LAW IN THE MAKING: A UNIVERSAL REGIME FOR DEEP SEABED MINING?

*Elliot L. Richardson**

On March 2, 1981, as diplomatic delegations were beginning to assemble in New York, the Reagan Administration provoked consternation in the corridors of the United Nations with a startling policy announcement. The United States, it was revealed, would not be prepared to agree to the conclusion of a Convention on the Law of the Sea at what many had hoped would be the tenth and final session of a Conference that has been going on for the last seven years.

The announcement was based on a preliminary United States reconsideration of the text, which had led to the conclusion that there were enough serious grounds for concern to warrant a more extensive review over a period of months, once the new subcabinet officials directly involved had been in office long enough to get their teeth into the issues. The principal area of concern was proposed arrangements for a new international authority to govern deep seabed mining. The announcement itself was drafted hastily by an interagency group in the office of newly confirmed Deputy Secretary of State William P. Clark.

Only five days later, on March 7, the Administration abruptly dismissed Ambassador George H. Aldrich as Acting Special Representative of the President for the Law of the Sea Conference. Aldrich, who served superbly as my deputy for three years, had succeeded me as "Acting" United States Representative and had expected to be asked to stay on for the Tenth Session. With Aldrich went two other senior career officers who had been with me throughout my tenure as chief negotiator.

When United Nations Secretary General Kurt Waldheim convened the first plenary meeting of the Tenth Session on March 9, I was not particularly surprised to hear reports of general dismay and uncertainty among the delegates of other participating countries. Did the announcements mean that the new administration had already virtually decided that the "package deal" that it inherited was not satisfactory? Or was the review to be genuinely objective, with neither adverse nor favorable prejudgments on the product of negotiations to date? The

* Senior resident partner of Milbank, Tweed, Hadley & McCloy, Washington, D.C. Ambassador Richardson headed the United States delegation to the Law of the Sea Conference from February 1977 to October 1980. He now serves as Chairman of the Public Advisory Committee to the delegation. A.B., Harvard University, 1941; J.D., Harvard University, 1947.

Although Ambassador Richardson is greatly indebted to Theodore S. Wilkinson and Lawrence M. Enomoto of the United States Department of State for valuable assistance in the preparation of this article, the views it expresses are his own.

answers were not immediately apparent to those assembled at Turtle Bay, nor are they clear now; no doubt they will be debated for some time to come.

Whatever the reasons for the volcanic events of early March, it may be instructive to review the background and the evolution of the issue of greatest controversy—the charter for an international regime to govern the exploitation of the deep seabed. An understanding of this complex but central issue is critical for those who need to know how we arrived at the present stage of negotiations and for satisfactory results from any further negotiations.

In many respects the Conference on the Law of the Sea has been a cumulative process of harmonization and codification of existing law, either customary or conventional (as embodied in the four 1958 Conventions[1]), but without regard to the provisions for the deep seabed. In defining the concept of the seabed as "the common heritage of mankind," the Conference was embarked on pure lawmaking on a clean slate—the creation of totally new rules of organization and conduct by some 160 nations, the most nearly universal assembly of representatives of the world's governments that has ever been convened. The last international legislative effort of equal or greater scope, the drafting of the United Nations Charter, was accomplished by the representatives of only fifty-one countries. Two-thirds of today's international community of nations, with all their heterogeneity, were at that time still under colonial administration.

Because of sheer numbers and diversity of participants, among other factors, the process of lawmaking involved in building consensus on the seabeds text has been slow and tortuous. Finding formulas to bridge gaps among the differing interests of all participants in the exploitation of the deep seabed has been the most challenging task before the negotiators. But the good will, industry, and ingenuity of a truly remarkable assembly of delegates have prevailed, and the results are gratifying, even though some adjustments may yet need to be made. Moreover, the *process* sets valuable precedents for future negotiations of similar scope.

This article first outlines the genesis of the "common heritage" concept; the framework for the negotiations of the 1970's undertaken to implement the concept; objectives of the seabed mining industry; and the difficulties of achieving miners' objectives within the negotiating framework. The article then describes the steps taken to overcome these difficulties in the Draft Convention on the Law of the Sea, and the parallel action that some governments are taking to harmonize na-

1. Convention on Territorial Sea and Contiguous Zone, April 29, 1958, 15 U.S.T. 1606, T.I.A.S. No. 5639, 516 U.N.T.S. 205; Convention on the Continental Shelf, April 29, 1958, 15 U.S.T. 471, T.I.A.S. No. 5578, 499 U.N.T.S. 311; Convention on the High Seas, April 29, 1958, 13 U.S.T. 2312, T.I.A.S. No. 5200, 450 U.N.T.S. 82; Convention on Fishing and Conservation of Living Resources of the High Seas, April 29, 1958, 17 U.S.T. 138, T.I.A.S. No. 5969, 559 U.N.T.S. 285.

tional seabed mining plans through legislation. Finally, it suggests some prospects for improving the Convention and potential supplementary actions that can be taken unilaterally by the United States or by others.

THE COMMON HERITAGE CONCEPT

Since Hugo Grotius predicated the freedom of the seas more than 300 years ago on two principles of Roman law—*res nullius* and *res communis omnium*[2]—these principles have been interpreted controversially both to defend and to deny the lawfulness of certain ocean activities by sovereign nations. The emergence of new technology has given rise to acute controversy over possible exploitation of the ocean floor. Potential seabed mining nations have used the *res nullius* principle to argue that manganese nodules, like fish, may be appropriated by any state or private enterprise. Conversely, developing countries have used the *res communis* principle to argue that manganese nodules may not be appropriated by anyone without agreed rules to ensure that exploitation of the seabed would be in the common interest.

By the mid-1960's, it began to seem that there would soon be little left on the ocean floor to argue about. The jurisdictional claims of coastal nations were no longer "creeping" seaward. They were on the march.

As one of the world's largest coastal nations, the United States stood to gain from an extension of its control over the resources of the shelf and the ocean floor. But our country stood to lose access to areas claimed by others. Moreover, the prospect of anarchic scrambling for national advantage posed real threats to the peace. Having weighed the various interests involved, President Johnson declared in 1966, "We must ensure that the deep seas and the ocean bottoms are, and remain, the legacy of all human beings."[3]

---

2. *Res nullius* is defined as "the property of nobody." BLACK'S LAW DICTIONARY 1174 (5th ed. 1968). *Res communis omnium* is defined as "the common possession of everyone." *Id.* at 1173.

3. Remarks of President Lyndon B. Johnson at the commissioning of the research ship, *Oceanographer*, 2 WEEKLY COMP. OF PRES. DOC. 930 (July 13, 1966). For more complete context, President Johnson remarked that

> [t]ruly great accomplishments in oceanography will require the cooperation of all the maritime nations of the world. And so today I send our voice out from this platform calling for such cooperation, requesting it, and urging it.
>
> To the Soviet Union—a major maritime power—I today extend our earnest wish that you may join with us in this great endeavor.
>
> In accordance with these desires I am happy to announce that one of the first long voyages of *Oceanographer* will be a 6-month global expedition in which the scientists from a number of our great nations will participate. It is our intention to invite Great Britain, West Germany, France, the U.S.S.R., India, Malaysia, Australia, New Zealand, Chile, and Peru to participate in the first round-the-world voyage of *Oceanographer*.
>
> We greatly welcome this type of international participation. Because under no circumstances, we believe, must we ever allow the prospects of rich harvest and mineral wealth to create a new form of colonial competition among the maritime nations. We must be careful to avoid a race to grab and to hold the lands under the high seas. We

In 1967, Arvid Pardo, Malta's Ambassador to the United Nations, made his now-historic statement calling for comprehensive United Nations action to reserve the seabed and ocean floor beyond the limits of national jurisdiction as "the common heritage of mankind."[4] To seek ways to realize Pardo's goal, the General Assembly in 1967 established the Ad Hoc Seabed Committee,[5] and in 1969, the majority of the General Assembly overrode the opposition of *res nullius* states, including the United States, in calling for a "moratorium" on all exploitation of the deep seabed pending the establishment of an international regime.[6] In 1970, a "Declaration of Principles," adopted by consensus of the General Assembly,[7] was somewhat more ambiguous on the legality of interim preparations for exploitation.

Whatever the nuances of national attitudes toward the "common heritage" principle, there was no question but that translating it into a workable regime would be the primary focus when actual negotiations began. Preliminary work had already been entrusted to a subcommittee of the United Nations Seabed Committee, and this became the charge of the First Committee of the Conference after its formal beginning in 1973. The remaining issues—navigation, continental shelf and coastal-zone delimitation, pollution, and marine science—were to be handled by the other main committees of the Conference.[8] Despite this

---

must ensure that the deep seas and the ocean bottoms are, and remain, the legacy of all human beings . . . .

Id.

4. *See* Note Verbale dated 17 August 1967 from the Permanent Mission of Malta to the United Nations addressed to the Secretary General, U.N. Doc. A/6695 (1967).

5. The Ad Hoc Sea-Bed Committee, composed of 35 States, was established by G.A. Res. 2340 (XXII), Examination of the Question of the Reservation Exclusively for Peaceful Purposes of the Sea-bed and the Ocean Floor, and the Subsoil thereof, Underlying the High Seas Beyond the Limits of Present National Jurisdiction and the Use of their Resources in the Interests of Mankind, 22 U.N. GAOR, Supp. (No. 16) 14, U.N. Doc. A/6716 (1968). A permanent Committee on the Peaceful Uses of the Sea-Bed and the Ocean Floor Beyond the Limits of National Jurisdiction, composed of 42 states, was established by G.A. Res. 2467A (XXIII), Examination of the Question of the Reservation Exclusively for Peaceful Purposes of the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, Underlying the High Seas Beyond the Limits of Present National Jurisdiction and the Use of Their Resources in the Interests of Mankind, 23 U.N. GAOR, Supp. (No. 18) 15, U.N. Doc. A/7218 (1969).

6. G.A. Res. 2574D (XXIV), Question of the Reservation Exclusively for Peaceful Purposes of the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, Underlying the High Seas Beyond the Limits of Present National Jurisdiction, and the Use of Their Resources in the Interests of Mankind, 24 U.N. GAOR, Supp. (No. 30) 11, U.N. Doc. A/7630 (1970). The resolution was adopted by a vote of 62 to 28, with 28 abstentions.

7. G.A. Res. 2479 (XXV), Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, Beyond the Limits of National Jurisdiction, 25 U.N. GAOR, Supp. (No. 28) 24-25, U.N. Doc. A/8028 (1971).

8. The General Assembly, . . .

(2) *Decides* to convene in 1973 . . . a conference on the law of the sea which would deal with the establishment of an equitable international regime—including an international machinery—for the area and the resources of the sea-bed and the ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction, a precise definition of the area, and a broad range of related issues including those concerning the regimes of the high seas, the continental shelf, the territorial sea (including the question of its breadth and the question of international straits) and contiguous zone, fishing and conservation of the living resources of the high seas (including the question of the prefer-

compartmentalization, no complete separation of the issues of the various committees would be possible, particularly in periodic plenary meetings. This, of course, was an additional complicating factor in designing the seabed regime.

THE FRAMEWORK FOR COMMITTEE I NEGOTIATIONS

Beyond the agreed organizational precepts, delegates who assembled for the first formal session of the Third United Nations Conference on the Law of the Sea (UNCLOS III) in July 1974 in Caracas were bound only by national instructions as to what the regime should look like. On the other hand, it was clear that the vast majority of participants were working on the basis of certain *a priori* principles and objectives derived implicitly from the debate and resolutions of the United Nations General Assembly over the preceding decade. To be broadly acceptable, the architecture of the regime would have to be consistent with these principles.

As a cardinal principle, it was universally understood that no claims of sovereignty would be recognized over portions of the ocean floor beyond the national jurisdiction of coastal states (that is, beyond the outer limit of the continental shelf, which was itself to be defined by Committee II).[9] The international commons of the ocean floor thus created came to be known simply as "the Area."

It followed that some form of international control would be needed to regulate any exploitative activities that might be contemplated, in particular the mining of manganese nodules. To exercise this control, there would have to be some form of collective governing body, eventually designated "The Authority," whose composition, functions, powers, and decisionmaking processes would need definition.

The views of delegations differed sharply, however, as to the extent of international control over seabed mining activities to be derived

---

ential rights of coastal States), the preservation of the marine environment (including *inter alia*, the prevention of pollution) and scientific research . . . .

G.A. Res. 2750C (XXV), Reservation Exclusively for Peaceful Purposes of the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, Underlying the High Seas Beyond the Limits of Present National Jurisdiction and Use of Their Resources in the Interests of Mankind, and Convening of a Conference on the Law of the Sea, U.N. GAOR, Supp. (No. 28) 26-27, U.N. Doc. A/8028 (1971).

9. The view that seabed claims have no basis in law was directly challenged by an assertion of exclusive rights to 60,000 square kilometers of the ocean floor by Deepsea Ventures, Inc., in a letter to Secretary of State Kissinger on November 14, 1974. Copies of the letter were sent to several other governments. In an unusually prompt reply for legal opinions (November 18), the Department of State made clear that it did not "grant or recognize mining rights to the mineral resources of an area of the seabed beyond the limits of national jurisdiction." This exchange is described and analyzed fully in Burton, *Freedom of the Seas: Jurisdictional Law Applicable to Deep Seabed Mining Claims*, 29 STAN. L.R. 1135 (1977). The author concludes that the concepts of *res nullius* and *res communis* are of limited applicability for uninhabitable areas, but that based on other legal and practical considerations, "mining of the deep seabed with reasonable regard for others is lawful, but exclusive mining claims, like the Deepsea Ventures claim, are not." *Id.* at 1180.

from the "common heritage" principle. Moreover, there appeared to be little interest in striking compromise on this issue. Obviously, it would not be easy to provide for a free market system with first-come, first-served competition under a superstructure negotiated by governments with widely differing economic philosophies.

To the developing countries, the "common heritage" concept offered an opportunity to advance the New International Economic Order—to put into practice an economic concept which heretofore had only been preached. Starting from the notion that the development patterns of the past were inseparable from an "imperialist," "colonialist," international hierarchy, the ideologues of the Group of 77[10] projected a "brave new world" for the exploitation of the seabed, under which all states would share in governance on an equal basis. Agile and loose-footed multinational corporations, no matter how adept at maneuvering among their bases of operations, would be given no toehold to operate independently. The international authority would be designed not only to regulate and supervise seabed mining but also to monopolize its operation. The only role for individual national industries, private or public, would be to provide facilitative services on a contractual basis. A potential seabed miner in its own good time, the USSR interpreted the "common heritage" as one shared by sovereign states; while seeking assured access to seabed mining for state-sponsored entities, the USSR also took advantage of openings for fulsome plenary statements expressing solidarity with Third World aspirations.

In contrast, the industrialized delegations of the West based their approach to the design of the "regime" on more pragmatic considerations. If mankind as a whole was to benefit from the riches of the seabed, a means to exploit these riches would first have to be developed. Vast preliminary expenses would be required, and the risks were high. The concept promoted by the Group of 77 seemed oblivious to the need to encourage such ventures.

PERSPECTIVE OF SEABED MINING INDUSTRY

Governed by economic imperatives rather than ideological abstractions, the world's potential seabed miners were involved in two particular activities of note in the mid-1970's: (1) continuing exploration of the ocean floor in search of the richest areas for potential extraction; and (2) competitive research and development toward the most effective means for eventual commercial mining. To sustain its investments

10. The "Group of 77" is an unofficial bloc of developing countries which emerged in response to various economic and political factors in 1964 at the first session of the United Nations Conference on Trade and Development. These nations "often act in the United Nations in a co-ordinated fashion." The Group of 77 has retained its name despite the fact that member nations now number 117. *See* P. HAJNAL, GUIDE TO UNITED NATIONS ORGANIZATION, DOCUMENTATION & PUBLISHING 116-17 (1978).

in these activities, the industry needed reassurance with respect to two paramount concerns:

First, individual mining enterprises would need guaranteed and exclusive access to specified areas of the ocean floor. Without such access, neither governing boards nor bankers would be inclined to take multi-million dollar risks involved in moving from research into a development phase of deep seabed mining.

Second, the prospects for a reasonable rate of return on investment would have to be auspicious. Necessary factors in assessing likely returns would include at least the cost of recovery, transport, and processing equipment for the minerals of the ocean floor; prevailing and projected metals prices; and any necessary payments to an international manager.

No major investor questioned the need for some form of agreed international Authority. Indeed, in the absence of such an Authority, would it make sense to proceed? What governments could reasonably be expected to support their constituent industries' claims and to guarantee security of tenure without the concurrence of key maritime states and hopefully also the vast majority of participants in UNCLOS III? Any government contemplating such unilateral action in the midst of negotiations would have invited a range of reprisals—legal, political, and, conceivably, even military. The United States did not, nor did others.

On the other hand, the Group of 77's insistence on creating a monolithic entity for seabed exploitation along the lines of a nationalized industry in a socialist country threatened to delay seabed-mining development indefinitely. Such an entity would have no prospect of access to developed countries' capital, and there was no realistic possibility that the developing countries would direct their own resources into deep seabed mining. Even if the necessary billions could be found, this would not in itself have assured that the necessary technology could be acquired.

The Western position at the outset was based upon diametrically opposed assumptions. The "common heritage" implied some form of international control over seabed mining but not the actual conduct of seabed mining operations by an international entity. It would have been sufficient to give the Authority the functions of a registration bureau. The Authority would be charged with licensing potential miners who could demonstrate compliance with clear technical criteria; collecting appropriate fees for licenses and, perhaps, a share of profits to be distributed among participants according to agreed formulas; and ensuring compliance with reasonable environmental regulations.

BRIDGING THE GAP: THE PARALLEL SYSTEM

Against this background of apparently irreconcilable conceptions of

the "Authority" emerged, early in the Conference, the idea of a "parallel system," opening up the opportunity for seabed mining both to nationally sponsored firms and to an international entity. First suggested by several developing countries, this classic, down-the-middle compromise was proposed by Secretary of State Henry Kissinger in 1976. Simply stated, the "parallel system" would provide for assured access to seabed mining sites for the industries of the developed countries on a relatively open, competitive basis; at the same time an equal number of sites would be reserved for eventual exploitation by an international "Enterprise" under the direct control of the international Authority. In addition, Secretary Kissinger agreed that the Enterprise, in order to be viable, should be provided with the necessary start-up financing and technology.

Although I concluded soon after becoming head of the United States Law of the Sea delegation that the parallel system had a better chance for acceptance than other alternatives such as a unitary system of joint ventures, it was far from certain early in 1977 that the compromise could gain broad enough support to produce a consensus in its favor. Neither the Group of 77 nor our own mining industry was convinced that its interests had been adequately accommodated. Further difficulties arose in the summer negotiating session of 1977, when a reasonably balanced draft negotiating text was radically and unacceptably altered at the last moment by the Chairman of the First Committee, without consultations with the United States or any other industrial country.[11]

The parallel system had been generally accepted in principle by early 1978, but controversy over the basic elements of the regime persisted. The question of a resource policy governing seabed exploitation—once considered a distinctly subordinate issue—had now become acute. Despite the broad interest of net consumers of seabed metals, who constitute the overwhelming majority of nations, the small group of land-based producers whose markets would be affected by seabed mining had formed an effective lobby.

Early in 1978, I identified three major issues that continued to beset the conference:

> (1) The first is the system of exploitation of the seabed. This issue opposes those whose optimum position calls for unlimited access to mine sites for qualified companies and State enterprises against those who would prefer to see all exploitation reserved for the international equivalent of a government monopoly. The issue posed is essentially one of economic pluralism versus state centralism projected on a global scale.
>
> (2) The second is the resource policy which guides and regulates seabed production. This issue involves many complex international

11. Informal Composite Negotiating Text, U.N. Doc. A/Conf.62/WP.10 (1977) [hereinafter cited as ICNT].

economic questions, such as whether all minerals on the seabed are subject to control by the Authority and whether the Authority's powers should extend to fixing prices and regulating markets. The question which perhaps most sharply divides the Conference is the extent to which the production of seabed minerals should be limited. Here the interests of consumers of these minerals—mainly nickel and copper—clash with those of land-based producers of the same minerals. Consumer interests would benefit from a liberal policy of unfettered production of seabed minerals; land-based producer interests, conversely, would benefit from a restrictive policy of limited production.

(3) The third contentious issue is the question of the governance of the international institutions created to manage seabed mining. This too is a multifaceted problem. The point of most intense dispute concerns the degree to which the international Authority should be controlled on a one-nation one-vote basis versus the degree to which recognition should be accorded to such major interests as those in production, investment, and consumption.[12]

The situation at that point seemed bleak enough that I also felt constrained to say:

The United States will do its part to achieve an equitable and durable outcome. We will go halfway to meet those with whom we differ. To go beyond that would be not only to sacrifice our own essential interests but to acquiesce in a global system incompatible with the interest of all countries in encouraging efficiency and innovation. I will not support, nor would I commend to the President, a treaty which creates a regime for the seabed that I cannot honestly defend as offering a reasonable basis for American companies to risk the enormous investments demanded by deep sea mining.

Rather than accept outcomes which we consider wrong for the United States and, we believe, would be wrong for the world community as well, we would reluctantly choose to forego a treaty. The United States does not need a comprehensive treaty more than other nations. Seabed mining can and will go forward with or without such a treaty. We have the means at our disposal to protect our oceans' interest if the Conference should fail, and we shall protect those interests if a comprehensive treaty eludes us.[13]

During the same period, it also seemed appropriate to make preparations for the contingency that there would be no agreed international regime for the seabed, at least not for some time to come, and work was intensified on draft United States legislation to cover the interim gap. The possibility of an alternative "mini-treaty," dealing only with deep seabed mining and embodying the licensing approach favored by the major western industrialized countries, but open to all countries, was floated for the first time, partly as a tactical ploy, partly as a fallback to

12. "The Law of the Sea Conference: Is a Comprehensive Treaty Still Possible?," address by Elliot L. Richardson at The Seapower Symposium of the Cincinnati Council of the Navy League of the U.S., Cincinnati, Ohio (Jan. 18, 1978).

13. *Id.*

be pursued if the Conference should fail to reach agreement on a comprehensive treaty.[14]

The slow but steady progress made in the three years since the 1977-1978 nadir of the negotiations would be the subject of another detailed article. Suffice it to say that 120 significant changes were made in the negotiating text to render it more acceptable to the western industrialized countries, versus fifteen changes that could be considered adverse from their viewpoint.

The consideration given in the West to interim and alternative solutions, in particular deep seabed mining legislation, seems to have had a cathartic effect. The legislation enacted by the United States[15] and the Federal Republic of Germany[16] in 1980, although designed merely to allow continued orderly development of seabed mining under an interim national regulatory system of licenses and permits pending an agreed conclusion of UNCLOS III, clearly sounded a warning note. France, Belgium, and the United Kingdom are in the process of enacting similar legislation. Japan, Italy, and the Netherlands may follow suit in due course.

The effect of enacted and proposed legislation has been twofold. On the one hand, outcries of indignation greeted the United States delegation on arrival in Geneva last summer for the Resumed Ninth Session of the Conference. The Group of 77 made clear, both individually and collectively, that no alternative to a universal regime, no "mini-treaty" among western industrialized states and such others as they could induce to join in it, would be tolerated by the vast majority. On the other hand, there is no doubt that the prospect of a collaborative arrangement among the industrialized democracies, to the exclusion of others, provided new impetus to UNCLOS III. The last, seemingly intractable issue of decisionmaking by the Council of the Authority was

14. *See* R. DARMAN, THE LAW OF THE SEA: RETHINKING U.S. INTERESTS, FOREIGN AFFAIRS, 373 (1978). Darman concludes:

> In sum, U.S. strategy should be reoriented in three rather different, but nonetheless mutually consistent, directions: (1) it should exhibit a clear-eyed willingness to accept Conference failure as a non-disastrous, indeed thoroughly tolerable, outcome. (2) It should deliberately seek to break down "North-South" polarization—not by concession, but by greater practical attention to, and argument on behalf of, interests that cut across North-South lines. (3) As both a hedge against Conference failure and a prod toward Conference success, it should proceed with the development of a "mini-treaty," outside the Conference framework. In addition, the United States must, of course, continue all conventional elements of negotiation in good faith—relying particularly on vigorous intersessional consultation and pre-Conference informal negotiation—across the full range of disputed issues. Whether this would be enough to yield a satisfactory comprehensive treaty, however, must remain uncertain.

Id. at 394.

15. U.S. Deep Seabed Hard Minerals Resources Act, 30 U.S.C.A. §§ 1401-1473 (West Supp. 1980) (to be codified in 30 U.S.C. §§ 1401-1473). The text of the U.S. Act is reprinted in 19 INT'L LEGAL MATERIALS 1003-20 (1980); for a discussion of the U.S. act, see Note, *Interim Deep Seabed Mining Legislation: An International Environmental Perspective*, 8 J. LEGIS. 73 (1980).

16. Fed. Republic of Ger. Act on Interim Regulation of Deep Seabed Mining, [1980] Bundesgesetzblatt [BGB1] I 9080 (W. Ger.). The German statute became effective August 17, 1980.

resolved, and with this achievement, the major elements of a Draft Convention that was very close to commanding consensus appeared to be in place. As noted above, delegates looked forward to concluding the Conference in 1981.

THE DRAFT CONVENTION

At this juncture, it is necessary to look in somewhat more detail at the Draft Convention itself and to examine how it would accommodate the essential objectives of the mining industry.

Assured Access

To be assured of the opportunity for deep seabed mining, a prospective miner who has the necessary capital and expertise must be assured that the International Seabed Authority's contract approval process is fair, clear, and well-nigh automatic. The criteria spelled out in Annex III of the Treaty satisfy this requirement.[17] An applicant has only to be sponsored by a State Party and to satisfy the specific financial and technical qualifications that are to be spelled out by a "Preparatory Commission" subsequent to signature of the Convention.[18]

The applicant's plan of work must fulfill the specifications with respect to such matters as size of area, diligence requirements, and mining standards and practices—including those relevant to the protection of the marine environment—that will be set forth in the regulations. If these requirements are met, the plan of work must be approved; there is no discretionary basis for its rejection.

The determination as to whether the applicant and his plan of work comply with the applicable criteria is made by a fifteen-member Legal and Technical Commission subordinate to the Council of the International Seabed Authority. The Commission is obligated to base its recommendations solely upon the provisions of Annex III and to report fully to the Council.

Any plan of work which the Commission finds consistent with the requirements of Annex III will be deemed approved by the Council

17. Draft Convention on the Law of the Sea (Informal Text), U.N. Doc. A/Conf.62/WF.10/Rev. 3 at 130-51 (1980) [hereinafter cited as Draft Convention]. The principal seabed regime provisions may be found in Part I (*id.* at 1), Part XI (*id.* at 49-80), and Annex III.

18. The Preparatory Commission will be established by a Conference Resolution. A draft of the resolution was proposed by the late President of the Conference, Ambassador Hamilton Shirley Amerasinghe. The Commission would, among other functions, draft the provisional rules, regulations, and procedures for the future Authority. Under the current text (art. 308, para. 4), these rules, regulations, and procedures would apply, pending their formal adoption pursuant to article 162, paragraph 2(n)(ii), and article 160, paragraph 2(f)(ii). Under article 161, paragraph 7(d), decisions by the Council concerning issues arising under article 162, paragraph 2(n), must be taken by consensus. Taken together, these provisions ensure that any rule, regulation, or procedure drafted by the Preparatory Commission would continue in effect so long as any member of the Council objected to a proposed change.

within a fixed time unless the Council decides, by consensus, to disapprove it. The automaticity of the system could only be frustrated if three-fourths of the Council made a conscious and determined effort to elect unsuitable Commission members who would ignore the requirements of the Draft Convention.

Return on Investment

Capital outlay, operating costs, and metal prices—not payments for the right to mine, such as fees, royalties, and profit shares—are the dominant factors governing the return on any mining investment. The latter, nevertheless, must not be excessively burdensome. In this respect, the Draft Convention's financial provisions are no worse than most other tax systems. The front-end load is modest in proportion to the size of the investment involved. It consists of "ground rent," which is payable until production begins, and the cost of prospecting the minesite, which is turned over to the Enterprise under the "banking" system.[19] The application fee is tied to the actual cost of processing the application but is limited in any case to $500,000. The "ground rent" of $1 million per year may be credited against royalties (the "production charge") once production begins and is waived if a contractor is held up by a lack of tonnage under the production ceiling.[20] The cost of prospecting a minesite is estimated at $10 million.[21]

Once production begins, the production charge and profit-sharing payments come into play. They take effect in two stages; the first, before the investment has been recovered, and the second, afterward. In the first stage, the production charge is 2% of market value of the processed metals produced by the project. In the second stage, it increases to 4% unless the return on investment in a given year would fall below 15%, in which case the production charge reverts to 2% for the year. The profit-sharing payments are based on a graduated, incremental schedule. During the first stage, the rates are 35% for income providing a return on investment of 10% or less, 42.5% for income providing a return between 10% and 20%, and 50% for income providing a return in excess of 20%. In the second stage, the corresponding rates are 40%, 50%, and 70%. Unlike the production charge which applies, in effect, to all proceeds, the profit share applies only to the fraction attrib-

19. The "banking" system is based on the concept that an applicant for a seabed mining contract must indicate the coordinates of an area sufficiently large and of sufficient estimated commercial value to allow two mining operations. Within 45 days the Authority will then designate which part of that area is to be reserved solely for activities of the Enterprise or for a joint venture with developing states. This designated area will become a reserved or "banked" site as soon as the applicant's plan of work is approved and contract with the Authority is signed. *See* Draft Convention, *supra* note 15, Annex III, art. 8, at 137.

20. The production ceiling is the interim system of limitation (not to exceed 25 years) under which an applicant's annual nickel production authorization is based on a 15-year trend line of nickel consumption. *See* Draft Convention, *supra* note 18, art. 151, and text accompanying notes 25-26 *infra*.

21. These are informal estimates provided by industry representatives.

utable to the mining portion of the project, or to 25% of the proceeds, whichever is higher.

Under this system, it should be noted, the Authority has no independent power to adjust or levy "taxes." The payments are fixed, and the Authority would simply serve as a bus conductor does in collecting payments from entrants.[22]

Protection Against Abuse

In addition to the assurance of access and the opportunity to earn a fair return on investment, the third essential requirement of a viable seabed mining regime is protection against the arbitrary or unpredictable exercise of the Authority's regulatory powers.

One measure of protection derives from the fact that a Preparatory Commission will be charged with drafting the Authority's initial rules and regulations. My own projection has been that the Commission would meet essentially full-time for perhaps two years. Experts will have more influence in such a forum than in the Law of the Sea Conference itself. The United States' Deep Seabed Hard Mineral Resources Act[23] requires similar rules and regulations and the coordination of these rules and regulations with other such regulations in interim arrangements with "reciprocating states." Thus, United States experts in the Commission's deliberations should be well-prepared to present convincing proposals based upon thorough review and perhaps experience with the early stages of implementation.

A second measure of protection against the abuse of power is the care with which the powers and functions of the Authority have been allocated. Although the text still refers to the Assembly as the "supreme organ" of the Authority, it is no longer possible to read this phrase in its present context as conferring power to usurp the executive role of the Council in managing the seabed mining regime.

Third, the Council itself has been prevented from taking majority action contrary to the vital economic interests of its seabed mining and consumer members. This was the most important single achievement of the 1980 Geneva Session. Amendments to the initial rules and regulations adopted by the Preparatory Commission, which will govern matters critical to the conduct of mining operations, will now require a

22. Although referred to as "taxes," the Authority would not in fact have "taxing" powers. In my reply, entitled "Factless and Feckless: Safire's Triumph of Yahooism," to a column by William Safire in the Washington Star of March 19, 1981, I made these points:

> Contrary to his claim that the International Seabed Authority would have "its own taxing powers," the fact is that the types and amounts of payments to be collected by the Authority are expressly set forth in the treaty. The Authority would no more have "taxing powers" than the fare collector on a bus. As to the legitimacy of any payments at all, the answer is that a community of nations should have the same rights with respect to resources owned in common as a single nation has toward its individually-owned resources.

The Washington Star, March 25, 1981, at A-17, col. 3.

23. 30 U.S.C.A. §§ 1401-1473 (West Supp. 1980) (to be codified in 30 U.S.C. §§ 1401-1473).

consensus of the Council. Consensus will also be needed for the rejection of a plan of work approved by the Legal and Technical Commission,[24] as well as for amendments to the Convention and measures to protect land-based producers. Most other issues will be subject to a three-fourths vote, and the remainder, to a two-thirds vote. Any new power assigned to the Council will require a consensus, if so provided in the rules and regulations confirming the power or if no voting rule is specified; any dispute as to the voting category to which an issue belongs will be decided by the higher—or highest—of the majorities in question. Not least, the United States has now been effectively assured a seat on the Council by a new provision which gives each interest group or regional group entitled to representation the right to select its own representatives.

Fourth, security of contract is explicitly protected, both against action of the Authority and against amendment by the eventual Review Conference scheduled for fifteen years after the commencement of commercial mining under the Authority. In fact, rules and regulations issued or revised subsequent to the conclusion of a mining contract could not be applied retroactively to that contract—a provision which may warrant some modification in the case of environmental regulations.

As a final measure of protection in the event that none of the foregoing safeguards prove sufficient, provision has been made for the binding adjudication of disputes. The dispute settlement procedure can be summarized as follows:

a. Any contractual dispute between a contracted miner and the Authority, or a dispute as to whether the terms offered by the contractor for the sale of his technology to the Enterprise are within the range of fair and reasonable commercial terms and conditions, may be taken to commercial arbitration by either party.

b. An eleven-member Seabeds Dispute Chamber of the International Tribunal for the Law of the Sea, to be established under Annex VI of the Convention, is also available to any State Party, to any contracting party, and to any miner who applies for a contract. The Chamber has the power to correct abuses of discretion or actions taken in excess of power, including failure to approve a plan of work. The Chamber can also be called upon by a commercial arbitral tribunal to interpret the Convention.

c. Disputes between State Parties may, at the option of either party, be brought before an *ad hoc* panel of the Seabed Disputes Chamber.

OTHER SENSITIVE AREAS

Although the hazards of uncertain access to mining sites, excessive

24. *See* text accompanying note 18 *supra*.

"bites" on return on investment, and abuse of authority have been carefully circumscribed in the Convention, there are other sensitive areas to consider.

The Production Ceiling

At the 1980 Geneva Session, it was agreed that approval of a plan for work will no longer be tied to the availability of a nickel-production allotment; however, the timing of access will remain dependent upon the authorization of production under the ceiling. The very existence of the ceiling has been troublesome for the United States and other consumers of seabed metals. They confronted a coalition of land-based producers and developing countries whose insistence on transitional protection against the loss of markets demanded some accommodation. As now formulated, the production ceiling is not likely to bar access to any qualified miner. The amount of permitted production is substantial, a "floor" has been added, and the constraint on seabed production is limited in duration.[25]

Because the formula in the text is based upon a projection forward of past trends, it is impossible to predict exactly what level of production will be allowed during the fifteen years that the limit will, in effect, apply. Taking 3.4% as a reasonable and conservative projection of the nickel-consumption growth rate[26] and 1988 as the earliest practicable start-up date for commercial production, the first group of miners to apply for production authorizations could produce an aggregate of about 200,000 tons of nickel annually. On the same assumptions, the limit would be 320,000 tons in 1992, 490,000 tons in 1997, and 590,000 tons in 2002.

In fact, the fifteen-year, trend-line growth rate for nickel consumption is currently about 3.9%, and, if that rate were to hold up in the future, the tonnage allowed to seabed mining would be considerably higher. If future growth should turn out to be significantly lower than anticipated, the full effect would not be felt because of the "floor" provision in the formula. This provision substitutes a hypothetical minimum growth rate of 3% for any actual rate lower than 3%. Even if the actual growth rate fell as low as 2.2%, seabed miners could—if they thought that they could make money in the kind of economic climate implied by such a discouraging trend—still supply up to 18% of the nickel market in the first year of production and up to 36% by the fifteenth year. Notwithstanding the share of production taken up by

25. The production limitation is tied to an "interim period" of 25 years. In fact, however, it will be in full effect for only 15 years. The interim period begins five years before commercial production from the seabed starts, so it covers only 20 years of production. Contracts signed in the last five years of the period, however, can call for production to begin after the limit expires. Thus, only projects operating on a commercial scale during the first 15 years of the industry are necessarily affected.

26. This percentage represents the United States Bureau of Mines' 1980 mid-range projection for the balance of this century.

the Enterprise, acting alone or in joint ventures, there would still be sufficient tonnage under any reasonable set of assumptions to ensure that private miners would get their authorizations when they need them. It is thus probable that market forces, not the production limitation formula, will determine how much nickel—and therefore how much copper, cobalt and manganese—will be produced by the first generation of seabed mining projects.

Transfer of Technology

Originally endorsed by Secretary of State Kissinger in 1976 as part of the package compromise to set up the "parallel system," some form of assistance to the Enterprise in acquiring technology has since that time been an integral element of negotiations. Since 1977, the United States' negotiating objectives have been to confine the obligation to a specific, carefully limited one within the context of this Convention alone. This has been a tough, hard-fought battle, and it now seems likely to go through at least one more round.

One of the unacceptable defects of earlier drafts of the Convention was a provision making the transfer of technology a condition for obtaining a contract.[27] The current text now bars the Enterprise from invoking the technology-transfer obligation until after the contract is in effect and until the Enterprise has found, despite a good faith effort, that it cannot purchase the technology it needs on the open market. There may well be sellers eager to spread their research and development costs. And since the Enterprise can, in any case, acquire technology under a joint arrangement, it may never seek to obtain technology by other means. If the Enterprise does have occasion to invoke the obligation, it must do so on the basis of "fair and reasonable commercial terms and conditions;" any dispute as to the application of this standard is subject to commercial arbitration. The obligation expires, in any case, ten years after the Enterprise has begun commercial production.

In addition, the technology covered is limited to the "specialized equipment and technical know-how . . . necessary to assemble, maintain and operate" the mining system.[28] A major effort by the Group of 77 to get the obligation extended to processing technology and manufacturing data was blocked. In the case of technology that a miner uses but does not own, the miner is required to obtain the owner's written assurance, which need not be legally binding, that the owner will be prepared to do business on a similar basis with the Enterprise. The miner must also be willing to try to acquire the legal right to transfer to the Enterprise the mining technology that he uses but does not own, if he can do so without substantial cost to himself.

27. *See* ICNT, *supra* note 10, arts. 4c(ii) & 5(iv).
28. Draft Convention, *supra* note 15, Annex III, art. 15, para. 18.

Despite strong opposition by industrialized states, the technology transfer provisions still contain the so-called "Brazil Clause."[29] This clause allows one or more developing countries to take advantage of these provisions in the event that the Authority authorizes them to exploit the reserved site "banked" for the Enterprise by the miner whose technology is sought, instead of keeping the site in reserve to be exploited eventually for the Enterprise. The problem is more political than practical, as there is little chance that the option will ever be exercised. Given the cost of buying the technology and meeting the other capital requirements of a mining project, it is scarcely conceivable that any developing country or group of developing countries will ever undertake seabed mining on its own. It would make far more sense, and is thus far more likely, that it would choose instead to enter into some form of association with either the Enterprise or with a multinational company, both of which will possess the technology.

HARMONIZED NATIONAL PROGRAMS

Whether or not the above considerations will yet prove sufficiently reassuring to leading mining representatives with respect to the basic provisions of the Convention itself, those representatives still must deal with uncertainties during the interval between signature and entry into force of the Convention. I have already noted that some states have taken steps to reduce the element of uncertainty through domestic legislation. In the United States, the 1980 Deep Seabed Hard Mineral Resources Act[30] expressly established interim regulatory procedures for ocean mining by United States' citizens. At the same time, it reaffirmed the United States' commitment to an acceptable Law of the Sea Convention and placed a moratorium on commercial recovery of seabed minerals until January 1, 1988, which should allow ample time for the Convention to come into force. At such time as the treaty does enter into force for the United States, it will automatically supersede any legislation inconsistent with it. Similarly, the German Act on the Interim Regulation of Deep Seabed Mining[31] establishes only provisional, interim regulations, and placed a moratorium on commercial recovery until January 1, 1988.

Both of these deep seabed mining laws look toward the establishment of interim, "reciprocating states" arrangements among potential western industrialized deep seabed mining states. Under such arrangements each state would recognize the licenses for exploration and permits for exploitation issued by another reciprocating state under compatible or "harmonized" regulations. Such reciprocating states arrangements would give interim assurance to seabed miners that they

29. *Id.* Annex III, art. 3(e).
30. 30 U.S.C.A. §§ 1401-1473 (West Supp. 1980) (to be codified in 30 U.S.C. §§ 1401-1473).
31. [1980] BGBl 9080 (W. Ger.).

have specific mining rights which would be recognized by certain other states. Among the limited group of reciprocating participants at least, the arrangements should create a more stable legal framework, as well as provide for protection of the marine environment and safety of ocean mining operations. As an interim measure, the establishment of reciprocating states arrangements can thus lay the groundwork for potential deep seabed miners to sort out a *modus vivendi* among themselves and perhaps develop some understandings upon which rules and regulations for the Authority can be based.

But for these arrangements to serve as an *alternative* or a *substitute* for the eventual establishment of the universal regime foreseen in the Draft Convention is another matter. However simple and practical reciprocal arrangements may seem to some, a system limited only to the states that are capable of engaging in deep seabed mining is not "in the cards" as a long-term solution. It is difficult to argue that one group of states can be the sole arbiter of what the "common heritage of mankind" means. We must find a definition upon which all can agree, which entails continuing refinement of the Draft Convention and, at the same time, discussion of reciprocating states arrangements.

IMPROVING PROSPECTS FOR THE CONVENTION

To enhance prospects that the universal regime incorporated in the Draft Convention will ultimately be ratified by all or most of the world's nations, two general lines of endeavor are necessary: first, to improve treaty provisions so as to ameliorate continuing concerns of private industry in the developed countries; and second, for governments to undertake domestic measures aimed at easing the transition into a treaty regime for their national industries.

As an essential condition for supporting the Convention, the mining industry is thoroughly justified in insisting upon some form of interim protection of investment. Ideally, absolute protection against disputes over minesites, against the risk of insufficient production allocation, and against the possibility of denial of a contract by the Authority could all be provided by a binding "grandfather clause." It is obvious, however, that the Conference will never go that far. Such a clause would preempt the Authority's role with respect to the first group of contracts; moreover, it would seem to give the mining consortia on one side of the parallel system an unjustified advantage over the Enterprise on the other side. At the Ninth Session in New York during 1980, the United States submitted an informal working paper which would at least eliminate the risk of disputed minesites.[32] The United States proposal envisaged that seabed mining investors would submit proposals for two sites to the Preparatory Commission. One of these would be

32. Informal Working Paper by the United States, dated April 2, 1980: An Approach to Investment Protection, iA/I, U.N. Doc. 80-8005 (1980).

reserved ("pre-banked") for the Enterprise. The other would be certified as having priority vis-a-vis any other later application before or after the establishment of the Authority. This would, in effect, create an absolute priority for the early pre-treaty investor, in case any other applicant were to request the same site.

We should also, I believe, seek certain supplementary provisions. To cope with the risk that a miner with major investments in development might be denied a contract by arbitrary action by the Legal and Technical Commission, the miner should be given the right to appeal any such decision to commercial arbitration, where of the available forms of dispute settlement, political bias would be least likely. To ensure an adequate production allocation, early investors (with continuing records of sustained development activity) should be favored over late entrants.

Although additional provisions of this nature would be desirable, we must recognize that to be acceptable to developing countries, an interim investment protection system will also have to take into account possible preparatory needs of the Enterprise. Such consideration is necessary in order that the parallel system can be realized. To a limited extent, it may be feasible for the potential mining countries to help meet these preliminary needs with regard to training of personnel and the provision of technical data on proposed minesites.

In addition to further amendments that may be sought in the text of the Draft Convention, there are certain purely domestic actions which the United States and other industrialized countries could take to minimize the uncertainties for seabed miners. First, some form of preparatory investment protection under the treaty might be combined with domestic risk insurance. Thorough analysis of the real risks—which, as I have shown, are already carefully circumscribed and which can be further reduced by the final text, as well as by the rules and regulations—might persuade private insurance companies that they could profitably underwrite a commercial program of risk insurance. The risks involved would probably not, in any case, be significantly greater than those foreseen in the United States' legislation that created the Overseas Private Investment Corporation.[33] Strategic considerations, moreover, must not be overlooked. In the unlikely event that actuarial calculations indicated premium costs higher than the mining industry could reasonably be expected to bear, an undisputed right to the seabed's manganese and cobalt, of which North America is virtually barren, could warrant a risk insurance program involving some element of government subsidy. Even that would be cheaper than the cost of covering the risks inherent in attempting to undertake deep seabed mining without a treaty.

33. Foreign Assistance Act of 1961, Pub. L. No. 87-195, 75 Stat. 424 (codified at 22 U.S.C. §§ 2191-2406 (1976 & Supp. III 1979); Exec. Order No. 11,579 Regarding the Overseas Private Investment Corporation, 36 Fed. Reg. 969 (1971).

Second, the United States government should resolve the issue of the tax treatment to be accorded the profit-sharing payments to the International Seabed Authority made under the Draft Convention by entities subject to United States taxation. The Department of State has argued, correctly I believe, that such payments are no less entitled to credits than taxes paid to a foreign government.[34] Although a firm decision is not needed until the relevant portions of the text are final, a favorable resolution of the tax-credit issue could make a critical difference in the mining industry's willingness to go forward under the Convention's regime.

Another purely domestic action which could reduce the financial burdens of seabed miners would be amendment of the Deep Seabed Mineral Resources Act[35] so as to facilitate the transition from interim reciprocating states arrangements to the Convention's regime. In particular, there could be tax credits for expenses incurred on any outlay which is demonstrably intended to enhance the viability of the parallel system (for example, training personnel for the Enterprise).

Finally, there is room for maneuvering by private enterprise. Potential arrangements for mining consortia to explore a minesite for the Enterprise would provide an earnest example of the miners' intent to respect and to help implement the parallel system. Genuine efforts to promote the training of future employees of the Enterprise would have a similar effect.

For the sake of a pioneering new industry, as well as for avoiding conflict in the oceans, it is devoutly to be wished that a combination of these measures, and perhaps others, will lead to the final compromises on the text of the Draft Convention that are now needed. We can then look forward to a new chapter in international cooperation—an International Seabed Authority that not only *regulates* but also *operates*. The key to this consummation is the United States policy review now under way. If our negotiating objectives are realistic we have every propect of attaining them. If they are not realistic—if we overreach

34. This Department's position is set forth in a letter of May 6, 1978, from Warren Christopher, then acting secretary, to James T. McIntyre, Jr., Director of the Office of Management and Budget. In support of the Department of State view, the following reasons are offered in the letter:

> First, a tax credit for profit-sharing payments would reinforce the position we have taken in the law of the sea negotiations that the Authority should derive most of its revenue from income-type taxes, as opposed to auction fees or royalties. We have maintained that a profits or income tax would take account of the economic uncertainties of seabed mining by having the Authority share in the profits as well as the risks of deep seabed mining.
>
> Second, a tax credit would put profits taxation by the Seabed Authority on a par with profits taxation of U.S.-owned firms operating in foreign countries, such as Canada. To deny tax credibility for profit-sharing payments to the Authority would, thereby, create a tax bias against seabed mining as opposed to land-based mining conducted by American companies in foreign countries where profits taxes are creditable against U.S. income tax liability.

Id.

35. 30 U.S.C.A. §§ 1401-1473 (West Supp. 1980) (to be codified in 30 U.S.C. §§ 1401-1473).

and demand too much—we shall not only reduce our chances of improving the deep seabed mining regime but also jeopardize the Draft Convention's undisputed benefits to other United States interests.