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NOTE

LAW OF THE SEA TREATY: REPORT ON THE ENTERPRISE

I. INTRODUCTION

The Draft Convention on the Law of the Sea\(^1\) will, when ratified and implemented,\(^2\) establish an Authority\(^3\) to organize and control activities conducted in the oceans by state parties outside of their jurisdictional limits.\(^4\) Also to be established is the Enterprise, an internationally funded and staffed corporate-style organization.\(^5\) The Enterprise will be the mechanism through which the Authority will conduct operations in that portion of the seas beyond State control referred to as the Area.\(^6\) The operations will include the mining, transporting, processing and marketing of the minerals retrieved by the Enterprise.\(^7\) A primary purpose of the Draft Convention is to create a regime through which the benefits of the vast untapped mineral wealth of the Area can be shared among all nations under the principle that these resources are the common heritage of mankind.\(^8\)

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2. The Treaty will enter into force 12 months after the sixtieth instrument of ratification or accession is deposited with the Secretary General of the United Nations. Id. art. 308.
3. Id. arts. 156-158.
4. The Area is defined as the seabed and ocean floor, including the subsoil, found beyond the limit of national jurisdiction. Id. art. 1(1).
5. Id. art. 170; Annex IV, arts. 1-13.
6. Draft Convention, supra, art. 1(1).
7. Draft Convention, supra, Annex IV, art. 1(1).
8. Draft Convention, supra, art. 140. Other principle purposes for the creation of the Law of the Sea Treaty is to codify norms relating to: territorial seas and contiguous zones, id. arts. 2-33; straits used for international navigation, id. arts. 361-615; rights of archipelagic states, id. arts. 46-54; exclusive economic zones, id. arts. 55-75; continental shelf, id. arts. 76-85; high seas, id. arts. 86-120; enclosed or semi-enclosed areas, id. arts. 122-123; the right of access of land-locked states to and from the sea and freedom of transit, id. arts. 124-132; protection and preservation of the marine environment, id. arts. 192-237; marine scientific research, id. arts. 238-265; and the settlement of disputes, id. arts. 279-299.

It should be clearly stated at the outset, that the various claims made by the developed and developing nations regarding the use of the oceans will be discussed in a generalized manner. There are numerous differences within these two groups with re-
II. GENERAL CLAIMS: THE BROAD CONTEXT

Common interests motivated the world community to begin negotiations directed toward the codification of a legal regime for an area of our world over which no nation has undisputed jurisdiction. Customary international law and the multilateral treaties in existence were insufficient to deal with the complex problems stemming from the growing usage of the seas by nations around the world. Such difficulties arose as coastal states and sea-going nations increasingly initiated opposing jurisdictional claims regarding the oceans. Concerns with these conflicts led to the decision that a comprehensive approach was necessary to deal effectively with the oceans.

A. The Industrialized Countries

A primary concern of the United States and other great powers

spect to individual national concerns. Nevertheless, for the purpose of understanding the context in which the Enterprise evolved, such generalizations are sufficiently accurate.


12. Preamble, Draft Convention, supra note 1, at 1. The preamble recognizes that "the problems of ocean space are closely interrelated and need to be considered as a whole." Id.

13. Foremost among the commercial concerns regarding navigation was the transportation of oil, an activity upon which Western economies are highly dependent. See Darman, supra note 11, at 381-82.
during the last few decades has been the rapidly expanding jurisdictional claims made by coastal nations. Many nations have been claiming jurisdiction over areas of the sea beyond the traditional three mile limit. Were this to go unchecked, the impact on the existing freedoms of the maritime movement of commercial traffic and the mobility of military forces would be severe. If the trend were allowed to continue, the ultimate result would be the unilateral division of the oceans.

In addition to claims for freedom of navigation, the developed nations want to proceed with the extraction of oil and minerals from the seabed area beyond national jurisdiction. The deep seabed natural resources, of interest here, are limited in supply and critical in importance to Western economies. The advancement, therefore, of ocean mining technology, coupled with impressive estimates of vast amounts of recoverable minerals, provided further motivation to seek an international agreement on the legal status of the oceans. Other general claims, for example, relate to the management and conservation of marine resources, the protection of the marine environment and coastlines from pollution, access to the oceans for scientific research and mechanisms for the peaceful settlement of various types of international disputes regarding the oceans.

14. The “jurisdictional creep” had involved 101 countries by 1980. These nations have claimed from 12 to 200 mile territorial seas. Certain of these claims restrict the right of innocent passage by requiring prior authorization or notification. Richardson, Power, Mobility and the Law of the Sea, 58 FOREIGN AFF. 902, 904-05 (1980). The 12 mile claim, if implemented globally, would close more than 100 straits. Id. at 905.

15. Darman, supra note 11, at 375.

16. The transportation of oil is an example of such traffic. Id. at 381-82. The “freedom of transit” is an important maritime freedom. Territorial sea claims of twelve miles or more by coastal nations would close off more than 100 straits from traditional high seas transit and instead impose “innocent passage” requirements that are more restrictive. Id. at 375.

17. There is a pressing importance attached to the projection of United States power for the protection of vulnerable Middle East oil and oil tanker supply lines. Moreover, the United States may desire to exert its influence in areas far from its borders by a demonstration of military resolve. The United States Navy provides the needed flexibility to perform such protective and deterrent missions. See Richardson, supra note 14, at 906-10. For a discussion of United States strategic interests, including the need to position anti-submarine listening devices on the continental shelf, see Osgood, U.S. Security Interests in Ocean Law, 2 OCEAN DEV. & INT’L L. 1, 3-5 (1970).

18. Darman, supra note 11, at 381.

19. Arrow, supra note 9, at 340.

20. The minerals are in nodule form and are primarily composed of nickel, manganese, copper and cobalt. For a detailed discussion of the contents of the nodules, the uses for the metals of which they are composed, and the strategic importance of these metals to the United States, see id. at 340-44.


22. Note, supra note 11, at 904.
B. The Emerging Countries

A primary claim made by the developing countries is that the resources in the Area do not belong to individual nations, but are the common property of the world community of nations.\textsuperscript{23} The developing countries felt that no part of the Area should be appropriated by any one nation, but should be exploited for the benefit of mankind as a whole.\textsuperscript{24} This concept was adopted in 1971 as a resolution of the United Nations General Assembly\textsuperscript{25} by a vote of 108 to 0, with 14 abstentions.\textsuperscript{26} But the method of achieving this internationally accepted goal of sharing seabed resources was not easy to agree upon.\textsuperscript{27}

The Law of the Sea Convention grew from a need and desire to reconcile all these conflicting claims. The major industrial powers accepted, within the total balance of the Law of the Sea package, the general principle of sharing. In return, they were guaranteed access to the Area for commercial purposes and guaranteed rights of transit passage with definitive territorial sea jurisdiction limits.

III. SPECIFIC CLAIMS: THE AUTHORITY AND ENTERPRISE

The vehicle through which the sharing of resource profits will take place is the Authority.\textsuperscript{28} The Authority will collect taxes from seabed miners\textsuperscript{29} and regulate production levels to protect the economies of land-based producers of similar minerals.\textsuperscript{30} Aside from these functions, the Authority is empowered to sponsor mineral exploitation through its operational arm, the Enterprise.\textsuperscript{31} The Enterprise is designed to become a financially viable organization that will be able to effectively compete with the international mining consortia already formed and

\begin{itemize}
  \item \textsuperscript{23} See generally Adede, Law of the Sea - Developing Countries' Contributions to the Development of the Institutional Arrangements for the International Sea-bed Authority, 4 Brooklyn J. Int'l L. 1 (1977).
  \item \textsuperscript{24} Draft Convention, supra note 1, art. 140.
  \item \textsuperscript{25} Declaration of Principles, supra note 9.
  \item \textsuperscript{26} Murphy, supra note 9, at 539. The United States voted in favor of the resolution. Id.
  \item \textsuperscript{27} A major ideological barrier was the developing nations' call for a new international economic order. This goal is based upon a redistribution of the world's wealth and technology in favor of the developing nations. Acquiescence by the developed nations to a plan for the effective distribution and international sharing in the profits from seabed mining was viewed as a major step toward that goal. Hardy, The Implications of Alternative Solutions for Regulating the Exploitation of Seabed Minerals, 31 Int'l Org. 313, 329 (1977).
  \item \textsuperscript{28} Draft Convention, supra note 1, art. 157.
  \item \textsuperscript{29} Id. Annex III, art. 13.
  \item \textsuperscript{30} Draft convention, supra note 1, art. 151(2)(b).
  \item \textsuperscript{31} Id. art. 170.
\end{itemize}
ready to begin mining operations.\textsuperscript{33} After an initial start-up period, the Enterprise will be taxed by the Authority.\textsuperscript{34} The funds will be distributed to developing nations and adversely affected land-based mineral exporters.\textsuperscript{35}

A. The Industrialized Countries

Based upon scientific studies, the developed nations consider the seabed as a potent, long-term source of scarce raw materials.\textsuperscript{36} They desire to develop the Area with a minimum of international bureaucratic market controls. These nations argue that if the aim is to generate maximum revenue for the Authority, there should be few controls on production as the free market forces are the most efficient stimulant to production.\textsuperscript{37} From this view, unrestrained access is the best, and perhaps the only, way to create an economic climate that would stimulate risk taking by private investors.\textsuperscript{38}

It is emphasized that free market economies cannot compel investment despite a strategic need for certain metals.\textsuperscript{39} The only way to ensure that necessary large capital outlays will be forthcoming is to create a legal regime that will protect corporate interests. This means a voting system, within the seabed Authority, that will be responsive to the need for corporate profits in these capital-intensive ventures.\textsuperscript{40}

The industrialized countries claim that the Authority, as now designed, will be guided by the tyranny of the majority; namely, the developing countries.\textsuperscript{41} The Assembly, to be composed of all treaty sig-

\textsuperscript{32} Mining Consortia or Corporate Miner as used hereinafter will refer also to State Parties or States' Entities or natural juridical persons. Id. art. 153(2)(b).

\textsuperscript{33} Id. Annex III, art. 13.

\textsuperscript{34} Draft Convention, supra note 1, art. 173(2). The funds of the Authority must first be applied to meet the administrative expenses of the Authority. Id. art. 173(1). The remaining funds may be distributed by the Authority in an equitable manner by taking into consideration the particular interests and needs of the developing countries. Id. art. 160(2)(f). In addition, the Assembly is directed to establish a system of compensation or other measures of economic adjustment assistance to aid developing countries that suffer serious adverse effects on their export earnings or economies resulting from a reduction in the price of an affected mineral or the volume of mineral exported, to the extent that such reduction is caused by activities in the Area. Id. art. 151(4).

\textsuperscript{35} Arrow, supra note 9, at 341-44.


\textsuperscript{37} Id. at 530.

\textsuperscript{38} See generally Hardy, supra note 27, at 329. Hardy discusses the ideological debate between the free market advocates and the developing nations' call for a new international economic order in the context of Seabed mining and the common heritage of mankind.

\textsuperscript{39} See infra notes 63-71 and accompanying text.

\textsuperscript{40} Adede, supra note 23, at 42.
natories and to be regarded as the supreme organ within the Authority, is based upon the democratic principle of one-nation, one-vote, in its decision-making process.\textsuperscript{41} The industrialized nations, although possessing much of the world’s economic and political power, are limited in number; therefore such a voting system would render them underrepresented in relation to their power.\textsuperscript{42}

The industrialized nations assert that their mining companies will suffer a competitive disadvantage because the Enterprise will initially operate free of tax obligations to the Authority.\textsuperscript{43} They also fear that their corporate representatives are to be subjected to an arbitrary system of price and production controls that unreasonably favor the interests of land-based miners, who would be largely unaffected by seabed mining for almost twenty years.\textsuperscript{44} Finally, it is claimed that the forced transfer of technology ignores the fact that its development results from both economic incentives and property rights.\textsuperscript{45} Lack of protection for technological developments negates the incentive to develop new technologies necessary for any deep seabed exploitation. Without such technology, no one could benefit from seabed mining.

The industrialized nations want clear and precise language in the Treaty to minimize discretionary action by the Authority. They are concerned with predictability under the licensing regime for mine operations. Hence, they want these contract obligations to be explicit\textsuperscript{46} and detailed, especially regarding the granting of licenses and the security of tenure at the mine sites.

\section*{B. The Emerging Countries}

The developing nations, on the other hand, claim that an effective legal mechanism is necessary to protect the world’s “last great store of undivided and accessible resources.”\textsuperscript{47} They do not want parts of the

\begin{itemize}
\item \textsuperscript{41} Draft Convention, supra note 1, art. 159(1)(5).
\item \textsuperscript{42} Darman, supra note 11, at 387-88. The Authority, which would be governed by the Assembly, is based on a “one-state, one-vote” system, “a system which bears no sensible relationship to one-man, one-vote democracy, or to the real distribution of power, values or interests.” Id.
\item \textsuperscript{43} Draft Convention, supra note 1, Annex IV. art. 10(3).
\item \textsuperscript{44} Pontecorvo, \textit{Reflections on the Economics of the Common Heritage of Mankind: The Organization of the Deep Sea Mining Industry and the Expected Benefits from Resource Exploitation}, 2 Ocean Dev. & Int’l L. 203, 208 (1974). “[T]he existing rate of growth in demand seems to be in excess of the rate of growth of ocean output so that any impact, over the next decade, on land-based producers and price would be very modest.” Id.
\item \textsuperscript{45} Darman, supra note 11, at 387-88.
\item \textsuperscript{46} Lowe, supra note 36, at 531. At present, the extent of the Authority’s power is uncertain. Id.
\item \textsuperscript{47} Id. at 489.
\end{itemize}
Area to become the new colonies of the industrialized nations. To this end, they desire strong central control over mining activities. The developing group of nations want to ensure that they will, in fact, derive benefits, as co-owners, from exploitation of the common heritage of mankind. This is viewed as an important, potential source of steady financial revenue, badly needed to offset the damage to their fragile economies caused by world-wide economic instability.

Within this group of developing nations, land-based producers of copper, manganese, nickel and cobalt derive substantial earnings from mineral exports. They desired production controls over the seafloor miners in order to minimize disadvantageous metal market price fluctuations that may occur when the supply of a commodity, relative to demand, increases markedly.

Consequently, the developing nations want generalized language in the Convention stating broad principles and leaving implementation of these principles to the Authority. Within the Authority, the developing nations will command substantial majorities, thus, generalized language will make future interpretation of the principles and provisions more susceptible to a slant in their favor.

The developing nations, unable to effectively provide the financial and technological necessities to the Enterprise, convinced the developed countries to do so. This compromise was known as the parallel or twin track system, with the Enterprise on one track and the corporate miners on the other. Guarantees of access to the seabed resources and

48. Id. at 494. It has been suggested that a powerful Authority that reflects majority interests could prevent one or more of the developed nations from achieving a dominant position in the exploitation of the Area. Richardson, Introduction to Law of the Sea XI, 16 San Diego L. Rev. 451, 454 (1979). John Breaux notes that France, the United Kingdom, Japan and the Soviet Union are also concerned with the prospect that one nation, namely the United States, will obtain an overwhelming competitive and strategic position. Breaux, The Diminishing Prospects for an Acceptable Law of the Sea Treaty, 19 Va. J. Int'l L. 257, 270-71 (1979).

49. Lowe, supra note 36, at 523.

50. Murphy, supra note 9, at 535. In addition to a concern for a new source of incremental wealth, there is a fear that the industrialized nations will begin seabed operations before a treaty to prevent the confiscation of these resources becomes effective. Id.

51. Id. at 534-35. Canada, a major exporter of nickel, supported the developing nations on this point. Id.

52. Lowe, supra note 36, at 511. The functions of the Authority would be discharged by a thirty-six state Council, guided by policies laid down by the Assembly, chosen with regard to equitably distributing seats among all geographical regions of member states. Id.

53. Richardson, supra note 14, at 917. Although the parallel system has been agreed to, there are still significant details yet to be resolved such as voting rights in the Council and production ceilings. For a discussion of the details of financing to be provided for the Enterprise, see Oxman, The Third United Nations Conference on the Law of the Sea: The Eighth Session (1979), 74 Am. J. Int'l L. 1, 13-15 (1980).
meaningful voting rights within the Authority were conceded in return for solid commitments to initially finance the Enterprise and provide it with the technology necessary to become an effective operation.

IV. ENTERPRISE: FINANCE, OPERATIONS, TECHNOLOGY

The rules governing the Enterprise are set forth in Annex IV of the Convention. Other applicable language appears in Annex III and in Part XI of the main contents. Since the Enterprise is structured as an element of the Authority, a brief look, at the principal organs of the Authority will prove useful.

A. The Authority

Not surprisingly in the creation of a new international organization, the proposed treaty envisions a composition similar to the United Nations structure of the Security Council and General Assembly. The Authority is composed of two decision-making elements, the Assembly and the Council. The Council, composed of thirty-six nations representing different economic, political and geographic factors, will have the power to approve or disapprove a mining contract application. The Council, as the executive organ of the Authority, will also be responsible for determining all of the specific policies of the Author-

54. Draft Convention, supra note 1, Annex IV.
55. Draft Convention, supra note 1, arts. 159, 160. The Assembly is the supreme organ of the Authority.
56. Id. arts. 161-165. The Council has a more direct and significant relationship with the Enterprise than does the Assembly and therefore will be examined first.
57. Id. art. 161(1).
58. Id. art. 162(2)(j). This article provides that the Council shall approve plans of work in accordance with Annex III, article 6. The Council shall act upon each plan of work within 60 days of its submission by the Legal and Technical Commission at a session of the Council in accordance with the following procedures:

(i) if the Commission recommends the approval of a plan of work it shall be deemed to have been approved by the Council if no Council member submits to the President within 14 days a specific written objection alleging non-compliance with the requirements of Annex III, article 6. In the event that there is an objection, the conciliation procedure contained in article 161, paragraph 7 (e), shall apply. If, at the end of the conciliation process, the objection to the approval of the plan of work is still maintained, the plan of work shall be deemed to have been approved by the Council unless the Council disapproves it by consensus among its members excluding the State or States, if any, making the application or sponsoring the applicant;

(ii) if the Commission recommends the disapproval of a plan of work or does not make a recommendation, the Council may decide to approve the plan of work by a three-fourths majority of the members present and voting, provided that such majority includes a majority of members participating in that session.
Each member of the Council will have one vote. The three-tier voting procedure for substantive decision-making, however, is designed to assure the United States and other nations prepared to mine the Area, of protection for special interests.

Substantive proposals must be accepted by either a two-thirds or three-fourths majority or by consensus, depending upon the nature of the issue. For example, many key decisions such as the awarding of mining production authorizations and controlling activities in the Area require a three-fourths majority. Hence, more than nine votes are needed to block a decision of the Council on these issues. According to the distribution of Council membership, the developed nations of the West will have at least six votes, and the East will have no less than three. The remaining seats will be filled mainly by developing nations.

In the worst case, with the developing countries taking a solid position on a decision adverse to Western interests, a blocking fourth would require voting help from the Eastern (Socialist) nations. The probability of this happening, however, is slim, because the developing countries have strong economic and political motivations to accommodate Western interests, thus avoiding the need of the West to rely on Eastern voting support in the Council.

The other decision-making element of the Authority, the Assembly, will also operate on the one-nation, one-vote system but, unlike the Council, it will be composed of all states that are party to the Convention. The Assembly will be the supreme organ of the Authority vis-a-vis the Council. In fact, it will elect the members of the Council and establish general policies to guide the Council and Enter-

59. Id. art. 162(1).
60. Id. art. 161(6).
61. Id. art. 161(7).
63. Draft Convention, supra note 1, art. 161(7)(b).
64. Id. art. 161(7)(c).
65. Id. art. 161(7)(d).
66. Id. art. 162(2)(j).
67. Id. art. 162(2)(k).
68. Id. art. 161(1)(a),(b).
69. Id. art. 161(1)(a),(b),(e).
70. Id. art. 161(1)(c),(d),(e).
71. An example of such a situation would be an attempt to issue emergency orders to suspend operations in the Area due to a threat to the marine environment, pursuant to id. art. 162(2)(v).
72. Id. art. 159(5).
73. Id. art. 159(1).
74. Id. art. 160(1).
75. Id. art. 160(2)(a).
prise.\textsuperscript{76} Despite the reference to the Assembly as the supreme organ of the Authority, the Council will, subject to the Assembly's general policy guidelines, retain sufficient independence in managing seabed mining.\textsuperscript{77}

The Assembly will vote to elect the members of the Governing Board and the Director-General of the Enterprise.\textsuperscript{78} The majoritarian status of developing states in the Assembly ensures that the governing elements of the Enterprise will consist mainly of nationals from their group. But the advanced position in mining technology and management expertise already held by the developed countries presented a problem of viability for the Enterprise.\textsuperscript{79} The solution was to convince those nations that wanted to exploit the seafloor to provide the Enterprise with the necessary tools.\textsuperscript{80}

B. The Enterprise

The Enterprise, is that arm of the Authority that is to exploit the seafloor in the name of all mankind.\textsuperscript{81} It is thus empowered to engage in mine operations and will itself perform functions similar to those of the private mining companies that are to be licensed by the Authority.\textsuperscript{82} This will include recovery and transportation of the nodules to its own processing operations and marketing of the minerals. Operationally, it will be a highly bureaucratic organization similar to the private mining consortia.

The Enterprise will enjoy a considerable degree of autonomy,\textsuperscript{83} but of course its actions must be in accordance with the directives of the Council, the general policies of the Assembly, and the dictates of the Convention.\textsuperscript{84} The Draft Convention provides that "in developing the resources of the Area . . . the Enterprise shall . . . operate on sound commercial principles."\textsuperscript{85} Hence, a question arises as to the extent to which this autonomy shields the Enterprise from interference by the political bodies. Commercial competition from the consortia will be

\textsuperscript{76} Id. art. 160(1).
\textsuperscript{77} See id. art. 162.
\textsuperscript{78} Id. art. 160(2)(c).
\textsuperscript{80} For a discussion of the elements of compromise offered by the United States at the Conference, see Hardy, supra note 27, at 328.
\textsuperscript{81} Draft convention, supra note 1, art. 153(1).
\textsuperscript{82} Id. annex IV, art. 1(1).
\textsuperscript{83} Id. art. 2(2).
\textsuperscript{84} Id. art. 2(1).
\textsuperscript{85} Id. art. 1(3) (emphasis added).
substantial. If the Enterprise is hindered by dictates and policies flowing from the Council and Assembly, then its commercial viability may be jeopardized.

1. The Governing Board

Structurally, the Enterprise will consist of a Governing Board, a Director-General and staff. The Governing Board will be composed of fifteen members who will be elected by the Assembly. The Board members shall act in their personal capacity performing their responsibilities independent of any national interest, and the members of the Authority shall refrain from all attempts to influence Board members. This provision stems from a desire to prevent political partisanship from paralyzing the functioning of the Board and thereby retarding the growth of the Enterprise. Although no specific qualifications have been detailed, the Board members shall be of the highest competence and qualified in the relevant fields. It is significant that the Board members are elected by one body, the Assembly, yet are subject to the directives of the other, the Council. This creates the potential problem of mixed loyalties.

The Board will direct the commercial operations of the Enter-
These will include: developing specific business plans for seabed mining and submitting them to the Council; authorizing the acquisition of technology; establishing terms for joint ventures to be conducted in cooperation with other state or corporate parties; recommending the portion of net income to be retained with the remaining portion going to the Assembly for the purpose of equitable sharing in the common heritage; authorizing the purchase of goods and services; drafting internal rules covering the functions and tenure of the staff; and borrowing funds subject to approval by the Council.

2. The Director-General

The Director-General shall be the chief executive officer and legal representative of the Enterprise, elected by the Assembly subsequent to nomination by the Governing Board. Pursuant to Board guidelines, the Director-General will be responsible for the organization, management and dismissal of the staff of the Enterprise.

It is important to note that unlike chief executive officers in most United States corporations, the Director-General is not a member of the Board, but will be allowed to participate without voting in pertinent Board meetings. Also, contrary to our domestic experience and that of other nations, the Director-General is not elected by the Board. These factors, especially the latter, may have a serious negative effect upon the working relationships within the Enterprise. Since the Director-General must report directly to the Governing Board, the provisions for Board nomination and limited Board participation are designed to “avoid potential confusion and division within the Enterprise.”

The Director-General shall act independently of advice or instructions from any government, and the Authority shall respect the international character of his office, and refrain from any attempts to influence him or the staff. The Director-General, as chief executive, will bear a heavy responsibility for the success or failure of this unique international undertaking. As chief executive of a commercial quasi-corporate entity, the Director-General faces the burden of being responsi-

95. Draft Convention, supra note 1, Annex IV, art. 6.
96. Id. art. 6(b).
97. Id. art. 6(d).
98. Id. art. 6(e).
99. Id. art. 6(f).
100. Id. art. 6(h).
101. Id. art. 6(g).
102. Id. art. 6(j).
103. Id. art. 7(1).
104. Id. art. 7(2).
105. Id. art. 7(1).
106. Id. art. 7(2).
ble, with the Board, to the Authority, a political organization.\textsuperscript{107} Despite the provisions that mandate political independence and operations based upon the "highest standards of efficiency and of technical competence,"\textsuperscript{108} the potential for partisan disruption exists. The Director-General must, therefore, be especially adept at political compromise. Ideally, such an individual should have been involved in the genesis of the Convention and should be familiar with many of the personalities that will become members of the Assembly and Council.

A related duty for the Director-General will be to coordinate and integrate a staff of assistants recruited from varied geographical areas.\textsuperscript{109} This will, naturally, involve a variety of ethnic, cultural and linguistic differences. Thus, the Director-General must be a highly competent business administrator in addition to being an effective diplomat.\textsuperscript{110}

3. Funding

Initially, the primary sources of funding will be amounts received from the Authority and amounts borrowed in the markets of state parties.\textsuperscript{111} Theoretically, the Enterprise will eventually achieve profitability and will be able to sustain itself with income it generates. Sufficient funds will be made available in the form of loans for administrative costs and for the exploration and exploitation of one mine site, including transportation, processing and marketing of the final product.\textsuperscript{112}

Start-up funding will be in the form of loans. One-half of these loans will be in the form of long-term interest-free funds provided by all state parties proportioned according to their scale of assessments for the United Nations' budget at that time.\textsuperscript{113} The other half will mainly be borrowed from various lending institutions, with the state parties guaranteeing the loans on the same proportional scale.\textsuperscript{114} Furthermore, the state parties are to make serious efforts to facilitate and expedite these loans from the capital markets and financial institutions.\textsuperscript{115}

The interest-free loans will be made available immediately, within thirty to sixty days, after implementation of the Treaty; the debt guar-
The Enterprise must use its income to pay the Authority for the right to explore and mine the Area according to the same financial terms as will the private consortia. Essentially this will consist of a one million dollar annual payment from the date of entry into contract, and another fee, either the one million dollar fixed fee or a production charge, whichever is greater, once commercial production begins. The Assembly shall, for an initial period of up to ten years, exempt the Enterprise from this tax burden so it can become self-supporting. This provision would give the Enterprise the potential to become very competitive in seabed mining since it would have a commercial advantage over other mining groups. In addition, these groups will be subject to national taxes that will not affect the Enterprise.

The operations of the Enterprise will depend upon the application to and approval of the Council for specific mining projects, just as will the private mining companies. The application must contain evidence supporting its financial and technological capability. When a project is approved, the Enterprise can proceed according to its plan and will hold title to all minerals produced. The main distinction is that the Enterprise can apply for reserved sites that others cannot.

4. Parallel Exploitation

The Draft Convention provides for a dual access, parallel method of seabed resource mining. In exchange for the right to mine the nodules of the international seabed, the corporate miner will, in return, reserve an area for exploitation by the Enterprise. This system of dual resource access will operate in the manner described below.

Companies applying for the right to exploit a particular location, must include the coordinates of a total area sufficient to support two mining operations of approximately equal commercial mineral value. The Authority will then determine the half to be reserved for use by

116. Id. art. 13(3)(d).
117. Id. art. 10(1).
118. Draft Convention, supra note 1, Annex III, art. 13(3).
119. Draft Convention, supra note 1, Annex IV, art. 10(3).
120. Breaux, supra note 48, at 283-85.
121. Draft Convention, supra note 1, Annex IV, art. 12(1),(2).
122. Draft Convention, supra note 1, Annex III, art. 12(2).
123. Draft Convention, supra note 1, Annex IV, art. 12(4).
125. Id. art. 8.
126. Id.
127. Id.
the Enterprise as well as the area to be operated by the mining applicant. The reserved site will be set aside for possible future, if not immediate, exploitation by the Enterprise, either alone or in a joint venture with developing states. The mining applicant will be able to commence operations on his track as soon as the plan of work for the non-reserved area is approved and the contract signed.

5. Technology

Technology is a critical factor for the development of the deep seabed industry since the challenges presented by working three miles below the ocean surface are enormous. It was, therefore, deemed necessary that the technology needed for the Enterprise to become an effective and competitive seabed miner be provided to it by those applicants granted a license to operate in the Area.

Every successful applicant for a mining contract will submit to the Authority, upon request, a description of the equipment and methods to be used for exploitation of the deep seabed. Furthermore, the applicant will identify the source from which such technology can be obtained by the Enterprise. In addition, any substantial equipment change or technical innovation shall be reported to the Authority. Consequently, it appears that the Enterprise will always have access to the most current technology available.

Every contract granted will include a supplementary agreement providing for the direct transfer of technology to the Enterprise when and if the Authority requests. These agreements will, however, expire ten years after the Enterprise begins commercial production. If, for example, the Enterprise is unable to obtain, on the open market, the technology that a particular contractor will be using, then the contractor will transfer the technology directly to the Enterprise at fair and reasonable terms. The operator will also obtain written assurance from the third-party owner of any other technology to be used, that such technology will be made available to the Enterprise on fair terms. The Enterprise may require that the operator acquire, whenever possible, and at reasonable cost, a legally binding right to transfer

128. Id.
129. Id. art. 9.
130. Id. art. 8.
131. Id. art. 5(3)(a).
132. Draft Convention, supra note 1, Annex IV, art. 5(1).
133. Id.
134. Draft Convention, supra note 1, Annex III, art. 5(2).
135. Draft Convention, supra note 1, Annex IV, art. 5(3)(a).
136. Draft Convention, supra note 1, Annex III, art. 5(7).
137. Id. art. 5(3)(a).
138. Id. art. 5(3)(b).
to the Enterprise, technology that the operator will use which would otherwise be neither transferable nor available on the open market.\textsuperscript{139} The operator will also provide assistance if the Enterprise chooses to negotiate directly with the owner for the acquisition of relevant technology.\textsuperscript{140}

All of these provisions related to technology were considered necessary to provide effective guarantees that the Enterprise will have the capability to use the funding provided to maintain and operate a viable system. The technology includes specialized equipment, technical know-how, manuals, designs, operating instructions, training and technical advice, and all other types of assistance.\textsuperscript{141} Essentially, the Draft Convention only requires the operator to transfer technology when it is not available on the open market.\textsuperscript{142} At all times, fair and reasonable remuneration will be made for the technology provided.\textsuperscript{143} If the technology is available on the market, an adequately financed Enterprise will purchase the necessary technology outright or develop it independently.\textsuperscript{144} The transfer provisions are not all encompassing, but rather are limited to mining technology and do not include processing information. Moreover, no proprietary data need be disclosed to the Enterprise.\textsuperscript{145} These provisions are, in essence, intended to assure that the operators do not artificially restrict access to the technology.

6. Joint Ventures

Joint ventures or production sharing between the mining contractor and the Authority are provided for through the Enterprise, and will be protected against termination, suspension or revision.\textsuperscript{146} The Authority shall provide incentives, financial or otherwise, for joint arrangements, in order to stimulate the transfer of technology as well as to train the personnel of the Authority and of the developing nations.\textsuperscript{147} The same rights and obligations present for individual opera-

\begin{enumerate}
\item[139.] \textit{Id.} art. 5(3)(c).
\item[140.] \textit{Id.} art. 5(3)(d).
\item[141.] \textit{Id.} art. 5(8).
\item[142.] \textit{Id.} art. 5(3)(a).
\item[143.] \textit{Id.}
\item[144.] Draft Convention, \textit{supra} note 1, Annex IV, art. 12(3).
\item[145.] Draft Convention, \textit{supra} note 1, Annex III, art. 14.
\item[146.] \textit{Id.} art. 11. A joint venture is a business arrangement similar to a partnership. It has been broadly described as a combination of two or more parties that contribute funds, facilities or services to the business enterprise for their mutual benefit. W. G. FRIEDMANN \& G. KALMANOFF, \textit{JOINT INTERNATIONAL BUSINESS VENTURES} 6 (1961). In the present context, the Enterprise and an independent contractor or a consortium that is willing to provide the necessary technology or capital investment would join together to engage in a mining operation. Draft Convention, \textit{supra} note 1, Annex III, arts. 11.
\item[147.] Draft Convention, \textit{supra} note 1, Annex III, arts. 11(2), 13(i)(d).
\end{enumerate}
tors, vis-a-vis, the Authority, will attach to joint operators proportionally to the extent of the joint venture share. Of particular interest are joint ventures between the operator and the Enterprise itself.

Potential drawbacks could stem from the joint venture arrangement itself if it is not carefully drafted to reflect the expectations and basic goals of each partner. The provisions should include the scope, structure and duration of the project; the termination clauses; the proportional shares of investment and revenues; the nature of the decision-making and management processes; the appropriate law to be applied; and finally the dispute resolution forum, should a conflict arise between the parties.

There are several potential benefits to the Enterprise should it enter into a joint venture arrangement with a mining contractor. They include: (1) easier access to technology and critical management skills; (2) possible access to nodule processing technology; (3) reduced investment risks through sharing of costs; (4) a more gradual move into independent operation; and (5) more effective and extensive training for personnel from developing countries. The possible benefits, to the Enterprise in technology are especially important due to its probable weaknesses in this area.

On the other hand, the corporate mining operator could derive substantial benefits from a joint venture with the Enterprise including: (1) sharing of the business risks involved in large, long-term investments; (2) reduced complications from the technology transfer provisions; and (3) access to a second mine site, the reserved area, held by the Authority.

The use of joint ventures between the Enterprise and mining contractors might very well enhance cooperation between the Authority and the joint venturing mining contractors. If the Enterprise becomes engaged in a joint venture, the Authority will naturally be interested in its success. That interest will undoubtedly redound to the benefit of the contractor. This could take the form of facilitating its success by removing political difficulties in the development of the joint venture.

The joint arrangements are an acceptable and excellent vehicle through which to provide the incentive for risk capital commitments and thereby carry out the provision that calls upon the Authority to

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148. *Id.* art. 11(3).

149. *Id.* art. 9(2). Joint ventures may also be conducted by the Enterprise with State Parties that are developing states, and their nationals. *Id.*

150. For a detailed examination of how these points should be handled by both the Enterprise and the mining groups, see, *Information Note on Joint Ventures, Part B - Some Operational Aspects*, U.N. Doc. GE. 75-64399, C.1/Working Paper No.5/Add.1 (Apr. 10, 1975). Choice of forum for dispute resolution may be limited to the Sea-Bed Disputes Chamber by article 187(c) or binding commercial arbitration under article 188(2)(a).
provide certain incentives. Finally, joint ventures would reduce the fear that despite the technology transfer provisions, the Enterprise may still be unable to acquire effectively the necessary technology and management skills. If meaningful incentives are provided to joint venturing contractors, the outlook for the future development of the Enterprise would be improved.

CONCLUSION

EMERGING PROBLEMS AND REMAINING CONSIDERATIONS

If and when the Enterprise is in full operation, its success will not be solely a function of the competence of Enterprise personnel or the functioning of the Authority, but will also depend on a variety of complex and interrelated factors.

A. Product Marketing

Annex IV of the Convention clearly envisages that the Enterprise will generate its own profits and will be financially self-sufficient.\(^\text{151}\) The successful marketing of the minerals recovered from the deep seabed will be an important factor in achieving financial self-sufficiency for the Enterprise. Although not provided for in the Draft Convention, access to the international metal market will be essential for the profitable distribution of minerals recovered by the Enterprise.\(^\text{152}\)

The international metal market has many characteristics of monopoly and this may present a marketing problem for the Enterprise. These monopolistic features include raw material transfers such as those within vertically integrated industrial corporations or those such as long-term supply contracts between producer nations and industrial consumers. Despite the monopoly characteristics of this market, the London Metal Exchange may prove to be one accessible conduit for the Enterprise's product.

Based upon current projections, the consumption of nickel, manganese, cobalt and copper by the industrialized nations is not likely to increase greatly over the next ten to twenty years. Even the growth of

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151. The profits are partially intended for distribution to developing nations along with revenues derived from mining profits of the mining consortia. See Darman, supra note 11, at 383. See also Nigrelli, Ocean Mineral Revenue Sharing, 5 OCEAN DEV. & INT'L L. 153 (1978). Nigrelli developed projections of the revenues from seabed mining that will be available to the Authority. These are much less than once thought, and considering that the land-based producers will initially be compensated from these revenues, the remaining funds for distribution to developing nations will not be great. Id. at 164-76.

152. See Lee, supra note 87, at 70.
demand for these minerals by developing countries is unlikely to result in notable increases in world consumption. The marketing strategy of the Enterprise, therefore, will be of great significance in achieving viability as a successful mineral producer.

Presuming the Enterprise successfully mines and processes the nodules, its initial output may be small relative to the total volume of world output from all sources. Thus, at first, there would only be a need to sell to relatively small quantity purchasers. If this is the case, the Enterprise could gradually build a constituent market. Alternatively, if the Enterprise is able to produce large quantities of minerals, then access to purchasers may present difficulties due to the oversupply of its product and an undersupply of purchasers.

B. Financing

The developed nations are providing substantial funding for the Enterprise, but have only moderate desire for its successful competition with the mining consortia. The developing nations have a substantial interest in the successful operation of the Enterprise, but are providing only a moderate portion of the funding. Nevertheless, the start-up financing provisions for personnel and the purchase of equipment to operate one complete mining operation generally appear sound. But the total amount to be provided the Enterprise for its initial operational mine site should be fixed. A ceiling figure on this amount would enhance certainty on the extent of the funding parties' obligations. Such a ceiling would tend to quiet fears about runaway expenditures by the Enterprise as it sets out to acquire the expensive technology being developed for deep seabed mining. Indeed the projected initial cost, one billion dollars, is substantial and probably will increase.

C. Technology

The provisions for technology transfer are designed to ensure that the Enterprise is adequately prepared to perform mining operations. To this end, a good faith effort from the mining parties that will be providing technology and training to the Enterprise is essential.

The need for training is especially important because it involves extended lead times. This applies to training in both technology utilization and business management. These factors are very important to the profitability and overall success of the Enterprise. It will not be easy to evaluate the extent of good faith by the technology providers. They may comply with the relevant provisions, but their willingness to

153. See Osgood, supra note 17, at 24.
154. The joint venture provision offers special opportunities to the Enterprise in this respect. See supra notes 146-50 and accompanying text.
do so expeditiously may become the subject of controversy.

Moreover, the transfer provisions related to proprietary information should be clarified. The mining interests are concerned with protecting the security of technology that evolves through their investments in research and development. They will be naturally reluctant to expose new and sensitive information. The Draft Convention does provide an exception for proprietary information under the technology transfer obligations. But "proprietary" has not been defined in the Draft Convention. A definition of this term would be useful so that all the miners, both technology transferors and transferees, could better understand their rights and obligations.

Finally, the developed nations desire quick processing of their license applications for seabed mining so that the mining operations can move forward with dispatch. Good faith timely handling of these applications by the Council may be forthcoming if there is evidence of similar good faith efforts by the miners to provide technology, prompt training and the other requirements of the Draft Convention to the Enterprise.

D. Compromise

The numerous compromises involved in the provisions establishing the International Sea-bed Authority were judged necessary to achieve the common desire of all nations to use, and profit from, seabed resources. The balancing of many competing interests and conflicting claims resulted in this unique international commercial institution that is the Enterprise.

It must be emphasized that the compromises achieved were only possible to the extent that they reflected the aggregate common interest of all nations. This interest is, of course, to expand the use and productivity of the oceans and to ensure access to the oceans for all peaceful purposes.

The Enterprise rests on the process of compromise, and has the potential to work and be successful. This success depends to a significant degree on a series of relationships including: (1) the cooperativeness of the developed countries that in turn depends greatly upon whether or not serious problems arise in the relationship between the miners and the Authority; (2) the working relationship between the Enterprise and the Authority; and (3) the capacity, personal ability and effectiveness of the Director-General and his authority in working with the Governing Board.

As we have seen, clarifications may be necessary with respect to critical relationships established in the Draft Convention. Objective qualifications should be developed for selection of the Director-General. Perhaps the Director-General should be elected by the Governing
Board and given voting rights on the Board. In addition, the Enterprise may need greater autonomy in its relationship to the Authority. The desirability and construction of such clarifications should receive further study by the delegates to the Preparatory Commission for the United Nations Convention on the Law of the Sea. The Preparatory Commission will then draft provisions to make possible the efficient functioning of the Authority when the Draft Convention comes into force.

It should be remembered that this evolving mining industry is new in terms of the actors involved, the type of activity undertaken and where it is taking place. As such, there will be unforeseen difficulties for the Enterprise which can be minimized if it has effective access to the funding and technology it needs.

An undertaking as ambitious as the Enterprise will naturally need some good luck to be successful. It certainly has the potential to be successful, but optimism for the project must be tempered by a realization of the magnitude of the undertaking.

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