The U.S. Deep Seabed Mining Regulations: The Legal Basis for an Alternative Regime

Michael R. Molitor

Follow this and additional works at: https://digital.sandiego.edu/sdlr

Part of the Law of the Sea Commons

Recommended Citation
Available at: https://digital.sandiego.edu/sdlr/vol19/iss3/9
The U.S. Deep Seabed Mining Regulations: The Legal Basis for an Alternative Regime

MICHAEL R. MOLITOR*

This article focuses on the jurisdictional limitations established by United States deep seabed mining legislation. The author contends that by incorporating the ambiguous jurisdictional language of earlier international agreements into domestic legislation, the drafters have missed the opportunity to expand United States unrestricted access to deep seabed hard minerals. He proposes that the promotion of continued development of deep seabed mining technology can be achieved through the legislative enactment of an Exclusive Economic Zone. Its creation would place portions of the deep seabed under national jurisdiction that would have otherwise been excluded.

INTRODUCTION

With the commercial interest in deep seabed hard minerals by large United States corporations ever growing, Congress passed, and the President signed into public law, The Deep Seabed Hard Mineral Resources Act (Act) in June 1980.1 The Act, as well as the Regulations which followed, fell well short of achieving their stated objectives by establishing jurisdictional limitations on the deep ocean floor that failed to take into account the needs of the United States deep seabed mining industry. There is now, how-


April 1982 Vol. 19, No. 3

599
ever, emerging as a part of customary international law, a relatively new juridical concept that, if brought into existence through legislation, would help to rectify the Act's major shortcoming. This concept would allow deep seabed mining under national authority and avoid the near complete collapse of commercial interest in deep seabed mining by United States corporations.

THE REGULATIONS' HISTORY

If the intent of Congress in introducing the Deep Seabed Hard Mineral Resources Act was “to promote the orderly development of hard mineral resources in the deep seabed,” as the Act's preamble implies, one would be disappointed to learn that the United States deep seabed mining industry (industry) has nearly collapsed since the Bill became public law in June 1980. From the mid-1970's, when commercial interest in the recovery of manganese nodules came to a climax, the advancement of deep seabed mining technology has been closely linked to the availability of internal and external project financing and the progress of the Third United Nations Conference on the Law of the Sea (UNCLOS III). Attempts to circumvent these realities through the introduction of domestic legislation has had no pronounced effect upon the nebulous financial and legal climate stifling the industry's attempts to gain access to the deep seabed. There has now developed a real need to amend the Act as emerging rules of international law will soon allow for the establishment of alternative regimes for the management of ocean space.

When United States corporations began allocating millions of dollars for the development of various deep seabed hard mineral recovery systems, the lucrative appeal of “trillions of tons of...
manganese, copper, cobalt and nickel" lying on the deep ocean floor justified the requisite expenditures of internal project funds. As these funds began to dwindle, due largely to gross under-estimations of the cost of developing these systems, it was clear that the external financing community would soon become involved. The shrewd response given to the infant industry was that, until the lending institutions were completely convinced that the industry had "assured access" to a portion of the deep seabed large enough to maintain a commercially operative mining venture for 25 years, not one red cent would be approved. Whereas previously, financial considerations were in the limelight, now the legal status of the deep seabed became the focus of the industry's attention. This new focus became centered upon UNCLOS III as assured access at this point was directly linked to the progress of this law-making Conference.

At some point in the progress of the industry's attempt to clarify the legal status of the deep seabed, the industry decided that possibly those entrusted with making the financial decisions concerning the fate of the industry's continued efforts might be persuaded to overlook the fact that deep seabed mining was an international activity to be governed solely by international rules. The industry believed that if the United States government were to give its legislative approval to deep seabed mining, then the financial decision-makers might allow the necessary continued funding. Nothing could have been further from reality.


9. This term became common usage during the process of the legislation's hearings and generally refers to internationally recognized legal control over a portion of the deep seabed.

10. This period of time was calculated as the duration necessary to allow a mining venture to return an attractive profit. See Takeuchi, Exploitation of Manganese Nodules—Future Problems (a paper presented before the Third International Ocean Symposium (The Deep Seabed and Its Mineral Resources) Tokyo, 1978).

11. As a majority of States agreed that deep ocean mining outside the limits of national jurisdiction should be authorized only by an international agency to be established through negotiations at UNCLOS III, it is clear that, at least at this point, assured access was a subject of great significance at the Conference. U.N. Declaration of Principles, G.A. Res. 2748 (xxv), 25 U.N. GAOR, Supp. (No. 28) 24, U.N. Doc. A/8028 (1970), reprinted in 10 Int'l Legal Materials 220 (1971) [hereinafter cited as Declaration of Principles]. See also note 47 infra.

12. Id.
The mining lobby\textsuperscript{13} pushed for and eventually received the Act which to date has only allowed the industry to barely remain alive.\textsuperscript{14}

Initially, the Act's legislative precursor, H.R. 2759, provided for financial guarantees\textsuperscript{15} which would have protected the industry from losses incurred within the "Area"\textsuperscript{16} due to the entry into force of an incompatible, multilateral law of the sea convention.\textsuperscript{17} This international agreement would grant powers to a supranational body (The International Seabed Authority) which in turn would control all deep seabed mining activities within the Area. The guarantees provided for federal monetary compensation to the industry with which the financial community was partially satisfied.\textsuperscript{18} The original form\textsuperscript{19} of the Bill, introduced in the Senate by Lee Metcalf, was so significantly altered by the time it arrived at the White House in June 1980 that both the industry and the lending community soon realized that their extensive lobbying efforts had been undertaken mostly in vain. Their greatest objection was the complete deletion of all financial guarantees,\textsuperscript{20} or the idea that the United States Government was not in the business of underwriting insurance policies to protect the interests of American citizens in areas where it had no jurisdiction.\textsuperscript{21}

The industry was now faced with some difficult alternatives. Either they would wait until UNCLOS III produced an agreement to

\textsuperscript{13} For practical purposes, this refers only to the American Mining Congress.
\textsuperscript{14} Personal Communication, Conrad Welling, Senior Vice-President, Ocean Minerals Company, October 7, 1981.
\textsuperscript{17} Id.
\textsuperscript{18} See supra note 5, Deep Seabed Mining, (statement of C. Thomas Houseman) at 177.
\textsuperscript{19} S. 2801, 92d Congress, 2d Sess. (1972).
\textsuperscript{20} "In our view, the Federal Government should not be required to guarantee a segment of the private sector against financial losses that may occur from actions taken by the Federal Government to advance the national interest." See Oversight Hearing, (Statement of Amb. Richardson), supra note 15, at 4.
\textsuperscript{21} The Act is very clear on this matter: "DISCLAIMER OF OBLIGATION TO PAY COMPENSATION . . . this Act (does) not create or express any legal or moral obligation on the part of the United States Government to compensate any person for any impairment of the value of that person's investment in any operation for exploration or commercial recovery . . . which might occur in connection with the entering into force of an international agreement with respect to the United States." 30 U.S.C. § 1444 (1980).
which the United States would or would not become a party, cease all research and development efforts, or seek an alternative regime under which mining would establish and maintain assured access and tenure. Those who followed closely the protracted efforts of the industry would not have to wait long for the industry's decision.

President Carter signed the Bill into law on June 28, 1980. From that point, it was the duty of the Department of Commerce to produce regulations that would encourage the continued development of deep seabed mining technology. The Act called for the Administrator of the National Oceanic and Atmospheric Administration (NOAA) of the Department of Commerce to promulgate regulations for all exploratory and commercial deep seabed mining activities to be undertaken by United States nationals. The final Regulations\(^{22}\) were made public by the Office of Ocean Minerals and Energy (OME), an agency of NOAA, in September 1981. They are lengthy, complex and quite burdensome; certainly not in the spirit of the current Administration's enunciated policy of federal deregulation with the intent of promoting business.

Although there are many interesting legal aspects to the Regulations\(^{23}\), it is the delimitation of the deep seabed and its relationship to the continental shelf that is of chief concern to this author's comments. It should be noted that United States nationals are presently prohibited by the Act to undertake any commercial recovery of deep seabed hard minerals prior to January 1, 1988\(^{24}\). This provision represents the legal basis for the Act's interim status as "an interim legal regime under which technology can be developed and the exploration and recovery of the hard mineral resources of the deep seabed can take place until such time as a Law of the Sea Treaty enters into force with respect to the United States."\(^{25}\) This future date, it was felt, would give the law of the sea negotiations ample time to produce an agreement for signature and ratification\(^{26}\). The industry, realizing that the

---

23. Since the Regulations, not the Act, are the source of the limitations placed upon the industry it would be more appropriate to examine the language of the former as it applies more directly to the issue in question.
26. "The Administration would strongly prefer to see . . . July 1, 1982 as the earliest date on which commercial recovery can commence . . . . The Administra-
commercial recovery of hard minerals from the deep seabed was unrealistic in this decade, had no difficulty accepting this provision.

At OME, those who were entrusted with the duty of drafting the Deep Seabed Mining Regulations (Regulations) were forced to locate precisely which rules of international law governed the delimitation of the continental shelf and deep seabed with respect to the United States. The United States ratified the 1958 Geneva Convention on the Continental Shelf27 and the Treaty entered into force with respect to the United States on June 10, 1964. The drafters of the Regulations28 were obligated to incorporate the relevant articles of this agreement within the Regulations' delimitation of the area over which it would have jurisdiction. The language of article I of the 1958 Convention is duplicated verbatim within the Regulations:

"Continental Shelf" means—(1) The seabed and subsoil of the submarine areas adjacent to the coast, but outside the area of the territorial sea, to a depth of 200 meters or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of such submarine area;29 and (2) The seabed and subsoil of similar submarine areas adjacent to the coast of islands.30

This definition is undeniably ambiguous as it might be argued that the exploitability criterion31 would allow the technically-advanced States to claim control over seabed resources well beyond the geological limits of the continental shelf. The outer delimitation of the continental shelf has been one of the most controversial and difficult issues to resolve at UNCLOS III. Although general agreement has been reached on article 76(4),32 incorporating the so called "Irish formula,"33 the method outlined is so technically oriented and confusing that its success in future application must be seriously questioned. This, however, is of little importance to the issue of the Regulations' jurisdiction as neither

28. The definitions for the continental shelf and the deep seabed were originally included within the legislation. Act, Sec. 3(2) (3), supra note 1, at 5.
30. Id.
31. See text accompanying note 29 supra. This phrase is commonly referred to as the "exploitability criterion."
the Draft Convention nor article 76(4) has yet to find a place in international law, customary or otherwise.

The ambiguity of the exploitability criterion becomes of great significance to the uncertain nature of the Regulations' jurisdictional limits when the definition of the deep seabed, the area of principal concern, is examined. As outlined within the section entitled "Definitions":

"Deep seabed" means the seabed, and the subsoil thereof to a depth of ten meters, lying seaward of and outside—

1 The Continental Shelf of any nation; and

2 Any area of national resource jurisdiction of any foreign nation, if such area extends beyond the Continental Shelf of such nation and such jurisdiction is recognized by the United States. . . .

If the deep seabed begins where the seaward limit of the continental shelf terminates and as the latter definition for practical purposes is undefined, where does the boundary between these two regions exist? Clearly, as technology will soon permit the commercial exploitation of the continental slope and rise for oil and gas and, possibly, hard minerals, there is an increasingly significant need to achieve a workable definition for the outermost edge of the continental margin. It is the author's opinion, as stated previously, that article 76(4) of the Draft Convention does not achieve this practical objective. The Regulations only add to

34. 46 Fed. Reg. 45,897 (1981). The United Kingdom has avoided the problems of incorporating the misleading definition of the continental shelf within their deep seabed mining legislation: "deep seabed means that part of the bed of the high seas in respect of which sovereign rights in relation to the natural resources of the seabed are neither exercisable by the United Kingdom nor recognized by Her Majesty's Government in the United Kingdom as being exercisable by another Sovereign Power . . . ." Deep Sea Mining Act (Temporary Provisions) 1(6) (1981) reprinted in 20 In't L. Legal Materials 1218 (1981). The Federal Republic of Germany has been equally innovative: "deep seabed means . . . the seabed and its immediate subsoil lying seaward of and outside of areas for which the Federal Republic of Germany claims sovereign rights or has recognized the sovereign rights of other states . . . ." Act on Interim Regulation of Deep Seabed Mining, Sec. 2(4) (1980) reprinted in 19 In't L. Legal Materials 1331 (1980).


36. The Conferees at UNCLOS III have succeeded in replacing the nebulous (continental shelf) delimitation criteria developed under both the 1958 Convention on the Continental Shelf and the 1969 North Sea Cases with a different set of vague and impractical criteria . . . . what was needed seven years ago and what is needed today is a single precise method of delimitation rooted in data subject to practical implementation.
the confusion by employing the very misleading language of the 1958 agreement.

**THE EXCLUSIVE ECONOMIC ZONE AS AN ALTERNATIVE**

There is now, however, emerging as a part of customary international law a relatively new concept which would assist in circumventing the problems associated with the boundary between the continental shelf and the deep seabed. The Exclusive Economic Zone (EEZ)\(^{37}\) is a product of the negotiations at UNCLOS III and has nearly found its place within the rules of customary international law.\(^{38}\) Although the Draft Convention, of which the EEZ is a part, as of yet does not represent universally accepted international law, many States have incorporated the language of the Convention within their unilateral, bilateral and, to some extent, regional legislative efforts.\(^{39}\) The process by which this exercise in State practice is transformed into customary international law\(^{40}\) was outlined by the International Court of Justice in the *North Sea Continental Shelf Cases*\(^{41}\) and includes four distinct but interdependent requirements.\(^{42}\) It is not the author's intent to discuss this process but to point out that many legal writers agree that the EEZ will soon achieve, if it has not already, customary status regardless of the outcome of UNCLOS III.\(^{43}\) That is to say, the four well recognized requirements necessary for the formation of customary norms have been achieved (although without absolute certainty).

The Exclusive Economic Zone, then, extends seaward to a distance not to exceed 200 nautical miles from the baselines from which the territorial sea is measured.\(^{44}\) Within this region a

---

\(^{37}\) *Draft Convention*, *supra* note 16, at 21-30 (articles 55-75).

\(^{38}\) "With or without a(n) (UNCLOS III) treaty it appears as if a 200 mile EEZ will remain with us as part of customary international law," *Morin, supra* note 36, at 533. "There can be no serious question remaining that insofar as resources are concerned, coastal-state exclusive authority extends beyond the territorial sea to a limit of 200 nautical miles," *Burke, National Legislation on Ocean Authority Zones and the Contemporary Law of the Sea*, 9 Ocean Dev. & Int'l L. 311 (1981).


\(^{41}\) *I.C.J. Reports* 3 (1969).


\(^{43}\) *Morin, supra* note 36.

\(^{44}\) For practical purposes the baselines represent the low-water line along the coast except where special geographic obstacles exist. For the international rules
coastal State "has sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the sea-bed and subsoil and the superjacent waters. . . ." Thus, the effect of an EEZ would be to include portions of the deep seabed outside the continental shelf but within 200 nautical miles which otherwise would be within the juridical definition of the high seas. A coastal State which elects to declare an EEZ would be free to mine the deep seabed for hard minerals to a distance of 200 nautical miles seaward of its coastline. It would not be subject to either the revenue-sharing provisions or the commercial recovery moratorium incorporated in the Draft Convention and the 1970 United Nations Declaration of Principles Resolution, respectively.

The Regulations prohibit the commercial recovery of deep seabed hard minerals from any portion of the deep seabed lying outside the continental shelf or where foreign marine resource zones recognized by the United States exist. The reasoning behind utilizing this global definition of the deep seabed is that the legal status of the deep seabed beyond the limits of national jurisdiction accounts for the only major unresolved issue at UNCLOS III. Additionally, as the United States has no sovereign claims to any portion of the deep seabed, the only solution was to broaden the definition to exclude the possibility of allowing United States citizens to begin commercial mining activities.

THE NEED FOR NEW LEGISLATION

As mentioned earlier, the Act has failed to promote the continued development of deep seabed mining technology as the uncertain legal nature of the deep seabed has forced the industry to halt continued funding. No mining company will begin to con-


45. Draft Convention, supra note 16, at 21, (art. 56 (1)(a)).


47. "All activities regarding the exploration and exploitation of the resources of the area and other related activities shall be governed by the international regime to be established." Declaration of Principles, supra note 11, para. 4.

48. Id.
sider allocating the hundreds of millions of dollars necessary to develop a system to recover minerals from any submarine area unless its ability to secure guaranteed access to those areas is completely certain. In this regard, the very existence of the Act should be questioned as its objective of securing access to seabed minerals for the promotion of the industry will only be achieved through the successful negotiation of Part XI of the Draft Convention at UNCLOS III. Given that a majority of States have agreed that the deep seabed lying outside the limits of national jurisdiction should be the “common heritage of mankind,” no company could expect to convince its stockholders that its interests could be protected by a single nation's legislative authority. The right to mine the deep seabed must be conferred upon those nations that have the technical and financial means to do so by the entire community of nations. A reciprocating State regime composed of the handful of deep seabed mining nations has no better chance of circumventing the global character of the deep seabed than do the municipal efforts of an individual State.

What is of critical importance to the industry, then, is the location of an area where the authority to test and prove their designs is undisputable. Testing and proving technology refers to the successful demonstration of commercial capabilities and not simply exploratory work which may be undertaken over any portion of the deep seabed under the high seas freedom of marine scientific research. Ore-grade nodules of commercial abundance lie only on the deep seabed, and as the Regulations prohibit the comm-

49. House Comm. on International Relations, supra note 8, at 13.
51. Within the U.N. General Assembly, voting on the relevant resolution (see Declaration of Principles, supra note 11) was completely unobjectionable as it passed 108 to 0 with 14 abstentions (The United States voted in favor of the Resolution).
53. Those nations include the following: United Kingdom, France, Belgium, Netherlands, Federal Republic of Germany, Canada, Japan, and Italy.
54. Although not specifically mentioned within article 2 of the Convention on the High Seas, supra note 46, the freedom of marine scientific research is well recognized and is included within the inter alia freedoms referred to in the article. Also, art. 87(f) of the Draft Convention, supra note 16, at 35, includes scientific research in its enumeration of high seas freedoms.
55. Nodule samples taken from every ocean seem to indicate that the deposits of greatest commercial interest, those with the highest concentrations of nickel and copper, lie at depths as great as 6000 meters and southeast of the Hawaiian
mercial recovery of hard minerals from the entire deep ocean floor, it would seem as though the Act has created a completely self-defeating situation. Clearly, under current principles of international law, the United States has the means of including vast areas of the deep seabed within the jurisdiction of the Regulations. For instance, the 1976 Fisheries Conservation and Management Act granted exclusive control to the United States over all living resources found within 200 nautical miles. Also, the 1945 Truman Proclamation extended the jurisdiction of the United States to all adjacent submarine areas of the continental shelf.

To date, the United States, through the enactment of numerous public laws, has jurisdiction or control over all living and non-living resources within 200 nautical miles except the hard mineral resources lying on and beneath the deep seabed outside the continental shelf. Congress declared there was a need to promote an industry to recover strategic hard minerals from the deep seabed through the introduction and passage of the Act. The creation of an Exclusive Economic Zone would have granted United States nationals the right to mine vast areas of the deep seabed with potential economic value. When the magnitude of new metalliferous deposits found off the coasts of the states of Oregon and Washington is considered, one is quick to realize the need for declaring exclusive control over the mineral resources of the deep seabed within an EEZ. Studies have shown that the nodule deposits of greatest economic value lie directly southeast of the Hawaiian Islands, partially within a distance of 200 nautical miles.

Islands between two seafloor fracture zones, the Clarion and Clipperton. Marjomram, supra note 4, at 46–47.

58. For a general overview of all the United States Laws pertaining to the uses of ocean space within the limits of United States jurisdiction, see U.S. DEPARTMENT OF COMMERCE, U.S. OCEAN POLICY IN THE 1970S: STATUS AND ISSUES, (1978) [GPO No. 003-017-00427-9].
59. A possible exception is ocean thermal energy because the right to extract this relatively new resource has yet to achieve international recognition. But see Draft Convention, supra note 16, at 21 (art. 56 (1) (a)).
60. Those minerals upon which the United States is critically dependent for the maintenance of defense and which are imported as a high percentage of domestic use have been labeled as strategic by the White House.
62. Supra note 4. See also FERROMANGANESE DEPOSITS ON THE OCEAN FLOOR, (Horn ed. 1974) NAT'L SCI. FOUNDATION.
In terms of reciprocity, it would seem obvious that, as more nations begin to claim an EEZ, a United States claim to all resources within 200 nautical miles becomes an even greater necessity. Additionally, a United States claim to an EEZ would solidify this new regime's place within the rules of customary international law.

CONCLUSION

As the dependence on foreign sources for the principal mineral constituents of manganese nodules by the United States continues to grow, there is an obvious need to foster the development of deep seabed mining technology. The Deep Seabed Hard Mineral Resources Act failed in this objective by not granting United States nationals access to any portion of the deep ocean floor. Under current and emerging principles of international law, the United States has an unopposable right to all resources within 200 nautical miles from the baselines from which the territorial sea is measured. As the United States has repeatedly claimed that deep seabed mining is a freedom guaranteed by the 1958 Geneva Convention on the High Seas, it is confusing that the Regulations refused to allow the commercial recovery of minerals from the deep seabed prior to January 1, 1988.

As deep seabed mining was, and is, part of a package treaty still in the process of negotiation at UNCLOS III, it is understandable why United States legislators would have been reluctant to grant United States nationals the right to mine the entire ocean floor outside the limits of national jurisdiction. What is not understandable is that the drafters of the Regulations not only denied United States nationals access to deep seabed minerals within an area of unopposable jurisdiction, but further, they chose to incorporate the completely ambiguous language of the 1958 Geneva

63. Although nodules are composed of many different mineral constituents, those of greatest abundance and, consequently, commercial interest are manganese, copper, nickel and cobalt. See supra note 4, at 47.

64. See 30 U.S.C. § 1401, (1980) “[I]t is the legal opinion of the United States that exploration for and commercial recovery of hard minerals of the deep seabed are freedoms of the high seas...”

65. This Convention, while binding those States who became parties to it, is also binding upon all States as the preamble indicates, “the following provisions [are] generally declaratory of established principles of international law...” see supra note 46.


67. UNCLOS III; Rules of Procedure, U.N. Doc. A/CONF.62/30/Rev.2. See also Draft Convention, supra note 16, at 1 (Preamble), “the problems of ocean space are closely interrelated and need to be considered as a whole, ...”
Convention on the Continental Shelf. Legislation creating the legal basis for a United States EEZ would have circumvented both of these problems.

Should it be clear that UNCLOS III would fail to achieve a text acceptable to the United States, then the introduction of additional reciprocal legislation granting rights for the commercial recovery of hard minerals from the Area would prove legitimate and necessary. The negotiation of a reciprocating State regime, while UNCLOS III continues to be the optimal means of achieving ordered cooperation by the community of nations over the uses of ocean space, is an obvious violation of the principle of good faith. This is especially true in light of the fact that all of the reciprocating States are parties to the United Nations Declaration of Principles Resolution which states, "All activities regarding the exploration and exploitation of the resources of the Area and other related activities shall be governed by the international regime to be established." The negotiation and subsequent entry into force of a mini-treaty by nations who have previously agreed to commit themselves to the lawmaking efforts of UNCLOS III would amount to a serious breach of comity and, more significantly, international agreement. This is but another example of the Act's shortcomings as it calls for the Administrator of NOAA to seek such a regime.

The Deep Seabed Hard Mineral Resources Act has not only failed in achieving its primary objective, the continued development of seabed mining technology, but it has also created difficulties for the continued development and codification of international law of the sea. It is now clear that the establishment of a United States Exclusive Economic Zone is not only legitimate, but very necessary as recent and previous discoveries of valuable deep seabed deposits lying within 200 nautical miles

68. See supra note 27.
70. See supra note 53.
71. See supra note 47.
72. "The Administrator, in consultation with the Secretary of State and the heads of other appropriate departments and agencies, may designate any foreign nation as a reciprocating state..." See 30 U.S.C. § 1428 (1980).
from the United States coastline might very well prove to be of significant economic concern. Clearly, the deep seabed and subsoil adjacent to the shores of the United States will only grow in significance as land-based reserves of critical industrial minerals continue to dwindle. One can only hope that United States legislators will have the foresight to enact legislation which will promote the efficient continued development of deep seabed mining technology through the creation of a United States Exclusive Economic Zone. The future of the United States deep seabed mining industry may very well depend upon it.