The World Ocean: A Plan for International Action

Edward J. Dempsey

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Over two-thirds of the earth's surface is occupied by the ocean. For centuries Man, the land-dweller, has turned to the seas as a source of food, means of trade and communication, defense against invasion, and medium for sport and recreation. But for all his use of it, Man's knowledge of the nature of the ocean remained meager, and his activity was concentrated on or within a few feet of the surface. With the voyage of the research ship *H.M.S. Challenger* in 1872-76, however, the study of the sea assumed a three-dimensional aspect, and a new science—oceanography—was born. Due in part to technological advances occasioned by World War II, oceanography has gained a new momentum. Optimistic observers are now depicting the seas, especially the seabed and subsoil, as an almost limitless source of food and minerals—the answer to problems posed by a constantly increasing world population.

Present commercial development is focused on realizing the vast fishing potential of the oceans and moving into deeper and deeper water with offshore oil wells. But research and planning are being conducted in many new areas of oceanographic interest. The National Council on Marine Resources and Engineering Development recently awarded contracts for studies ranging from the potential of aquaculture for providing food from the sea to the observation of the ocean from spacecraft.¹ The aspect of oceanography that has stimulated the most interest among economists, social planners, and industrial developers is the possibility of exploiting the resources of the seabed and subsoil of the oceans. Prospecting for minerals on the sea floor in exposed ocean areas is a recent development, but already it is predicted that the next "glamour industry" will be ocean based.² One commentator foresees deep ocean technology developing in such a fashion that "we may expect a significant proliferation of non-military submersibles and low-cost equipment capable of operating throughout the water column at or on the bottom and capable of exploiting the seabed or the resources of the seabed."³

As with all of Man's activities, a body of law has developed around his involvement with the sea. From the early Rhodian laws to the Treaty of Torde-

sillas⁴ through the seventeenth century debate between *Mare Liberum* and *Mare Clausum*,⁵ nations have attempted to formulate principles and devise codes through which their use of the seas could be justified. As national interests in the use of the seas change, so does the body of law which governs oceanic activity. It has been said that “[p]olicy, like technology, will not stand still.”⁶ With the movement from the surface to the depths of the sea, old laws must be modified and new agreements reached.

President Johnson and the Eighty-ninth Congress recognized the need for planning in the area of ocean development and took a significant step in that direction by passing the Marine Resources and Engineering Development Act of 1966.⁷ This Act established the National Council on Marine Resources and Engineering Development, chaired by the Vice-President and composed of cabinet-level officers, to plan a coordinated federal program in marine science development. A Presidential Commission on Marine Science, Engineering, and Resources was also created to recommend a national oceanographic program adequate to achieve the goals stated in the parent legislation. To achieve this purpose, the Commission was divided into panels, with the International Panel, headed by Carl A. Auerbach, the most directly concerned with recommending a new legal framework for future ocean development.⁸

In its report,⁹ the Commission proposed a comprehensive national program for marine development and a specific international legal regime to govern the exploration and exploitation of the mineral resources underlying the high seas. The recommended legal regime is based on a redefinition of the “legal” continental shelf, the creation of an “intermediate zone” between the continental shelf and the deeper ocean areas, and the establishment of a registry authority

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4. Signed June 7, 1494 by Spain and Portugal to settle claims arising from Columbus’s first voyage. This treaty purported to divide the world’s oceans along a meridian located 370 leagues west of the Cape Verde Islands.

5. To justify its seizing a Portuguese vessel, the Dutch East India Company retained Hugo Grotius to prepare a legal case. Grotius produced a treatise called *De jure praedae*, one chapter of which was published in 1609 as *Mare Liberum*. Grotius maintained that the ocean was free to all nations. “[T]he English disagreed, and, thus, began the battle of the books. William Welwood attempted to rebut Grotius’ assertions in his *Abridgement of All the Sea Laws*, published in 1612. Grotius presented a counter rebuttal. The English then retained another great scholar, John Selden, to rebut Grotius’ counter rebuttal. The product of Selden’s work was entitled *Mare Clausum*, which was completed in 1617 or 1618, but not published until 1635.” Stang, *The Walls Beneath the Sea*, UNITED STATES NAVAL INSTITUTE PROCEEDINGS, March 1968, at 36.


to record claims and, in a limited fashion, to oversee the orderly development of ocean mineral resources. Concurrently, the Commission recommended creation of an International Fund to be administered within the context of the proposed legal framework. This Comment will analyze the Commission's proposed legal regime in relation to the legal history of the seabed and the projections of future objectives and needs in undersea development.

The Development of the Continental Shelf Concept

The first legal step into ocean space was the 1942 treaty between the United Kingdom and Venezuela which allocated jurisdiction over the seabed and subsoil of the Gulf of Paria. Such bilateral action was of little interest to other states since the area, which lay between Trinidad and the coast of Venezuela, was substantially circumscribed by the parties to the treaty. Although the term "continental shelf" was not used in the treaty, it is believed that this was the first appearance in state practice of that now familiar geo/legal concept.

A more significant step toward a legal regime for sub-surface ocean areas resulted, however, not from bilateral or multilateral accord, but rather from a unilateral declaration. On September 28, 1945, President Harry S Truman proclaimed that "the Government of the United States regards the natural resources of the subsoil and sea bed of the continental shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States, subject to its jurisdiction and control." The Truman Proclamation became the keystone for undersea legal development in the following decade. A study was begun in 1951 by the International Law Commission of the United Nations to determine the present state of the law of the sea and to project what it should be in the future. This study culminated in the 1958 Geneva Conference which codified the law of the sea into four conventions.

12. Proclamation No. 2667, Policy of the United States With Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf, September 28, 1945, 10 Fed. Reg. 12303 (1945). Although the proclamation did not itself define the area involved, a press release accompanying the proclamation indicated that the claim being made by the United States was only to the geologic continental shelf. The press release stated that, "[g]enerally, submerged land which is contiguous to the continent and which is covered by no more than 100 fathoms (600 feet) of water is considered as the continental shelf." 13 DEP'T STATE BULL. 484 (1945).
including the Convention on the Continental Shelf. Mirroring United States’ policy as expressed in the Truman Proclamation, this convention, which became effective in 1964 upon ratification by 22 nations, affirmed the coastal states’ exclusive rights to explore and exploit the natural resources of their shelves.\footnote{14}


Before discussing the problem of establishing a legal regime for the deep ocean seabed seaward of the continental shelf (or recognizing the legal principles which may already appertain), the present legal status of the various segments of the sea as codified by the 1958 Conference should be outlined (see Figure 1).

Closest to the land there exist internal waters, \textit{e.g.}, bays, inlets and harbors, which represent that part of the sea landward of the baseline from which the territorial sea is measured. These waters have the same legal status as the land territory of the state.\footnote{15} The next belt of waters is the territorial sea. The sovereignty of the coastal state extends to this area, including the seabed, the subsoil, and the airspace above the waters.\footnote{16} The only legal difference between territorial sea and internal waters is the right of innocent passage guaranteed to ships of all states through the former.\footnote{17}

Despite agreements reached in the 1958 Conference, a significant bar to international cooperation in the use of the seas remains because the participants were unable to agree on the breadth of the territorial sea. A second conference was called specifically to deal with the breadth of this area and the establishment of fishing zones in the high seas beyond the limits of the territorial sea. At this second conference, held in 1960, a joint United States-Canadian compromise proposal calling for the establishment of a six mile limit to the territorial sea with a contiguous six mile fishing zone failed to pass by one vote.\footnote{18} This important question remains unsettled, and as of December 1, 1968, there were at least 48 states claiming a territorial sea between three and six miles wide while another 48 claimed a width between nine and 200 miles, 38 of this latter group asserting a 12 mile jurisdiction.\footnote{19} The United States continues to claim a

\begin{footnotes}
\begin{enumerate}
\item Id. art. 2.
\item Id. art. 14.
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three-mile territorial sea. Little hope is seen for any general agreement on the breadth of territorial waters while the "cold war" persists.

Seaward from and adjacent to the territorial sea and extending 12 miles from the baseline there is a zone of the high seas known as the "contiguous zone." Here the coastal state may exercise such control as is necessary to prevent or punish "infringement of its customs, fiscal, immigration or sanitary regulations within its territory or territorial sea." Because of the specific 12 mile limit fixed for the contiguous zone, this concept has meaning only for those states which claim a territorial sea less than 12 miles wide.

Those waters not included within the territorial sea or internal waters of a state are high seas. The 1958 Geneva Conference specifically provided in the Convention on the High Seas that, "[t]he high seas being open to all nations, no state may validly purport to subject any part of them to its sovereignty." This principle of freedom is modified, to some extent, by the provisions relating to the exercise of authority in the contiguous zone and by the direction that this freedom "shall be exercised by all States with reasonable regard to the interests of other States in the exercise of the freedom of the high seas."

By outlining a legal regime for the continental shelf areas, the 1958 Conference, to a limited degree, considered the sea bottom as well as the surface and water column. The regime enacted applies "to the seabed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea [the seabed of the territorial sea is subject to the sovereignty of the coastal state by virtue of the Convention on the Territorial Sea and the Contiguous Zone], to a depth of 200 metres or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas." This open-ended definition was the result of an attempt to delimit in legal terms the boundaries of the geologic continental shelf, the actual limits

20. "Since no compromise on the territorial sea limit was reached at the Conference, the United States . . . will continue to adhere to the long-established and currently recognized territorial sea of 3 miles." Dean, supra note 18, at 788. However, the United States subsequently extended its jurisdiction over the fishery resources of the sea in a zone extending nine miles beyond the three mile territorial sea. (16 U.S.C. §§ 1091-94 (Supp. III, 1968)). While the legality of this extension of jurisdiction depends on customary law developed through the practice of states rather than on any express provision of the 1958 Geneva Conventions, it approximates the result which the U.S.-Canadian compromise proposal would have achieved.


24. Ibid.

of which vary considerably from area to area. Its interpretation has been the subject of continuing debate since the 1958 convention. In view of the uncertainty evidenced by this debate, the Commission has recommended that the exploitability test be replaced by a specific distance standard, i.e., 50 nautical miles from the baseline, while retaining the alternative 200 meter depth test.

Thus, as a result of the 1958 Conference, the jurisdictional divisions of the world's surface waters, viz. high seas, territorial seas and, internal waters, include within them all of the oceans. There is no area of the sea which is not defined by one of these terms and therefore all are subject to a defined legal regime. The same is not presently true, however, for the ocean bottom unless one interprets the exploitability test of the Convention on the Continental Shelf as extending coastal state jurisdiction to a mid-ocean median line. The seabed and subsoil of the high seas seaward of the continental shelf have not been the subject of international agreement. Some international planners believe that some form of international legal regime for the deep ocean seabed must be established soon.

But, others see the harnessing of sea resources to be years away and would defer establishment of a deep ocean legal regime until more is known of the technological and economic specifics of exploitation of the sea bottom. Still others see an effective legal regime developing only from specific disputes allowing adverse parties to advance theories which will evolve through the

26. U. S. DEP'T OF STATE, SOVEREIGNTY OF THE SEA, Geographic Bulletin No. 3 (1965), at 7:
On the average the continental shelf extends seaward for about 30 miles. But the average width is not very meaningful because of the great variation to be found from place to place. Along the west coast of South America, for example, where mountains rise sharply from the coast, the submarine surface in turn plunges to great depths with very little trace of a ledge which could be construed as a continental shelf. At the opposite extreme, the entire Bering Strait area, extending 800 miles north of the north coast of Siberia, is less than 100 fathoms in depth. At other places, also, the width of the shelf is measured in hundreds of miles, including the Atlantic Ocean off the southern coast of Argentina and the South China Sea off the eastern coast of the Malay Peninsula. The Persian Gulf, some 600 miles long by 230 miles wide is nowhere deeper than 50 fathoms. Its seabed qualifies in its entirety as continental shelf.
27. COMMISSION'S REPORT, supra note 9, at 145.
28. See text accompanying notes 56-59 infra.
30. See letter from Allan Shivers, President of the Chamber of Commerce of the United States, to Secretary of State Dean Rusk, September 14, 1967 (Hearings on S.J. Res. 111, S. Res. 172 and S. Res. 186 Before the Senate Comm. on Foreign Relations, 90th Cong., 1st Sess. 62 (1967) [hereinafter cited as Senate Hearings]).
adjudicative process into a stable legal structure.\textsuperscript{31} “Premature” has thus become a key word with those who oppose immediate movement toward international agreement in ocean space. Critics of this attitude include Eugene Brooks who has characterized these objections as “conclusory generalizations not always accompanied by factual explanation, [which] have a tendency to ring down the curtain on analytical debate.”\textsuperscript{32} Furthermore, the report of the Commission’s International Panel notes that: “unless a new framework is devised, some venturesome governments and private entrepreneurs will act in accordance with one or the other of the undesirable alternatives possible under the uncertain status quo and in time create faits accomplis that would be difficult to change, even though they adversely affected the interests of the United States and the international community.”\textsuperscript{33}

Present and Future Scientific Activity Under the Seas

One reason that the “conclusory generalizations” which Mr. Brooks criticizes are not “accompanied by factual explanation” is that the facts tend to belie the assertion of prematurity. On the ocean bottom there is a frontier which has been characterized as “potentially more active than outer space, where homesteaders are moving farther out and deeper every year.”\textsuperscript{34} Already the Department of the Interior has granted oil and gas exploration and exploitation leases in depths up to 1500 feet as far as 32 miles from the coast.\textsuperscript{35} Technology is expanding worldwide to meet the challenge of deep ocean exploitation. On August 2, 1968, a French oil company successfully installed a prototype offshore production platform on a test location in the Bay of Biscay “to determine feasibility of using larger units of its type to drill and produce wells in water depths as great as 1,000 feet.”\textsuperscript{36} The technology of ocean mining is also being developed, and although some suggest that the prospect of deep ocean mining is remote, the Chief Scientist of the Naval Material Command’s Deep Submergence Systems Projects Office contends that “low-cost vehicles capable of

\textsuperscript{31} Letter from Thomas A. Clingan, Jr. to Sen. Claiborne Pell, December 5, 1967 (id. at 63).
\textsuperscript{33} \textbf{COMMISSION ON MARINE SCIENCE, ENGINEERING AND RESOURCES, REPORT OF THE INTERNATIONAL PANEL} VIII-24 (Preprint ed. 1969) [hereinafter cited as \textit{REPORT OF THE INTERNATIONAL PANEL}].
\textsuperscript{34} Cheever, \textit{The Role of International Organization in Ocean Development}, 22 \textit{INT’L ORGANIZATION} 629, 640 (1968).
\textsuperscript{35} H.R. REP. No. 999, 90th Cong., 1st Sess. 164 (1967).
\textsuperscript{36} Cotterlaz-Rennaz & Vilain, \textit{Unique Production Platform at Work off France}, \textit{WORLD OIL}, December 1968, at 68.
exploitation are technologically feasible and will be realized within the next 2
decades. 37

From these deep sea submersibles, the next step in the efficient exploitation of
the seabed will be to fix stations on or in the sea floor. Experiments along this
line have already been carried out in depths as great as 600 feet, and it is con-
tended that the technology now exists to extend the construction of such stations
to any depth; "only the motivation and money are lacking." 38 One of the most
startling developments in the advance to the deep ocean is the introduction of
men as free swimmers in previously prohibitive depths by the technique known
as "saturation diving." 39 This capability is the basis for the prediction that "by
1975 there will be colonies of aquanauts living and working on the ocean floor
at depths in the neighborhood of 1,500 feet." 40 In one of the more enthusiastic
projections of future ocean resource exploitation, an outline of a "possible or
hypothesized national program in oceanography" predicts construction of a
manned laboratory at 1,000 feet by 1970, the establishment of manned habita-
tion at 6,000 feet in 1972, the mining of the ocean floor in 1975, and the oc-
cupation of the mid-Atlantic ridge by 1980. 41 Substantial support for these
predictions can now be found in the Commission's Report. In its recommenda-
tions for establishing a national capability in the sea, the Commission urges
development of the competence necessary to occupy the bed and subsoil of the
United States' territorial sea, utilization of the continental shelf and slope to a
depth of 2,000 feet and, as a long-range goal, "achievement of the capability
to explore the ocean depths to 20,000 feet within a decade and to utilize the
ocean depths to 20,000 feet by the year 2000." 42

Development is being delayed, however, by the absence of national and/or
international legal framework in which progress could take place. "As things stand now," reports the Harvard Business Review, "private corporations are not motivated by clear goals or market opportunities. Indeed, businessmen explain that it is risky, even hazardous, for their companies to attempt to set common goals under our current laws. It is this fact, together with other circumstances, which makes it so necessary to get the overall government planning process started . . . ." The work being done under the mandate of the Marine Resources and Engineering Development Act, especially the Commission's Report, is a significant start in the area of government planning and should begin to relieve the uncertainty hindering undersea development.

The United Nations is also engaged in planning for future undersea development. The United Nations Ad Hoc Committee to Study the Peaceful Uses of the Sea-Bed and the Ocean Floor Beyond the Limits of National Jurisdiction met last year to discuss many of the same questions which were considered by the President's Commission. The U.N. Committee was established in response to the submission by the Maltese delegation of a proposed declaration and treaty regarding the reservation of the seabed for peaceful uses. This committee met throughout 1968 and divided its tasks between an Economic and Technical Working Group and a Legal Working Group, each writing separate reports. It had been hoped that as a result of the work of the Ad Hoc Committee the Twenty-third General Assembly of the United Nations would be in a position "to establish a Committee on the Oceans with a broad mandate to develop law and to promote international cooperation with respect to the ocean and ocean floor." However, the major recommendation of the Committee, whose combined report was submitted late in 1968, was the establishment of a permanent committee to carry on the unfinished work begun during the past year. Although the Legal Working Group did not arrive at a definitive recommendation ("Owing to the limited time at its disposal and the complexity of the problems before it, the Legal Working Group was not in a position . . . to com-

43. Young, The Legal Regime of the Deep-Sea Floor, 62 Am. J. Int'l L. 641 (1968). "Further developments are now perhaps as dependent on favorable economic and legal conditions as on improvements in physical capabilities." Id.
44. Klima & Wolfe, supra note 41, at 102.
47. Goldberg, U.N. Establishes Ad Hoc Committee to Study Use of Ocean Floor, 58 Dep't State Bull. 125 (Jan. 22, 1968).
plete its programme of work."50), a valuable interchange of ideas took place during the Group’s meetings.

**United States Ocean Policy**

As in the development of all new programs, the terms of the legal system finally adopted for the seabed will be determined by the goals established by the framers. Perhaps the most oft-quoted statement of United States policy regarding ocean development is that which President Johnson made upon the commissioning of the survey ship *Oceanographer* on July 13, 1966: "[U]nder 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 must ensure that the deep seas and the ocean bottoms are, and remain, the legacy of all human beings."51 The intention of United States policy makers to eschew a chauvinistic attitude in the development of ocean resources has been repeatedly emphasized:

>[A]s the great majority of states view the situation, the resources of the deep seabed are in a real sense a legacy of mankind. Such resources should not, in their opinion, be appropriated or exploited by those nations rich or fortunate enough to be able to operate in the ocean depths—at least, not unless the stake of other nations in this great reservoir is recognized. The question confronting us and others in the United Nations is to determine whether we can jointly work out ways in which these resources, when science and technology make them available, can be equitably utilized in the interest of all concerned. . . . The task of the next few years is to produce that broad current of agreement which will enable Americans to play their part with people from many other states in an orderly, harmonious, and beneficial effort to utilize ocean floor resources in the interest of mankind.52

The objectives of United States policy as expressed by President Johnson and the State Department are threefold: (1) establishment of a legal regime broadly acceptable to all the nations of the world; (2) avoidance of conflicts among nations exploiting seabed resources; and (3) encouragement of development and use of the deep ocean floor.53 These objectives were first reduced to concrete proposals which included the following:

1. No State may claim or exercise sovereignty or sovereign rights over any
proposals in a draft resolution submitted to the United Nations Ad Hoc Committee on June 28, 1968.

The President's Commission voiced its support for these principles,54 while setting forth the specific objectives toward which its proposed legal framework is directed. First, a workable legal regime for the seabed must encourage the necessary technological effort and capital investment by making it possible to carry on exploration and exploitation activities in an orderly and economic manner. Secondly, such a regime must give all nations a "fair chance" to participate in the development of undersea resources. Thirdly, the system adopted must be one which will create a minimum of vested interests in order that future changes in the framework will not be inhibited. Lastly, and perhaps most importantly, it must "seek to avoid and not to provoke international conflict."55

Proposed Alternative Regimes for the Seabed

The various regimes for the seabed proposed in recent years should be reviewed to establish the context in which the Commission's Report must be appraised.

In considering alternative legal regimes for the deep sea floor, one of the earliest questions to arise was whether the legal status of resources was already resolved by virtue of the law relating to the continental shelf. An influential proponent of this theory, Shigeru Oda of Japan, believes that because of the exploitability clause in the definition of the continental shelf, "all the sub-

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part of the deep ocean floor. There shall be no discrimination in the availability of the deep ocean floor for exploration and use by all States and their nationals in accordance with international law;

2. There shall be established, as soon as practicable, internationally agreed arrangements governing the exploitation of resources of the deep ocean floor. These arrangements shall reflect the other principles contained in this Statement of Principles concerning the Deep Ocean Floor and shall include provision for:

(a) the orderly development of resources of the deep ocean floor in a manner reflecting the interest of the international community in the development of these resources;

(b) conditions conducive to the making of investments necessary for the exploration and exploitation of resources of the deep ocean floor;

(c) dedication as feasible and practicable of a portion of the value of the resources recovered from the deep ocean floor to international community purposes; and

(d) accommodation among the commercial and other uses of the deep ocean floor and marine environment.


55. Commission's Report, supra note 9, at 141-42.
marine areas of the world have been theoretically divided among the coastal states at the deepest trenches."56 This view is noted by most commentators, but few take it seriously. A typical reaction is that of Luis Kutner who, while proposing his own solution to the problem of public order in ocean space, commented: "[A]s it becomes possible to exploit the sea-bed at increasingly greater depths, exploitation may occur in mid-ocean, hundreds and perhaps thousands of miles from the coast. A literal reading of article 1 [of the Convention on the Continental Shelf] would enable the coastal state from which base lines were drawn to claim such areas. But the background of the Convention indicates an intent to limit claims only to the shallower areas of the ocean reasonably adjacent to the coast."57 The U.S. State Department holds a similar view. David H. Popper, Deputy Assistant Secretary of State for International Organization Affairs, stated in an address before the Symposium on Mineral Resources of the World Ocean that:

The open-ended nature of this outer limit seemed rather academic in 1958 when the convention was concluded. It is highly pertinent today. . . . Quite apart from the fact that only 37 nations have ratified the convention, the farther exploitation goes beyond the mentioned 200-meter isobath, the more weight must be given to the concept of adjacency to the coast. I would not wish to hazard an opinion as to where adjacency ends, but respectable legal authorities have stated that it cannot be deemed to extend to the point where, in midocean, it touches the corresponding extension from the opposite shore.58

Perhaps the international debate over this theory has ended now that the U.N. Ad Hoc Committee has submitted its report. The Legal Working Group thought it was "obvious" that the continental shelf did not extend to mid-ocean, but because of the controversy felt constrained to point out that "none of the members in the Working Group had suggested that either international law or article 1 of the Continental Shelf Convention authorizes the extension of limits for an indefinite distance into the deep ocean floor and this was considered possibly a valuable finding."59

Assuming that the deep sea bottom is not controlled by the Convention on the Continental Shelf, there are a variety of legal regimes which could be applied. However, we do not start with a clean slate. Man's long experience with the sea still remains pertinent.60 Many commentators who emphasize the legal

57. Kutner, supra note 11, at 647.
58. Popper, supra note 6, at 172.
59. REPORT OF THE AD HOC COMMITTEE, supra note 48, at 48.
60. Young, supra note 43, at 642: "Any legal regime . . . must . . . be framed with due regard for established principles in the law of the sea: the accepted practices of
history of the oceans suggest that the res communis regime of the high seas could be extended to the seabed so that its resources would be acquired in the same legal manner as fish are acquired from the sea, i.e., by reduction to possession. Such a proposal would apply by analogy the expedient devised to insure respect for the rights of others in the cooperative use of the high seas; res communis requires that a ship, as a prerequisite to its right to sail on the high seas, be registered in some state. The state then assumes jurisdiction over the ship and its crew to insure their compliance with the international law of the sea.\textsuperscript{61} As a proposed legal regime for the seabed, this suggestion has become known as the “flag-nation approach.” Although this regime might profitably be invoked prior to the establishment of a new legal framework for the ocean floor, its usefulness as a basis for a permanent legal system is subject to several significant objections. One goal of the new regime will be the economical exploitation of the seabed. Some security, therefore, must be guaranteed to those who invest their industrial capacity in undersea mining. Exclusivity, a vital feature of mining law on land, will be just as necessary for undersea mineral development. The principle of res communis prohibits the exercise of sovereignty over the submarine area where resources are found. The flag state, then, could not guarantee to its industrialists the exclusivity of claim which they need. “The lack of this, combined with the necessity of committing vast sums to mining ventures years in advance of commercial return, can be anticipated ultimately to deter both exploration and development of mineral resources.”\textsuperscript{62}

Richard Young has summarized other points concerning the flag-nation approach as follows:

On the credit side, the extension of the flag state’s legal system to a deep-sea operation would be a relatively quick and easy way to provide a developed legal framework, administrative machinery, and the security of tenure [although not the exclusivity of claim] necessary for the success of the enterprise. . . . On the debit side, the approach would favor the few countries possessing the technology and capital


required for such undertakings, to the exclusion of most nations, and thus might be subject to charges of "neo-colonialism," unjust advantage, and the like. It might also give rise to international conflict over the richer sites, and might encourage "gold-rush" tactics and uneconomic exploitation activities.63

It has been suggested by some commentators, notably Professors McDougal and Burke,64 that efficient exploitation of sea resources can, nevertheless, be maintained under a res communis regime. This assertion is based on the view that exclusive exploitation rights would not be necessary because of the "vastness and the immense riches of the oceans."65 At first blush the vastness of the ocean might suggest that initially interaction between exploiters and competition for deep sea resources would be minimal. "It is the nature of man, however, to congregate competitively at the site of another's success . . . . It may therefore be anticipated that the identification of an important mineral resource in the deep ocean or the known location of an object of interest . . . . will result in congregation of competing entities."66 Therefore, even if one accepted the premise of marine resource inexhaustibility,67 there would still exist a need for exclusivity to attract entrepreneurs to the deep sea, a need which the flag-nation approach, without additional qualifications, could not satisfy.

Another approach to the legal structuring of ocean space which would require a minimum of international rules is that based on the view of the seabed as a res nullius—the property of no one, subject to appropriation by anyone. Many commentators see this principle as the basis of the law now appertaining to the seabed.68 The application of a res nullius regime to the ocean bottom is

63. Young, supra note 43, at 647.
65. Ibid.
67. This premise has been shown to be invalid with regard to the most common resource of the sea—fish. "[E]ach stock of fish is capable of being overfished, to the detriment of all. In numerous instances, unregulated fishing effort has had this effect. Accordingly, to preserve stocks to the benefit of all, fishing effort on any species must be regulated so that it will not exceed that level corresponding to the maximum sustainable yield." Chapman, Who Owns the Sea? in H.R. Rep. No. 999, 90th Cong., 1st Sess. 159 (1967).
68. One spokesman has pointed out that:

[j]n contrast to some opinion, there is no legal void, there is no real uncertainty as to the rules which apply in the deep ocean. The public order of the oceans has been long established. In a nutshell, the high seas water surface (and column) belong to everyone and are therefore subject to appropriation by no one; the resources of the high seas and the sea bottom beyond the legal continental shelf belong to no one and are therefore subject to taking by anyone; the activities of persons and nations pursuant to these rules must be respected by everyone. Wilkey, supra note 62, at 34.
an analogy to the legal status of unclaimed land territory, but the validity of this analogy in the different environment of ocean space is open to question. It should be noted at this point that the terms “res nullius” and “res communis” have been used to such an extent in literature concerning possible regimes for the deep ocean areas that they have lost much of their meaning. The International Panel of the President’s Commission noted this fact in its report and concluded that “the inferences one draws from either res nullius or res communis are likely to depend upon the results one prefers. Nor need these results be the same for all resources or uses of the oceans. For example, the fact that fish are a mobile and replenishable resource and minerals are immobile and exhaustible may lead to a view of either res nullius, or res communis which is different for the one resource than for the other.”

In this respect it is possible to support the flag-nation approach on either theory, but since it is generally accepted that the notion of occupation must be a part of any approach based on the res nullius theory, this Comment will assume that the flag-nation approach is more closely aligned with the philosophy of res communis.

The res nullius approach suffers from many of the same defects as does the flag-nation approach, e.g., nonexclusivity and unacceptability to lesser developed nations. It would be difficult to devise practical standards by which the type and extent of occupation needed to legitimize a claim to exclusive authority over a resource area could be measured.

As in the flag-nation approach, if one were to consider only United States’ interests, the application of res nullius to the seabed would probably be acceptable because of the technical superiority of U.S. industry. Only the technologically advanced nations would be able to lay claim to the resources of the sea in this manner; the lack of such technical competence in lesser developed nations would permanently exclude such countries from participation in deep sea exploitation, “for presumably as their technology and financial resources would increase, so too would those of the advanced nations, thus leaving the backward states with only the ‘left-overs’ for their occupation and claim.”

69. REPORT OF THE INTERNATIONAL PANEL, supra note 33, at VIII-21.

70. “[N]o laborious demonstration is required to show the difficulty of devising standards by which to measure the nature and degree of occupation necessary to validate a claim to exclusive authority. . . . Can ‘occupation’ be effected from a dredging barge, or a ship, or one of the hybrid types of drilling rig which are becoming increasingly common? If it can, how much area should such a project be allowed to preempt, and by what objective criteria is this to be ascertained? And how are conflicting claims to be avoided if substantial stretches of sea bottom are subjected to an occupation based on a dredge or a rig established at one site only?” Young, supra note 43, at 646.

71. Robertson, A Legal Regime for the Resources of the Seabed and Subsoil of the Deep Sea: A Brewing Problem for International Lawmakers, NAVAL WAR COLLEGE REV., October 1968, at 78.
lius, then, would not satisfy the stated objectives of United States' policy in this area.

Both the *res nullius* and flag-nation regimes are thus unacceptable to the many developing nations of the world. In a pre-United Nations world where international law was developed more by the will of dominant powers than by a consensus of members in the international community, either one of these positions might have been implemented. But such is not today's world and more and more commentators view a truly international regime as the only viable solution to the administration of ocean space. A prime mover in the development of such an international regime is Arvid Pardo, Malta’s Ambassador to the United Nations. Ambassador Pardo has concluded:

> [T]here can be no doubt that an effective international régime over the sea-bed and the ocean floor beyond a clearly defined national jurisdiction is the only alternative by which we can hope to avoid the escalating tensions that will be inevitable if the present situation is allowed to continue. It is the only alternative by which we can hope to escape the immense hazards of a permanent impairment of the marine environment. It is, finally, the only alternative that gives assurance that the immense resources on and under the ocean floor will be exploited with harm to none and benefit to all.\(^7^2\)

If this international approach is accepted, certain questions must be asked, e.g., What form of international authority should have cognizance of the seabed? How much decision-making power will it have? What should be the reach of the international organization as to the subject matter over which it will have control? Should it govern all aspects of the use of the seas or only some? Which?

Several proposals have been advanced purporting to answer these questions. On the one extreme is the proposition that the United Nations or another international organization should be granted full title to the seabed and complete autonomy in administration of its resources. There seems to be too much opposition to this idea in both the United States and other countries, however, for it to be considered as an appropriate solution at the present time.\(^7^3\) Even if objections to such a large step in the direction of supranationalism were not so intense, there would remain practical barriers to acceptance of this regime.

Daniel Cheever, a Research Scholar at the Carnegie Endowment for International Peace, finds that present international organization is too weak to manage the sea directly and, further, that it is unlikely that international organization will be stronger in the water than it presently is on land. Even conceding these points, "premature control of more than half the globe by an international body, exercising ownership and holding title, is as likely to create controversy as it is to avoid it. It is as likely to be economically inefficient as efficient." Mr. Cheever also sees the chauvinistic attitudes of the various world nations as barring such a development: "There is no short-run prospect of establishing the world political authority necessary for the political decisions (policy choices) that would in anything like equal terms benefit rich and poor nations or coastal and noncoastal nations."

On the other end of the spectrum of internationalization is the organization with sharply defined and very limited authority. One observer has suggested that "[s]uch an international organization should not have any discretion in granting or refusing rights . . . . [and] [u]nder no circumstances should the exploration and development of the deep ocean be subject to control by international political administrative bodies." Between these extremes are many variations on the theme of a regulatory agency. Senator Claiborne Pell's proposed treaty for ocean space, the recommended treaty published by the United Nations Committee of the World Peace Through Law Center, and the regime proposed by L.F.E. Goldie all recommend some form of international registry agency as the basis of public order on the sea floor. Since a registry authority is also the essence of the Commission's recommendation, the remainder of the discussion will center on the Commission's proposals, with references to other suggested regimes as appropriate.

*Report of the Presidential Commission on Marine Science, Engineering and Resources*

The Commission did not attempt to devise a unified framework to govern all the uses of the seas but rather recommended separate consideration of the prob-

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75. *Id.* at 648.
lems involved in mineral exploitation and those involved in fishery development. While the Commission recommends merely improving and extending existing agreements in the area of fisheries, it urges the United States to take the initiative in proposing a new international framework for the development of deep sea mineral resources.\textsuperscript{81} The Commission’s recommendations for this international regime can be considered generally under three headings: (1) Jurisdictional Divisions, (2) International Registry Authority and (3) International Fund.

\textit{Jurisdictional Divisions}

Essential to any comprehensive legal framework for the seabed is redefinition of the continental shelf to avoid uncertainty occasioned by the exploitability clause. There is a divergence of views as to the proper limit for the redefined shelf. The available options include maintaining a narrow zone defined with reference to the 200 meter depth used in the Convention on the Continental Shelf, recognizing a wide zone defined by the interface between the continental slope and the deep ocean basins which is usually found at an average depth of 2500 meters (see Figure 1), or adopting a compromise definition combining a narrow zone with a transitional area.

The Commission has chosen the third alternative by recommending the shelf be redefined so that its seaward limit is fixed at the 200 meter isobath or, alternatively at the discretion of the coastal state, at 50 nautical miles from the baseline.\textsuperscript{82} Seaward of this redefined continental shelf the Commission proposes an intermediate zone extending to the 2500 meter isobath or 100 nautical miles, whichever alternative gives the coastal state the greater area.\textsuperscript{83} The character of the intermediate zone will be such that the regime of the deep sea area will apply, thus preventing the assertion by the coastal state of any sovereign rights in the zone. However, only the coastal state or its licensees will be authorized to explore or exploit the mineral resources in this transitional area.\textsuperscript{84} This concept of a “buffer zone” had been originally advanced by Louis Henkin, Hamilton Fish Professor of International Law and Diplomacy at Columbia University,\textsuperscript{85} whose ideas have left a major imprint on the work of the International Panel.\textsuperscript{86}

\begin{itemize}
  \item \textsuperscript{81} \textit{Commission’s Report}, supra note 9, at 14-15.
  \item \textsuperscript{82} \textit{Id.} at 145.
  \item \textsuperscript{83} \textit{Id.} at 151.
  \item \textsuperscript{84} \textit{Ibid.}
  \item \textsuperscript{86} In its consideration of the question “Should the United States Seek to Create a New Framework?” the International Panel draws heavily on the work of Professor Henkin as expressed in Henkin, \textit{Law for the Sea’s Mineral Resources} (A Report
The Commission proposed this regime in the face of strong argument favoring a wide zone. The American Branch of the International Law Association (American Branch) and the National Petroleum Council (NPC) have concluded that the present definition of the shelf, with its "exploitability" and "adjacency" language, should be interpreted to give the coastal state a wide zone in which it may exert sovereign rights, a zone extending to the base of the continental slope at 2500 meters. If it is desirable to eliminate the uncertainty in the language of the Convention on the Continental Shelf, the American Branch and the NPC suggest that the states concerned, by ex parte declarations, signify their intent to recognize the 2500 meter interpretation. Professor Henkin dissented from the position of the American Branch, saying "[i]n my view, its focus is narrow, its concerns parochial, and its proposals short-sighted." The position of the American Branch and the NPC is recognized in both the Report of the International Panel and the Report of the Commission, but, adopting the view of Professor Henkin, the Commission rejects the position as "contrary to the best interests of the United States."

The International Panel assigns four reasons for rejecting the concept of a wide zone: (1) the international community would regard such a position as a "grab" of the seas' resources; (2) such a proposal is "unfair" to non-coastal states and those states unendowed with shelves rich in mineral resources; (3) other coastal states would benefit proportionately more than would the United States; and (4) such an extension of sovereign rights seaward of a narrow zone would induce other nations to extend their authority throughout the water column as well as on the seabed, thereby creating vast areas of territorial sea.

The validity of the first two reasons is, at the present time, conjectural. The third and fourth objections are more substantive and require some analysis. Using estimates derived by the United States Geological Survey, the International Panel notes that the extension of the coastal state's sovereignty to the 2500 meter depth would add 479,000 square statute miles of seabed to the 850,000 square statute miles of area contained within the 200 meter isobath


88. American Branch Report, supra note 87, at XLI.
89. Commission's Report, supra note 9, at 144.
along the coasts of the United States. However, "other coastal States of the world would... gain proportionately more than the United States."

This proportional gain of other nations under the American Branch's and NPC's proposal is more conceptual than real. The coastal state will have, as a minimum, the same area off its coast available for exploitation whether the Commission's Intermediate Zone concept is adopted or the regime of the Convention on the Continental Shelf is extended to 2500 meters. Due to the alternative 100 mile limit in the Commission's recommendation, it is possible for a coastal state to have a larger exploitable area under the Intermediate Zone concept. It might be suggested that by extending the continental shelf regime the coastal state will realize an economic gain unavailable under international administration because of the fees and royalties attaching to exploitation in the Intermediate Zone. An objection based on this suggestion appears chimerical, however, when it is pointed out that most of the commentaries, including the report of the American Branch, see no significant obstacle in the concept of allocating royalties for international purposes, even from exploitation in the area defined by the Commission as the Intermediate Zone.

The remaining difference between these regimes is the concept of sovereign rights. When sovereign rights are extended to greater distances on the seabed, there is the danger (as the Panel notes in its fourth objection) that some states may seek to extend their authority throughout the water column, and perhaps to the airspace above. In his dissenting statement to the American Branch Interim Report, Louis Henkin noted that the waters above the extended seabed "would tend to become territorial sea." Such a tendency to encroach upon the traditional freedom of the seas has always been opposed by the United States. William T. Burke and Northcutt Ely, Rapporteur and Chairman, respectively, of the American Branch, commenting on Professor Henkin's fear of further expansion of coastal sovereignty to the superjacent waters similar to the action taken by Ecuador, Peru and Chile, claim that "history does not support this assertion. The claims of the Latin American countries... antedate the [1958]..."

91. Ibid.
92. Id. at VIII-22n.82. Cf. NATIONAL COUNCIL ON MARINE RESOURCES AND ENGINEERING DEVELOPMENT, Table II-1—Countries with Extensive Adjacent Shallow Ocean Areas, MARINE SCIENCE AFFAIRS—A YEAR OF BROADENED PARTICIPATION 19 (1969).
93. See text accompanying notes 134-46 infra.
94. AMERICAN BRANCH REPORT, supra note 87, at XXI (dissenting statement).
95. Speaking at the Naval War College in July, 1968, the Assistant Secretary of the Navy for Research and Development expressed the concern of the Navy that: [p]roposed seabed regimes might eventually result in claims and restrictions on the use of the superjacent waters and secondly might lead to information and reporting requirements that would pose unnecessary problems for military operations. While the Navy is free to operate on the high seas, and while it generally has the right of innocent passage through foreign territorial waters, it
Convention." While it is true that these claims were made six years prior to the codification of the Convention on the Continental Shelf, the International Panel's Report suggests that these claims were consequences of the Truman Proclamation of 1945, a unilateral declaration not too much different from the "ex parte declarations" which the American Branch and the NPC suggest.

One might be inclined to dismiss the extension of sovereignty throughout the water column by Ecuador, Chile, Peru and, now, Argentina as peculiar to those South American countries and a danger with which we need not be concerned in other areas of the world. Such is not the case. The Soviet Union has recently adopted an edict on the continental shelf and in connection with an analysis of this action Mr. William Butler has observed that many Soviet jurists consider that

all natural processes taking place in sea waters interact with processes occurring in submarine areas of the sea. "Physical and biological phenomena occurring in waters superjacent to the continental shelf may not be correctly understood and analyzed without simultaneously researching these phenomena on the seabed." Hence, "oceanographic research is connected with the seabed; i.e., the continental shelf." Presumably on the basis of this reasoning the Soviet Union may believe itself justified in requiring that consent be given before oceanographic

must gain the consent of the coastal state if it wishes to operate in foreign territorial waters.

Address by Robert A. Frosch, Symposium on Mineral Resources of the World Ocean. July 12, 1968, Naval War College Rev., October 1968, at 59. Arthur H. Dean, the Chairman of the United States Delegation to the 1958 and 1960 Geneva Conferences on the Law of the Sea, has pointed out the dangers inherent in the extension of territorial seas past a narrow zone:

As every island has its own surrounding territorial sea, extensions of the territorial sea limit to 12 miles all over the world would enclose a large number of existing high seas areas as well as restrict the use of a number of international straits. Furthermore, the territorial seas of neutral nations, if extended to 12 miles, could offer a safe haven from which enemy submarines might operate submerged and undetected by the coastal state, although in violation of international law.

Thus, aircraft and naval movements with or without air cover would be seriously restricted, if not made impossible.


96. American Branch Report, supra note 87, at XXII.


100. 7 Int'l Legal Materials 392 (1968).
research is conducted in waters superjacent to its continental shelf beyond territorial limits . . . .

It is just such an abrogation of the traditional freedom of the seas to which the United States has been and remains opposed.

This last objection, then—the fear of extension of sovereignty over larger areas of the high seas—is the most crucial. The Commission’s recommendation seems based on a more comprehensive view of our national interest than does that of the American Branch or the NPC. The Intermediate Zone concept avoids the hazard involved in extending sovereign rights while achieving much the same economic result, thus safeguarding the national interest both in our coastal waters and throughout the world.

International Registry Authority

The governing body for the regime developed by the President’s Commission will be an International Registry Authority. All claims to explore or exploit mineral resources in a particular area will be registered with this authority on a first-come, first-registered basis. The Authority will have no discretion in registering exploration or exploitation claims except that it may satisfy itself as to the technical and financial competence of the applicant prior to such registration. Initially, the registration of “a claim to exploit particular mineral resources in a particular area of the deep seas should confer upon the registering nation the exclusive right to engage in or authorize such exploration.” Upon proof of discovery, the claim to explore would be converted into a registered claim to exploit. The size of the area covered and the duration of the claim would be determined by the Authority. The Commission’s Report further provides that upon “expiration of the period of registration of a claim to explore or to exploit, further exploration or exploitation of the resources covered by the claim should be subject to whatever international legal-political framework is in effect at that time.”

The Commission has thus chosen to establish an independent regulatory agency with quite limited jurisdiction and discretion. This international agency approach has been recommended by other theorists as the best short-run method for meeting current objectives in deep sea mineral development, and

102. COMMISSION’S REPORT, supra note 9, at 147-49.
103. Id. at 148.
104. Id. at 149.
105. It is possible . . . that the oceans, the air space above them, and their subsoils, if weather and minerals are taken into account, can be exploited best to meet human needs in the short run by national programs regu-
it has the approval of those interests which desire that the resources of the seabed beyond the limits of national jurisdiction be used as a common good in the interest of mankind. Such a recommendation is a common feature of several other proposed draft treaties and other less formal suggestions for a legal system governing the deep sea, but among these plans are some notable differences.

Senator Pell's proposed treaty would create a licensing authority designated by the United Nations in accordance with procedures as outlined in the U.N. Charter. The Ocean Agency proposed by the World Peace Through Law Center would be established independently of the United Nations but brought into a "relationship" with it by agreement. Francis T. Christy has suggested that administration of an international regime be conducted under the direction of the United Nations because that body is extant and functioning, thus avoiding the problem of setting up a new administration, and because he believes the United Nations can be used advantageously for this purpose. Christy also recognizes, however, that United Nations administration is not a sine qua non and that "[s]ome other international body might work just as well."

The Commission avoids the wholesale involvement with the United Nations that Senator Pell and Mr. Christy contemplate, and at the same time defines

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106. See id. at 645-47; Address by Ambassador Arvid Pardo, in Proc. of the Am. Soc'y of Int'l L. 216, 227 (1968).
110. Ibid. Christy clarified his position concerning U.N. administration in a later article by saying:

The authority need not operate under the aegis of the United Nations. Obviously, the United Nations does not have, at present, an agency that is equipped to deal with such an authority, nor does the UN have the expertise required for management. These problems do not, however, preclude the establishment of such an authority within the UN structure. If the agency is so established, it would be clearly desirable for the authority to have a high degree of autonomy (similar, perhaps, to that of the World Bank), so that it might operate without pressure from the General Assembly.

the relationship which their proposed agency should establish with the United Nations. While the membership and manner of choosing the governing body of the Authority would be negotiated and set out in agreements embodying the new framework, the Commission envisions a structure that would "find its place in the family of the United Nations but should be as autonomous as the World Bank." Although the principle of working through and with the United Nations in order to develop it into a more valuable organization is a laudable goal, the Commission's approach takes practical notice of the difficulties involved in direct United Nations administration.112

Acceptance of a regime by a majority of nations is the basis for the guarantee of exclusive rights on the sea floor without which there would be no incentive for sizeable investments in the deep sea. In recognition of this, the Commission has proposed that the Authority be organized "on a 'multiple principle' representation, based on the technological capacity of its members as well as on their geographic distribution."113 Such an organization should prove as acceptable in this application as it has in the establishment of the International Bank for Reconstruction and Development (World Bank). The "multiple principle" of representation has been used for over two decades in the administration of the World Bank and the International Monetary Fund "where authority is derived from the alignment of voting power with economic power sufficiently to elicit the grudging acceptance of rich and poor alike."114 Since the World Bank's statute frees it from "the sacred cow of 'one state, one vote' . . . the United States has sufficient confidence in [it] to acquiesce in its conducting operational

111. COMMISSION'S REPORT, supra note 9, at 149.
112. Daniel S. Cheever, recognizing these difficulties, has noted that "[t]he United Nations and its agencies are as much cockpits of conflict as they are instruments of cooperation." Cheever, supra note 105, at 639.

In a more detailed fashion, Arvid Pardo has outlined the major difficulties in United Nations administration of the ocean floor:

[T]he United Nations does not have the power to give credible assurance that the ocean floor will in fact be used for peaceful purposes, since action in the Security Council can be blocked by a veto; a viable regime for the ocean floor must be acceptable to all significant coastal states, but mainland China and other states are not members of the United Nations and could be expected to object to a regime administered by an organization in which they do not participate; powerful, technologically advanced countries, such as the United States and the Soviet Union, whose acquiescence is essential for the viability of any legal regime established for the ocean floor, would be unlikely to give their consent to vast areas in which they have vital interests being administered by an organization in which they possess a voting power no greater than that of very small countries, such as mine. Finally the United Nations does not possess the required expertise for management nor is its decision-making process such as to give reasonable assurance that the ocean floor, the last frontier of mankind on earth, will be administered in an orderly and efficient manner.

Pardo, supra note 106, at 225.
113. COMMISSION'S REPORT, supra note 9, at 149.
114. Cheever, supra note 105, at 641.
activities. With its weighted vote and its friends among the industrial nations the United States can influence if not control the Bank's operations.\textsuperscript{111}\textsuperscript{15}

It is anticipated that this distribution of representation within the International Registry Authority will elicit the acceptance, hopefully more than "grudging," by enough nations to make this a viable organization. The U.N. representative of the small but influential island of Malta has expressed his country's recognition that "the realities of advanced technology, financial capability, and of power require . . . due weight," and has stated that Malta "would not oppose the concept that a small number of maritime states having outstanding technological and financial capability should receive majority representation on the board, so long as it is also accepted that all states, whether landlocked or coastal, should have a voice in it."\textsuperscript{116}

In order to have a workable administrative structure, it is necessary that the proposed international regime be not only politically acceptable to a large number of nations, but also economically enticing to all technically competent entrepreneurs. Among others concerned with a favorable economic atmosphere, Melvin Conant, a representative of the Government Relations Department of Standard Oil of New Jersey, in an enlightening speech given at the Law of the Sea Institute in 1968, explained the importance of a "predictable institutional environment" to potential investment. Predictable institutional environment is one of many elements used by oil companies in determining the risk-cost factor versus the potential gain. The internal political stability of a government as well as its relations with and ability to defend against encroachments by neighboring states are important factors to be considered by entrepreneurs before investing millions of dollars in an already speculative business. By careful drafting of the International Registry Authority's statute, this regime should be able to provide not only a "predictable institutional environment" but also a standardized institutional environment throughout the world's deep sea areas.

In contrast to Senator Pell's Sea Guard\textsuperscript{117} and the Tribunal proposed by World Peace Through Law Center,\textsuperscript{118} the Commission recommends the Registry Authority be granted enforcement powers limited to the right of inspection only\textsuperscript{119} and that activities conducted under registered claims be governed by the

\textsuperscript{115} Id. at 643.
\textsuperscript{116} Pardo, supra note 106, at 228.
\textsuperscript{117} Senate Hearings, supra note 30, at 7.
\textsuperscript{118} Proposed Treaty Governing the Exploration and Use of the Ocean Bed, supra note 79, at 19.
\textsuperscript{119} "[B]ecause we recommend that the Authority be empowered to cancel a registered claim if the registering nation fails to discharge its obligations properly, the Authority must have the means to perform this function fairly and with full knowledge of the facts. Accordingly, the Authority should be empowered to inspect all stations, installations . . . and to conduct appropriate hearings." COMMISSION'S REPORT, supra note 9, at 150.
civil and criminal laws of the registering state. Christy's regime would also provide for "some inspection scheme to ensure that the rights of the lease are not being abused . . ." In suggesting this inspection requirement, Christy notes that such a requirement does not differ substantially "from those relating to the exploitation of oil resources on the U.S. continental shelf. The only difference is that administration is in the hands of an international body rather than the U.S. federal government." The limited policing functions accorded the Registry Authority would be conducted, as would all its functions, under the direction of the weighted vote of the governing board. The limitations on the policing functions of the Authority recommended by the Commission is another indication of the Commission's desire to restrict the supranational aspects of such a body.

The limited authority of the Commission's proposed regime can be contrasted with the regime envisioned by Ambassador Pardo of Malta. He and his government "conceive the authority as being endowed with a general competence over the marine environment as a whole, and a specific wider competence over the seabed and ocean floor." More specifically, Ambassador Pardo sees the authority assuming responsibility "for the majority of existing international programs concerning the oceans and the marine environment and the living resources thereof now conducted by half a dozen United Nations agencies and would coordinate such other international activities in this field as it might be found useful to leave within the competence of specialized international institutions." Such a wholesale transition to a new, comprehensive system is, at present, impractical. The Commission's position of developing new administrative structures only in new areas and expanding on past developments in areas such as fisheries regulation is less cumbersome and meets the needs of the day without complicating the possibility of acceptance by including unnecessary innovations.

The Commission has chosen a "first-come, first-registered" procedure for allocating rights under its proposed regime. It could have chosen any of several other ways, the most significant of which is allocation on the basis of the highest bid. This latter means would insure that the most efficient producers were awarded the rights to explore and exploit the deep sea, but it is subject to the criticism that the poorer nations would be permanently barred from participation in underseas development. However, smaller nations would not have much better hopes under a first-come system when they would still have to

120. Ibid.
121. Christy, supra note 109, at 242.
122. Ibid.
123. Pardo, supra note 106, at 227.
124. Ibid.
125. Commission's Report, supra note 9, at 104.
satisfy the Registry Authority as to their technical and financial competence. F. T. Christy has noted that the first-come approach, "provides no method for choosing among claimants for the same or overlapping areas. And in addition, it is likely to stimulate a headlong race among nations."126 Since the exploiters will be required to pay a fee in any case, Mr. Christy sees an auction as the "most rational and least arbitrary" means for allocating claims.127 Such would be the case if the value of the claims or the right to explore could be ascertained beforehand, this is unlikely, however, since so little is known at the present time concerning the economics of deep sea exploitation. With no basis for determining the value of a claim, bidding would be uneducated and haphazard. In view of this situation, the first-come, first-registered approach seems to best satisfy present realities, especially in the area of providing incentives to move into the deep sea.

In developing nearby continental shelf areas, the United States has established a policy framework to govern offshore exploration and exploitation which seems to satisfy national needs while encouraging such activities on the part of individual entrepreneurs. Such being the case, it has been observed that "[n]ational policy is a base point for our approach to international action in this area."128 Perhaps in tacit recognition of this viewpoint, the Commission has recommended that only a state or an association of states will be eligible to register a claim on behalf of a business entity.129 Such a provision makes the Commission's recommendation, like the similarly operating Pell proposal, "predominately national, with certain transnational overtones."130 The Ocean Agency created by the World Peace Through Law Compact would be a more supranational body than the Registry Authority because it would exercise its authority directly on the individuals and private entities applying for licenses, rather than through the applicant's state.131 Christy's proposed regime would apparently operate in the same manner. Such supranational proposals, it is submitted, tend to move in the direction of world government without recognizing the practicalities of present-day commercial operations. "A more conservative . . . arrangement would recognize that, for the present, decision centers for resource allocation and management are in national capitals. It would also recognize that in market economies industrial and food-processing firms could

127. Ibid.
129. Commission's Report, supra note 9, at 148.
be encouraged by national authorities to develop the oceans in a way that might be unlikely for the time being with . . . international jurisdiction.”

**The International Fund**

Another potentially controversial aspect of the Commission’s recommended regime is the notion of the International Fund. Recommending a first-come, first-registered doctrine for the proposed regime might doom the whole plan to failure for the same reasons that the occupation and flag-state approaches are unacceptable, viz., the underdeveloped countries would not approve such a regime because they would be frozen out of participation therein. The intermediate zone concept takes the initial sting out of the proposal by guaranteeing a large area for the exclusive exploitation of the coastal state. But what of the underdeveloped non-coastal states and those with minimal coast lines? These states are includible in the plan for development of the seas’ resources by means of the International Fund. Each state registering a claim with the International Registry Authority would pay a fee to cover the costs of the system and in addition will be required to pay a portion of the value of production in any exploited area into an International Fund. The Commission’s Report states that these royalties would be “expended for such purposes as financing marine scientific activity and resources exploration and development, particularly food-from-the-sea programs, and aiding the developing countries through the World Bank U.N. Development Program and other international development agencies.”

The Commission’s purpose in formulating the International Fund is clearly an attempt to gain international approval and acceptance of its legal regime through financial compensation. The Report states: “The Commission’s proposals for an International Fund do not constitute just another way for the rich nations to aid the poor nations. They are intended to compensate the common owners of the mineral resources of the deep seas by using the ‘economic rent’ for purposes that the international community agrees will promote the common welfare.” Senator Pell’s proposed treaty was silent on the question of revenues but other commentators see no significant objection to the concept of

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134. *Commission’s Report, supra* note 9, at 149.
137. *Ibid.* But see the statement of Clark Eichelberger before the Foreign Relations Committee of the Senate: “Accompanying the licensing feature of which Senator Pell spoke, there should be a revenue plan which I hope he will incorporate in his treaty. The fees from the licensing feature might be used to strengthen the U.N., and particularly to be used in a development fund for the developing peoples.” *Senate Hearings, supra* note 30, at 43. See also, Remarks of the Honorable Claiborne Pell in *Proc. of the Am. Soc’y*
allocating certain royalty payments for international purposes.\textsuperscript{138} Disagreement arises when the details of amount, administration, and disposition of revenues are considered. While outlining revenue disposition under a possible United Nations ocean regime, Seymour S. Bernfeld observed that "[e]ven if the United Nations Secretariat were to be allowed to retain only enough to pay the cost of administering the system or even the costs of the UN itself, the ensuing cacophony among the family of nations over the division of spoils would put to shame the heavenly philosophical chaos caused among Anatole France's saints and angels [when forced to consider] the effect of baptism on birds."\textsuperscript{139}

Louis Henkin views payment of deep-ocean royalties to the United Nations more pragmatically. He finds it unlikely that the nations of the world "will agree to give to the United Nations amounts that would make it largely independent of member contributions. Some countries, notably the United States which bears the major burden of financing the United Nations, recognize that such burden also makes the United Nations dependent on them and gives them corresponding power and authority in the Organization. They would be unwilling to give to majorities the means to go off on what they consider frolics, or worse."\textsuperscript{140} The Commission has recognized the validity of these observations and has concluded that "[t]he proceeds from these payments should not be expended for general purposes of the United Nations."\textsuperscript{141}

In his discussion of possible alternative regimes for the deep sea, F.T. Christy, noted that an international authority, composed of a board weighted in favor of the exploiting nations, could effectively regulate ocean exploitation; however, "[t]he revenues above the costs of administration should be turned over to another agency for distribution . . . . [T]he function of management should be separated from the function of revenue distribution."\textsuperscript{142} Several considerations support such a dichotomy of functions. While a registry board


\textsuperscript{139} Bernfeld, Developing the Resources of the Sea—Security of Investment, 2 Int'l. L. 67, 74 (1967).

\textsuperscript{140} Henkin, supra note 138, at 92-93.

\textsuperscript{141} Commission's Report, supra note 9, at 149.

\textsuperscript{142} Christy, supra note 110, at 240.
formed on the “multiple principle” of representation is necessary to guarantee the major exploiters that their interests in deep sea resources allocation and administration will be safeguarded, no such weighted influence should be necessary in the area of revenue distribution. The many small nations of the world which would hope to benefit from these revenues might demand an equal voice in their application.\textsuperscript{143} Also, a board assembled on the basis of technical expertise in resource management cannot be expected to be equally adept in the intricacies of financial administration. Lastly, since the Registry Authority will be required to set the royalty rates,\textsuperscript{144} such a combination of functions might impose a conflict of interest on it. If charged with the distribution of revenues for community-approved purposes, the Authority might assess the needs of its planned programs and charge royalties sufficient to fill out its budget. On the other hand, being responsible for the efficient and economical exploitation of ocean resources, the Authority, in order to encourage exploitation, might be required to charge minimal royalties which would produce small sums for distribution.

It can be expected that coastal states which do not plan exploitation programs of their own in the near future will be amenable to the proposed regime because of their indirect reception of royalties through the International Fund and their direct reception of royalties from foreign entrepreneurs who wish to exploit that country’s Intermediate Zone. In the Intermediate Zone the exploiter will be required to pay the normal royalty to the International Fund. In addition, it can be expected that the coastal nation would not consent to register a claim on behalf on an entrepreneur without demanding some consideration for the service, probably an additional royalty. It is submitted that such a combination of royalties, varying from country to country, could lead to inefficient and uneconomical exploitation in these zones. Adjacent countries, having similar exploitable resources, might have to dicker with a foreign exploiter to the extent that the revenue returned to the state would be minimal. A country having an exclusive mineral deposit might charge an excessive royalty, thereby precluding efficient exploitation. A suggestion by Mr. Christy seems a better solution to the problem of providing adequate compensation to coastal coun-

\textsuperscript{143} The demand for an equal voice in the distribution of these revenues when no such equal voice exists in, e.g., the World Bank, can be explained by noting that the World Bank administration is controlled according to the amount of capital contribution by the various members while the contribution of revenues into the International Fund is “intended to compensate the common owners of the mineral resources of the deep seas by using the ‘economic rent’ for purposes that the international community agrees will promote the common welfare.” (Emphasis added.) COMMISSION’S REPORT, supra note 9, at 149.

\textsuperscript{144} “The rates of payment shall be fixed for the different minerals by the Registry Authority and shall be uniform for all States.” REPORT OF THE INTERNATIONAL PANEL, supra note 33, at VIII-38.
tries for exploitation close to their shores. While not having the Intermediate Zone concept *per se* in mind, Mr. Christy has recommended that “the royalties paid to the international authority would be split between that authority and the adjacent state. The closer to shore, the higher the percentage received by the state; and the farther from shore, the greater the percentage to the authority. This would permit U.S. firms to operate throughout the world's oceans under a single set of rules. Problems of expropriation and inflated royalty rates would be greatly diminished.”

The coastal state would retain the initial prerogative of refusing to register a particular claim, thereby precluding unwanted foreign installations near its shores.

**Conclusion**

The President's Commission has recommended an integrated legal framework to govern mineral exploitation in the deep seas. The recommendations are specific in order that a critical examination of its proposals could be made. This Comment has attempted such an examination, in the course of which it has been shown that the Commission was aware of the major proposals in this area and has drawn upon them to construct what is essentially a compromise regime. Although many times a compromise proposal pleases none of the interested parties, the Commission's recommendation has a better chance of acceptance because not many rights have yet vested in the deep sea areas. In order to maintain this advantage, international negotiation should begin as soon as possible. The author recognizes that the Commission's recommendations have not, as yet, been accepted as the position of the U.S. government, but it is hoped that some decision will be made before events outpace the planning of a regime to govern those events.

The Commission's recommendations have been formulated to facilitate the commercial exploitation of the seas. It must be recognized, however, that at least for the present, military uses predominate over economic uses of the deep ocean. Where most of the other proposals for deep sea administration have

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146. "We also should like to stress that our major recommendations are interrelated. Rejection of any one of these recommendations would raise serious questions in the minds of the Commission as to the advisability of continuing with the others.” *Commission's Report, supra* note 9, at 147.
147. *Ibid*.
148. In a State Department memorandum circulated on January 14, 1969, the Commission's Report was neither adopted nor rejected. The memorandum concluded: "It has . . . been agreed with the Executive Branch that at the present time the US should take no position as to the outer boundary of the continental shelf or the regime for the area beyond."
been based on the desire to demilitarize the seabed, the Commission has attempted to design a framework without incorporating defense considerations in its structure. Such an approach eliminates many of the quarrels over the meaning of words such as "peaceful," "military" and the like which could delay acceptance of the regime. It has been pointed out by Assistant Secretary of the Navy Robert Frosch that "[m]ineral resources and arms control do not necessarily travel hand-in-hand." By recognizing this distinction, the Commission may succeed in providing the first comprehensive regime for the deep ocean floor that will be acceptable to a majority of nations. The establishment of a definitive regime joined with the United States proposed "International Decade of Ocean Exploration" should help all nations to soon realize the promise of the ocean:

The time is ripe to extend our efforts seaward. The technology is under accelerated development. The task is formidable, but the challenge of the ocean frontier will inspire all who probe its secrets.

The ocean can tie the nations of the world together more than it separates them geographically. The sciences of the ocean are universal. Now all nations can unite in mobilizing their energies to promote the peaceful and cooperative use of the ocean so that its bounty may serve the needs of all mankind.

Edward J. Dempsey

150. See, e.g., Pardo, supra note 106, at 225; Proposed Treaty Governing the Exploration and Use of the Ocean Bed, supra note 79, at 10-11; Senate Hearings, supra note 30, at 6.

151. Frosch, Marine Mineral Resources: National Security and National Jurisdiction, Naval War College Rev., October 1968, at 58.
