THE 1973 CONFERENCE ON THE LAW OF THE SEA IN THE LIGHT OF CURRENT TRENDS IN STATE SEABED PRACTICE

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I. *The Seabed Committee and the General Assembly.*

The decision of the General Assembly of the United Nations to convene in 1973 a Conference on the Law of the Sea to deal with a seabed regime and a broad range of related issues[1] sets an early date for the conclusion of a seabed treaty[2] and invites a review of progress to date with an examination of some current problems of state seabed practice.

The progress of the Seabed Committee and the General Assembly has been variously viewed by interested parties. The extremely critical opinion of the hard minerals industry[3] may be contrasted with the opinion of the Secretary-General of the United Nations that the General Assembly's Declaration of the seas and oceans to be the common heritage of mankind was a "great historical deci-

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[1] Res. 2750 C/XXV.

[2] It may be noted that the General Assembly was "convinced that a new conference would have to be carefully prepared to ensure its success" and decided further to review progress at its twenty-sixth and twenty-seventh sessions. If the General Assembly determines at its twenty-seventh session that progress of the preparatory work is insufficient it "may decide to postpone the Conference". *Ibid.* It would therefore appear that the conference will definitely be held, subject to a possible postponement. For present purposes it will be presumed that it will be convened in 1973 as planned.

[3] "Odysseus was appointed the task of walking inland with a ship's oar over his shoulder until he found inhabitants so ignorant of the sea as to mistake the oar for a threshing tool. At this point he was to make sacrifice to Poseidon, God of the Sea, in the hope that this act would calm the godly anger and moderate the winds and waves at sea. Today, some three thousand years later, descendants of these inhabitants, still ignorant of the ways of the sea and the men who sail thereon, are reversing the journey to troop to the shores of the East River; there to generate great winds and waves in an attempt to inhibit the acquisition of knowledge and values from the sea." J. E. Flipse and R. J. Greenwald, The Marine Operator's Role in the Rational Formulation of Principles of Law Governing Mining Activities in "Shared" Ocean Space, Marine Technology Society (1970).

sion".[4] It would seem that some advance has indeed taken place in seabed law since the question was first raised by Malta.[5]

Before the General Assembly Resolutions of December 1970 relatively little progress had been made. The General Assembly had requested the Secretary-General to ascertain Members' views on the desirability of convening a comprehensive conference at an early date.[6] The form of this request "implied the desired answer"[7] and the answer was that a majority of the General Assembly desired a comprehensive conference.[8] But the opposition of the Soviet Union, and the desire of the United Kingdom and the United States to drastically limit the issues[9] presaged a breakdown similar to that of 1960 in the light of the reactions of leading supporters of a comprehensive conference.[10]

The most significant attempt to force the pace of discussion before December 1970 was the Moratorium Resolution.[11] Pending the establishment of an international regime, states and persons, physical or juridical, were bound to refrain from all activities of exploitation of the resources of the area of the seabed and ocean floor and the sub-soil thereof beyond the limits of national jurisdiction. No claim to any part of that area or its resources should be recognized. On one view this resolution was " of political rather than of juridical interest" as a standard for limiting national jurisdiction was not prescribed[12] and for this reason was held by Malta to be meaningless,[13] although it has been suggested that the resolution was adopted in the context of the 200 metre present exploitability limit.[14]

In particular opposition to the resolution it was argued that such a resolution is not within article 13(1)(a) of the Charter;

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[4] Press Release SB/44, March 15th, 1971.

[5] A/6695, August 18th, 1967.

[6] Res. 2574 A/XXIV.

[7] L. Henkin, The General Assembly and the Sea, in L. M. Alexander (ed.), The Law of the Sea: The United Nations and Ocean Management (1971), pp. 2, 14.

[8] A/7925, July 17th, 1971.

[9] *Ibid.*, p. 38 (U.S.S.R.), p. 39 (U.K.) and pp. 40-42 (U.S.A.).

[10] ". . . the Peruvian Government expressed opposition when approached by the Government of the United States of America and the Union of Soviet Socialist Republics concerning the convening of an international conference to adopt three draft articles . . . this plan was undesirable since it involved establishing limits and conditions which were unsatisfactory to a great many countries and which were taken in isolation from the remaining sections of the law of the sea." *Ibid.*, p. 30.

[11] Res. 2574 D/XXIV.

[12] International Law Association, Deep Sea Mining-Report of the Committee (1970), p. 11.

[13] F. M. Auburn, Deep Sea Mining (1971), 15 Archiv des Völkerrechts 93.

[14] United Nations Committee of the World Peace through Law Center, Draft Treaty Covering the Exploration and Exploitation of the Ocean Bed (Revision No. 1) (1970), p. 3.

that it contravenes the Convention on the High Seas in prohibiting activity lawful under that convention, and that the General Assembly has no legislative power.[15] The view of the State Department was that the General Assembly was legally competent to adopt the resolution under articles 10, 13 and 55 of the Charter. However the resolution, being recommendatory, did not legally bind the United States. The State Department did not anticipate any efforts to discourage United States nationals from continuing their exploration plans for deep seabed minerals such as manganese nodules.[16]

The only members of the United Nations who might in fact be governed by the moratorium voted against it and indicated that they would not be bound by it.[17] It is not surprising that the moratorium was not regarded as a serious threat to progress in the solution of the technical and economic problems of ocean mining.[18]

If, therefore, the only effect of the Moratorium Resolution may be to spur developed coastal states to claim wide national jurisdiction so that they can exploit "lawfully" within it,[19] why then did the developing states force it through against the bitter opposition of the developed states? (Of the sixty-two states voting in favour of the Resolution only two, Finland and Sweden, were developed states[20] and these two are shelf-locked.) It has been suggested that this resolution is the "tip of an iceberg" expressing the wish to prevent uncontrolled exploitation whilst concealing beneath the surface "the intense but totally unsuccessful negotiations about limits".[21] Until a decision is reached on limits it is difficult to set up a regime. But in December 1969 there was no indication of the views of the leading power in seabed technology, the United States.

It has been suggested elsewhere that President Nixon's announcement of United States ocean policy of May 23rd, 1970[22] may be directly traced to the Moratorium Resolution and to the Canadian Arctic Waters Pollution Prevention and Territorial Sea and Fishing Zones Amendment Bills introduced in April 1970.[23]

[15] Northcutt Ely, letter to Sen. Lee Metcalf, Outer Continental Shelf, Hearings before the Special Sub-committee on Outer Continental Shelf of the Committee on Interior and Insular Affairs, U.S. Sen. 91st Cong., 1st and 2nd Sess. (1970), pp. 31-39.

[16] John R. Stevenson, letter to Sen. Lee Metcalf, *ibid.*, pp. 210-211.

[17] Henkin, *op. cit.*, footnote 7, p. 7.

[18] J. E. Flipse, Ocean Mining Stimulated by Economic Forces, Undersea Technology (Jan. 1970), pp. 45, 46.

[19] Henkin, *op. cit.*, footnote 7, p. 15.

[20] Auburn, *op. cit.*, footnote 13.

[21] N. C. Fleming, Rat-race for the Ocean Floor? (1970), 3 Hydrospace 40, at p. 41.

[22] United States Mission to the United Nations, Press Release USUN-70(70), May 25th, 1970.

[23] F. M. Auburn, The International Seabed Area (1971), 20 Int. & Comp. L.Q. 173, at pp. 176-177.

Whilst the United States Draft Convention left the precise seaward boundary point open,[24] the Draft would set that boundary at a point beyond the base of the continental slope where the downward inclination of the seabed declines to a gradient to be defined.[25] In other words the United States, despite its reservation on the Draft's provisions[26] which may be traced to the Senate, rather than the State Department, now regards the seaward boundary question as a matter of deciding upon a suitable point on or beyond the continental rise.

In view of the slight progress made previously, the resolutions of December 1970 represented a significant step forward. The Secretary-General was requested to co-operate with the United Nations C.T.A.D. and other United Nations Organizations to identify problems of developing countries arising from the production of certain minerals beyond the limits of national jurisdiction, study them in the light of world prices, proposing effective solutions, submit the report to the Seabed Committee, and keep the question under review.[27] However it is suggested that there are only a few states for whom manganese nodule minerals export is significant, and that certain seabed revenues could be specifically allocated to ameliorate such hardships.[28] Therefore if manganese nodules are the sole problem in this area there would be relatively little difficulty. But if the continental shelf seaward boundary is drawn at a very much shallower water depth than the abyssal plain—continental rise boundary, most serious future questions of petroleum and natural gas markets will have to be considered.

The problems of land-locked countries have also been taken into account. According to one recent calculation there were, in 1970, 141 independent states of whom twenty-nine are land-locked, twenty-two in effect shelf-locked and fourteen have narrow shelves with a coast line of less than 200 miles in length. Therefore close to half of the independent states of the world have a substantial interest in supporting an international regime for as broad an area as possible since they have little or no continental margin of their own.[29] Whilst no automatic voting pattern can be inferred

[24] A/AC 138/25, Art. 26, August 3rd, 1970.

[25] *Ibid.*

[26] "The draft Convention. . . do[es] not necessarily represent the definitive views of the United States Government."

[27] Res. 2750 A/XXV.

[28] F. T. Christy, Jr., Economic Problems and Prospects for Exploitation of the Resources of the Seabed and Subsoil, Council of Europe, Consultative Assembly, Symposium on the Exploration and Exploitation of the Seabed and its Subsoil (1970), p. 23. The Secretary-General's report stated that "[t]he relative importance to developing countries of exports of [cobalt, nickel and manganese] indicates that a possible adverse impact on these markets would not be catastrophically disruptive to the economies of the countries concerned." A/AC/138/36, May 28th, 1971, p.65.

[29] L. M. Alexander, Outer Continental Shelf, Hearings before the

from these figures[30] it is clear that they have a substantial vested interest in opposing any seabed regime which does not offer them benefits.[31] The General Assembly therefore requested the Secretary-General to prepare a report on the special problems of land-locked countries in relation to the seabed for submission to the Seabed Committee.[32] It will be noted that this resolution did not encompass shelf-locked and narrow-shelf countries, and this omission will become more important the deeper the continental shelf-seabed boundary is fixed.

The final portion of this resolution included the decision to convene the 1973 Conference.[33] It further decided to enlarge the Seabed Committee by forty-four members.[34] This last decision was the outcome of long and patient negotiations over weeks and even months[35] which might have been better spent on framing a seabed regime than on interminable wrangling over seats on a Committee. The enlarged Committee was instructed to hold two meetings in 1971 to prepare a draft seabed treaty on the basis of the Declaration[36] and also to prepare a comprehensive list of law of the sea issues to be dealt with at the Conference. Taking into account that the breadth of the territorial sea, which is merely one of the relevant issues, has not been settled by three Law of the Sea Conferences, the Seabed Committee's mandate must be regarded as somewhat ambitious. In view of the 1960 Conference it might be asked why part of the task was not entrusted to the International Law Commission.[37] On one opinion "the Law of the Sea is entirely too important to the welfare of society to be left in the hands of lawyers".[38] More substantially perhaps, there is insufficient time for such studies as those undertaken by the International Law Commission in view of the rising tide of national claims of various types.[39] The seabed and the breadth of the territorial sea are only two of the important questions which will no doubt demand trade-offs and package deals for which the International Law Commission is hardly the most suitable body. The seabed, although arising

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Special Subcommittee on Outer Continental Shelf of the Committee on Interior and Insular Affairs, Part 2, U.S. Sen., 91st Cong. 2nd Sess. (1970), pp. 483, 484.

[30] For instance, Austria, Czechoslovakia, Luxembourg and Mongolia voted against the Moratorium Resolution.

[31] See for instance statement of Mr. Prohaska (Austria), A/AC.138 SR.38, November 13th, 1970, p. 122.

[32] Res. 2750 B/XXV. For the report, see A/AC138/37, June 11th, 1971

[33] Discussed above, see text for footnote 2.

[34] Res. 2750 C/XXV.

[35] Mr. Solomon (Trinidad and Tobago), A/PV.1393, December 18th, 1970, p. 63.

[36] Discussed *infra,* see text footnote 40.

[37] As suggested by China, A7925, July 17th, 1970, p. 11.

[38] W. M. Chapman, *op. cit.,* footnote 15, p. 225.

[39] Discussed in detail *infra,* see text for footnote 49 *et seq.*

in a legal context, is to a large extent a political question demanding political answers.

Such political overtones are most prominent in examining the Declaration of December 1970.[40] The seabed, ocean floor and subsoil beyond the limits of national jurisdiction, and their resources, are declared to be the common heritage of mankind. The area shall not be subject to appropriation by any means by states or persons, natural or juridical, and no state shall claim or exercise sovereignty or sovereign rights over any part of the area. Nor shall rights be acquired which are incompatible with the international regime to be established or the principles of the Declaration.

The Declaration was adopted by 108 votes in favour, none against and fourteen abstentions. It is not possible to undertake a study of the effect of the General Assembly Resolutions in this context. But it is suggested that the Declaration is best regarded as a set of political statements which may well be the foundation of an international law of the seabed. The much disputed concept of "common heritage of mankind", may be taken together with "for the benefit of mankind" in regard to exploration and exploitation. "Common heritage of mankind", in the original Maltese proposal[41] meant non-appropriation, exclusively peaceful use, control by an international agency as "trustee" to regulate, supervise and control activities and use of the net financial benefits "primarily to promote the development of poor countries".[42] Initially therefore the concept of common heritage of mankind bore definite connotations.[43] But since 1967 the concept has been adopted by states holding opposing views as to its content, as may be shown by an examination of the views of the states voting in favour of the 1970 Declaration. Attempts to define the concept at a high-level of generality can hardly be described as successful. For instance it has been suggested that there are three basic elements (a) non-appropriation by any (b) administration by all, and (c) equitable and progressive distribution of benefits to all.[44] Yet it is submitted that the United States Draft Convention cannot be taken to support (b) and (c). On the other hand "common heritage of mankind" is held not to refer to any existing legal conception, but rather to express a certain philosophy.[45] With such a wide range of disagreement on the content of the concept it is difficult to argue that it has yet acquired any legal definition.

[40] Res.2749/XXV.

[41] *Supra*, footnote 5.

[42] *Ibid.*

[43] J. Andrassy, International Law and the Resources of the Sea (1970), pp.154-155.

[44] L. P. Ballah, Activities of the United Nations General Assembly since 1966 Relating to the Seabed and Ocean Floor, in Alexander (ed.), *op. cit.*, footnote 7, pp. 29, 31.

[45] International Law Association, *op. cit.*, footnote 12, p. 16.

On a more concrete level it would seem that there is very wide support for the view that the seabed *and its resources* are not subject to national appropriation. The national lakes view is therefore rejected, but the "newly matured norm" is hardly more satisfactory than the old.[46] It is notable that the Declaration does not incorporate the Moratorium Resolution, either directly or by inference. Although it has been pointed out that the Declaration was intended to be neutral on this point[47] it is difficult to view the omission of so controversial a provision otherwise than as a clear indication that the Moratorium Resolution can no longer be held to bind the General Assembly either in a "quasi-legislative" capacity or politically.

Despite the lack of definition of the boundary of the seabed, the Declaration does present a real problem for manganese nodule miners. Assuming one current proposal that the boundary should be set at approximately 2,500 metres, such activities are threatened with the section of the Declaration forbidding any person from exercising or acquiring rights to seabed resources incompatible with the future international regime. If the seabed is to assume any future legal form then it may be assumed that it will at least cover the depths of 12,000 feet and more in which promising nodule deposits are found. There is therefore good reason for the hard minerals industry to demand a grandfather clause from the United States government.

The achievements of the Seabed Committee and the General Assembly so far cannot be dismissed as negligible. From the Resolution and Declaration of December 1970 it would appear that several important political points have been made. The seabed debate remains one of the few major political issues centred on the United Nations. There is an area of the ocean bed beyond the continental shelf which is not capable of national appropriation. Exploitation shall benefit, *inter alia,* land-locked and developing countries. A seabed treaty is to be framed incorporating an international regime. It may be noted that the reservation of the seabed "for peaceful purposes" is not regarded as an achievement in this and similar contexts due to the extremely wide construction placed on such terms by certain states.[48]

II. *Continental Shelf Delimitations.*

It has been suggested that the outer limit of the continental shelf should be set at 200 miles or 2,500 metres, whichever gives the

[46] E. D. Brown, The 1973 Conference on the Law of the Sea: The Consequences of Failure to Agree, Sixth Law of the Sea Institute Conference (1971), p. 13.

[47] *Ibid.,* p. 36.

[48] E. D. Brown, Arms Control in Hydrospace: Legal Aspects (1971), p. 46.

greater area because, in the light of the ambiguity of the present law, state practice and the *North Sea Continental Shelf* cases[49] there will be many states unwilling to accept a definition which denies them the right to extend their shelves out to the edge of the continental terrace if and when technology permits of resource exploitation out to such limits.[50] In discussing the expansion of state claims heavy emphasis is usually placed upon the South American 200 mile zones[51] and on tabulations of the formal claims made by states in which such extensive claims figure largely.[52] But it is not the 200 mile zones which now threaten to overtake the projected seabed regime. Whilst the United States seems to have difficulty accepting the possibility that it may have already lost the 200-mile dispute,[53] it is not only outside observers who hold this to be a hopeless cause.[54] The present and urgent threat facing the planners of the 1973 Conference is to be found in expanding claims to sovereign rights and jurisdiction over the seabed in various forms.

An example of the most obvious type of claim over large seabed areas is the North Sea whose division was finalised in January 1971 by an agreement between West Germany, Holland and Denmark.[55] The participation of the coastal states in this delimitation which involves the indirect consent of the other coastal states in the form of acceptance of the allotted boundaries, seems to assume the validity of Norway's claim over and beyond the Norwegian Trough.[56] The division of the North Sea might point to three types of expanding claims (a) over similar trenches and troughs, (b)

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[49] 1969 I.C.J. 4.

[50] E. D. Brown, Our Nation and the Sea: A Comment on the Proposed Legal-Political Framework for the Development of Submarine Mineral Resources, in L. M. Alexander (ed.), The Law of the Sea: National Policy Recommendations (1970), pp. 2, 43-44.

[51] See for example, views of L. Ratiner, Sixth Law of the Sea Institute Conference (1971).

[52] *E.g.* Brown, *op cit.*, footnote 46, pp. 26-29.

[53] D. C. Loring, The United States-Peruvian "Fisheries" Dispute (1971), 23 Stanford L.Rev. 391, at p. 452.

[54] "A sound case could also be made that the United States has de facto honored the Peruvian, Ecuadorean and Chilean claim for a 200 mile limit. . . . Seizures are continuing and in January of 1971, the fines and licences imposed on U.S. flag ships by Ecuador alone was equal to the integrated value of all prior fines (830,000 U.S. dollars). From the point of view of these countries, it is hard to believe that 200 mile sovereignty has not been effectively asserted." J. Craven, United States Options in the Event of Non-Agreement, Sixth Law of the Sea Institute Conference (1971), pp. 3, 5.

[55] For the Dutch-West German agreement, see "Verdrag tussen het Koninkrijk der Nederlanden en de Bondsrepubliek Duitsland inzake de begrenzing van het continental plat onder de Noordzee, met bijlagen" (1971), 1 Tractatenblad van het Koninkrijk der Nederlanden.

[56] On which see R. Young, Offshore Claims and Problems in the North Sea (1965), 59 Am.J.Int.L. 505, at p. 511.

over areas beyond similar depressions, such as the Flemish Cap off the Grand Banks, and (c) over semi-enclosed seas as a special type of continental shelf. Such considerations have already been extended, in argument, to the Red Sea[57] and the other categories are equally applicable.

The *North Sea Continental Shelf* cases may be discussed at two levels. Firstly, for their significance *inter partes*.[58] Secondly, the cases can be utilized to support the view that the continental shelf extends, at least, to cover the continental slope.[59] The Persian Gulf has been claimed by coastal states,[60] and it is suggested that the final delimitation of boundaries in other enclosed and semi-enclosed seas such as the Black Sea and the Baltic is inevitable. The recent discoveries of vast offshore oil deposits in the Sea of Japan, and the commencement of exploration there[61] and in the East China Sea will demand a formal demarcation of boundaries, or multi-national combined exploration. In the South China Sea the question of sovereignty over the Spratly Islands has been re-opened presumably with a view to petroleum exploration. Taken with the dispute over the Senkaku Islands this would suggest that the dormant question of disputed sovereignty over islands, particularly in the Pacific, will become a common feature of international altercation.

Discussion and negotiation on the delimitation of continental shelf boundaries is proceeding apace throughout the world. Australia and Indonesia have commenced delimitation of their boundary.[62] Discussions have been initiated between Canada and the United States on unspecified lateral continental shelf boundaries.[63] France and Canada have commenced negotiations over the conti-

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[57] W. L. Griffin, International Legal Rights to Minerals in the Red Sea Deeps, in E. T. Degens and D. A. Ross (eds), Hot Brines and Recent Heavy Metal Deposits in the Red Sea (1969), pp. 550, 555. The Red Sea is discussed in detail *infra*, see text to footnote 102.

[58] "The Court's intervention is . . . seen as an integral part of the discussions between the parties, the Court's task being to bring the parties back to the negotiating table." F. M. Auburn, The North Sea Continental Shelf Boundary Settlement (1971), p. 2.

[59] R. Y. Jennings, The Limits of Continental Shelf Jurisdiction: Some Possible Implications of the North Sea Case Judgment (1969), 18 Int. & Comp. L.Q. 819, at p. 830. Professor Jennings would appear to reserve his opinion on the effects of the cases on the continental rise: ". . . if the principles governing the slope seem reasonably clear, this is not so in regard to the rise. . . . It [appears]. . . . that the law has no clear answer to this question at present." *Ibid.*

[60] Persian Gulf Still a Favourite Target, Ocean Industry, Jan. 1969, at p. 14.

[61] Testing-Three Oil Firms to Start Offshore Drillings (1971), 17 Japan Information Bulletin 6.

[62] (1971), 10 I.L.M. 830.

[63] Hearings, *op. cit.*, footnote 29, at p. 469.

nental shelf boundaries of St. Pierre et Miquelon.[64] Denmark has granted concessions in Davis Strait, Greenland, some well below the 200 metre mark. Two of the concessions are expressly given to the "limit of the Danish part of the continental shelf".[65] Negotiations between Canada and Denmark on delimitation have started recently.[66] Norway and the Soviet Union have commenced preliminary talks on the delimitation of the Barents Sea continental shelf.[67] These examples will serve to indicate the pace at which offshore areas, frequently at great depths, are being divided up among coastal states, often in very hostile environments, such as the Arctic.

III. *State Practice in Municipal Law.*

A review of the practice of states in granting exploration licences and controlling seabed activities reveals a rapid extension of the boundaries of continental shelves, or areas of offshore jurisdiction, as an examination of recent trends in the United States, Canada, New Zealand and Australia will demonstrate.

In 1961 the United States Department of the Interior leased phosphate deposits forty miles seaward of Southern California in waters from 240 to 4,000 feet deep under the Outer Continental Shelf Lands Act and in 1964 asserted jurisdiction over and leased to Shell Oil three oil and gas blocks in the Tillamook area off Oregon in 1,200 to 1,800 feet of water. In 1965 the Department issued a permit to Shell and others to conduct a core drilling project in the Gulf of Mexico in waters reaching a depth of 3,500 feet. In 1967 similar permits were granted to Humble Oil and Refining to drill twenty-one core holes beneath the floor of the Atlantic Ocean in water depths of 650 to 5,000 feet up to 300 miles offshore.[68] Humble Oil has recently drilled a well in 1,497 feet of water and is developing a submerged production system which will ultimately permit production at a water depth of 2,000 feet.[69] According to the Continental Shelf Convention the mere issuance of leases would not necessarily extend the shelf boundary as a lease alone does not demonstrate exploitability. But it would appear that

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[64] D. G. Crosby, Mineral Resources Activities in the Canadian Offshore (1970), 6 Maritime Sediments 30, at p. 32.

[65] Concession 19, Tenneco Oil and Minerals Ltd., and Concession 20, Compagnie Française des Pétroles, Geological Survey of Greenland, Specifications of Concessions and Prospecting Licences Granted by the Ministry for Greenland (1971), p. 4.

[66] Letter from O. Jensen, Ministry for Greenland, June 10th, 1971.

[67] Press Release, Royal Ministry of Foreign Affairs, Oslo, October 6th, 1970.

[68] R. B. Krueger, The Development and Administration of the Outer Continental Shelf Lands of the United States (1968), 14th Annual, Rocky Mountain Mineral Law Institute 643, at pp. 662-664.

[69] Producing the Big Deep's Oil (1971), 10 The Humble Way 24, at pp. 25-26.

in fact such leasing does constitute a claim to an area as part of the shelf.[70] The Department of the Interior has taken the view that the submerged lands included in the leases it has issued under the Outer Continental Shelf Act are unquestionably within those areas over which the United States has exclusive natural resource jurisdiction under the Convention. Such leases, the Department has stated, give vested property rights which "would remain unaffected by subsequent national or international policy on the question".[71] The Department has issued leasing maps indicating an intent to assume jurisdiction over the ocean bottom off the Southern California coast in water depths as great as 6,000 feet.[72]

Of particular interest is the Department's assertion of jurisdiction over projects announced by businessmen to create their own island countries on the Cortes Bank by filling operations. The Cortes Bank is situated approximately 120 miles off San Diego, is under less than fifty feet of water in some points and is separated from the coast by ocean bed going down to 6,000 feet.[73] The Secretary of the Army, acting under section 4(f) of the Outer Continental Shelf Lands Act to "prevent obstruction to navigation [as to] artificial islands and fixed structures located on the Outer Continental Shelf" advised the businessmen that United States' consent was required, relying on an opinion given by the Department of the Interior's Solicitor to the effect that Cortes Bank is within the Convention's definition of the continental shelf.[74] This attempt to found the new state of Abalonia by sinking the S.S. Jalisco as the basis for a "tax-free sovereign" processing plant failed.[75] The Cortes Bank is a most interesting case because of its location nine miles south of an extension of the maritime boundary separating the United States and Mexico, and because the Cortes Development Corporation has planned an island state there, under Project Taluga.[76]

In a recent case before the Fifth Circuit of the United States

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[70] W. T. Burke, Hearings, *op. cit.*, footnote 15, at p. 172.

[71] Department of the Interior, Petroleum and Sulfur on the U.S. Continental Shelf (Dec. 1969), p. 6.

[72] C. F. Luce, Under Secretary of the Department, quoted in National Petroleum Council, Petroleum Resources under the Ocean Floor (1969), p. 65.

[73] R. B. Krueger, The State of International Law as Applied to Ocean Mining and an Examination of the Offshore Mining Laws of Selected Nations, Offshore Technology Conference Paper No.1067 (1969), pp. 333, 337.

[74] *Ibid.*, p. 362.

[75] D. P. Stang, Individual's right to question United States Administrative Jurisdiction over Continental Shelf Areas, in L. M. Alexander (ed.), The Law of the Sea — The Future of the Sea's Resources (1968), pp. 86, 87.

[76] A. T. Ressa, A Plan for an Island State, in E. H. Burnell and P. von Simson (eds), Ocean Enterprises (1970), 11(4) Center Occasional Papers 50.

Court of Appeals, this question of island states was examined at length. Ray and Acme Inc., wished to found a new sovereign state, Grand Capri Republic on Triumph and Long Reefs outside United States territorial waters. Another party wished to found another state, Atlantis, Isle of Gold, on the same reefs. The question relevant to this discussion was whether the Secretary of the Army could prevent the building work under the provisions of the Outer Continental Shelf Lands Act. The reefs were completely submerged at mean high water and therefore constituted "seabed" and "subsoil" of the outer continental shelf under the Act, it being pointed out that all overlying waters did not exceed one hundred fathoms depth.[77] The brief of the United States, supported by the Legal Adviser to the Department of State emphasized that it would be contrary to the United States' interests "to claim, at this time, in a domestic court, more rights for the United States over its continental shelf than are necessary to prevent damage to the interests involved in the particular case".[78] The government did not claim ownership of the reefs. The evidence showed that the government had, however, a vital interest in preserving the reefs for skin divers, marine researchers and others. Dredging and filling as contemplated would have destroyed the coral, and the United States had ample grounds to obtain injunctive relief. The case does not lay down rules where no "natural resources" are involved, but may be taken as an indication of the attitude of the United States courts in such cases.[79] The case would appear to be a good specimen of the concept of "creeping jurisdictions" and a reliable guide to future United States actions in such cases. It may be predicted that Project Taluga could well be faced with simular action.

It has already been suggested that the United States occupy Cobb Seamount, two hundred and seventy miles west of the state of Washington, which rises to within 112 feet of the surface.[80] The first permanent construction attempt on Cobb Seamount, in 1970 by the United States is aimed to construct an instrumental tower or mast for scientific exploration.[81] The Inter-Seamount Acoustic Range project consisting of submerged transmitting and receiving stations on San Juan and Westfall Seamounts represents another utilization of seamounts.[82] Such features would appear to have

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[77] *U.S.* v. *Ray* (1970), 423 F.2d. 16.

[78] *Ibid.*, at p. 19.

[79] "Obviously the United States has an important interest to protect in preventing the establishment of a new sovereign nation within four and one-half miles of the Florida Coast", *ibid.*, at p. 23.

[80] E. M. Borgese, Towards an International Ocean Regime (1969), 5 Texas International Law Forum 218, at pp. 220-221.

[81] Seamount Construction Termed a Successful First (Oct. 1970), 5(10) Oceanology International 14.

[82] Windmills at Sea (Apr. 1971), 6(4) Oceanology International 27.

many future uses and may well become zones of exclusive jurisdiction.

Canada's state practice is much clearer than that of the United States. Canada defines its continental shelf as extending at least to the abyssal depths. Permits have been issued for exploration in water depths ranging to 2,200 (Gulf of Maine), 3,700 (Scotian Shelf), 2,800 (Grand Banks), 2,100 (Labrador Sea), 900 (Arctic Islands) and 2,600 metres (Beaufort Sea).[83] These areas extend up to 300 miles offshore and may reach a distance of 400 miles if the Flemish Cap is regarded as a "natural appendix of [Canada's] shelf".[84]

New Zealand has granted extensive petroleum prospecting licences at water depths between 200 and 1,000 metres, and in some areas the licences reach greater depths. The Minister of Mines has never refused a petroleum prospecting licence on the grounds that the area was outside New Zealand jurisdiction.[85] Two of the many licences including areas deeper that 200 metres are of special interest. Licence 800 to Howe Offshore Petroleum covers an area of 29,800 square miles. Howe's concession is adjacent to Shell, British Petroleum Todd's licence 682 in which the four Maui drillings have taken place.[86] Howe's annual licence fee is 14,900 U.S. dollars and there is an initial undertaking to conduct an aerial magnetometer survey costing not less than 200,000 United States dollars. Licence 863 granted to Hunt International Petroleum Company of New Zealand covers 154,000 square miles, comprising the Campbell Plateau. The annual fee is 77,000 U.S. dollars and the initial seismic survey undertaking (including Hunt's licence 864) is for an aggregate expenditure of not less than 80,000 dollars. It may be pointed out that both the Howe and Hunt licences give the licensee the right to surrender part or all of the licence and to receive in exchange thereof a mining licence, at any time during the currency of the prospecting licence. The petroleum mining licence form annexed to the prospecting licences gives an exclusive right to mine for petroleum on the continental shelf area scheduled for forty-two years and permits renewal. The Howe licence is almost entirely in water depths greater than 500 metres, as is the greater part of the Hunt licence. Large portions of New Zealand's "staggering" 384,547 square mile offshore concession area[87] are

[83] Crosby, *op. cit.*, footnote 64, at p. 31.

[84] A. E. Gotlieb, Recent Developments Concerning the Exploration and Exploitation of the Ocean Floor (1969), 15 McGill L. J. 260, at p. 274. The author was Legal Adviser to the Canadian Department of External Affairs at the time of writing the article.

[85] Letter from Mr. I. D. Dick, Under-Secretary, Mines Department, August 10th, 1970.

[86] F. M. Auburn, Mineral Resources of the Oceans in International and Municipal Law (1970) Australasian Mining Symposium 44, at p. 53.

[87] The area of New Zealand itself is 103,736 sq. miles.

therefore in water depths of 500 to 1,000 metres. It is recognized that water depth, distance from shore and bad weather conditions in most of these areas will require technological skills beyond present capacities for commercial operations.[88]

The Australian official interpretation of the continental shelf boundary points to the outer edge of the continental margin.[89] Australia's "expanding rim" concept has been seen as the most extreme interpretation yet made of the Geneva Convention definition.[90] This concept is imported into the operation of Australian legislation, and, in particular, the Petroleum (Submerged Lands) Act, 1967.[91] The Act provides for the future application of laws to the exploration for and exploitation of underwater petroleum in "Adjacent areas".[92] "Adjacent area" means an area specified in the Second Schedule as being adjacent to a State or Territory.[93] The Second Schedule provides a list of geographical co-ordinates for areas offshore of States and Territories but, by the Schedule's definition, "adjacent area" in respect of a State or Territory is the area the boundary of which is described in the Schedule in relation to that State or Territory, to the extent only that that area includes territorial water areas and areas of superjacent waters of the continental shelf.

The co-ordinates described in the Second Schedule to the Act[94] encompass large areas of the ocean in water depths down to more than 6,000 metres. These "picture frames" would not appear to represent the whole extent of Australia's continental shelf in the future as there is no provision for *inter alia,* several Australian islands and the Australian Antarctic Territory. The effect of the "picture-frames" is to permit petroleum exploration and exploitation licensing "to such submerged lands as may at any time, as technology expands, have the character of 'continental shelf' within the meaning of the Convention".[95] It may be noted that the Second Schedule to the Act in effect adopts the median line principle for demarcation of part of Australia's continental shelf boundary with Indonesia.[96] Whilst Australia may have "taken the lead in the

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[88] H. R. Katz, Oil Exploration in New Zealand — Past and Future Trends (1971), 11(1) A.P.E.A.J. 35, at p. 41.

[89] Rt. Hon. William McMahon, then Foreign Minister on November 30th, 1970, quoted in [1971] Current Notes, note 61, at p. 109.

[90] Offshore Sovereignty Asserted (1970), 44 A.L.J. 189, at p. 190.

[91] D. P. O'Connell, Problems of Australian Coastal Jurisdiction (1968), 42 A.L.J. 39, at p. 49.

[92] S.9.

[93] S.5(1).

[94] For a map, see Bank of New South Wales, Offshore Australia (1971), p. 51.

[95] C. W. Harders, The Sea-Bed (1969), 3 Federal L.R. 202, at p. 214.

[96] R. D. Lumb, Sovereignty and Jurisdiction over Australian Coastal Waters (1969), 43 A.L.J. 421, at p. 426.

world in legislating for areas far beyond the 200 metre line",[97] concessions granted are generally not deeper than 200 metres on the East Coast and in Bass Strait. It is only off South Australia,[98] and Western Australia[99] that considerable parts of concessions are below 200 metres.[100]

An indication of the Australian Government's views, in practice, may be gained from the multi-million dollar offshore survey being conducted by the Bureau of Mineral Resources, Geology and Geophysics. As part of this project a French contracting firm is operating the M. V. Lady Christine in a geophysical survey to "help evaluate petroleum prospects".[101] From November 8th, 1971 to December 6th, 1971 the ship operated off Queensland in waters deeper than 4,000 metres.

IV. *Red Sea Brines.*

Another warning of the necessity for urgency in the deliberations of the Seabed Committee is provided by the Red Sea brines. The area of chief commercial interest is the Atlantis II Deep. The brines are at a depth of approximately 2,000 metres. There are two smaller areas, Discovery Deep and Chain Deep, close by. These three brine areas are situated in the Red Sea between Saudi Arabia west of Jeddah and the Sudan. A further possible brine hole, the Oceanographer Deep, has been observed four hundred miles north of the previously discovered area. This Deep is situated between the United Arab Republic and Saudi Arabia.[102] Two commercial exploration expeditions have been undertaken in 1971 to investigate the possibility of similar brines in the Gulf of Aden, with the approval of the coastal states, the Democratic Republic of Somalia and the People's Republic of Southern Yemen.[103] On Leg XI of the National Science Foundation's Deep Sea Drilling Project "Red Sea-like metals" were discovered in the Atlantic Ocean about 300 miles southwest of New York City.[104] It would therefore appear that

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[97] D. P. O'Connell (1969), 43 A.L.J. 441, at p. 444.

[98] In Titles SA/10 and SA/11.

[99] For instance, in Titles NT/P5, WA-33P, WA-30P and WA-28P, the area proximate to North Rankin No. 1 where a major natural gas field was discovered in July 1971.

[100] Bureau of Mineral Resources, Geology and Geophysics, Petroleum Exploration and Development Titles, December 31st, 1970.

[101] French Aid Australians for Geophysical Survey (Oct. 1970), 5 (10) Oceanology International 15.

[102] F. Ostapoff, A Fourth Brine Hole in the Red Sea?, in Degens and Ross, *op. cit.*, footnote 57, at p. 18.

[103] E. Blissenbach, Metalliferous Deposits of the Red Sea Bottom and Development Aspects, World Peace through Law Conference, Belgrade (July 1971), p. 18.

[104] Red Sea and Atlantic More Alike than Not, Christian Science Monitor, August 14th, 1970.

the recent statement of an authority on the subject that "there is reason to believe that metalliferous brines may be more common than is presently realized"[105] represents a conservative statement. The Red Sea brines are often in the form of slurry[106] and should, it is suggested, from a legal point of view, be regarded as part of the sea rather than the seabed. This view gains support from suggestions that "the ooze is very fluid in its natural state" and might be transported from mining ship to shore by pipeline.[107]

Despite the novel problems of recovering large volumes of brines at water depths of more than 2,000 metres, commercial companies have expressed considerable interest in obtaining exploration rights.[108] Although much publicity was given to various attempts to claim prospecting rights it would appear that a concession has in fact been granted by the Sudanese Government to Sudanese Minerals Ltd., a Sudanese company whose stock ownership was nationalized by the Sudanese government in June 1970. Sudanese Minerals Ltd., holds certain exclusive prospecting licences convertible into mining leases covering the Atlantis II Deep. Sudanese Minerals entered into an operating agreement with a United States company, International Geomarine Corporation, under which the latter would provide the necessary funds and management for exploration and exploitation of the minerals in return for a specified percentage of the net operating profits, if any. International Geomarine subsequently entered into a series of agreements with Preussag A.G. of West Germany to share the responsibilities and benefits of the operating agreement. Negotiations are under way between the companies and the Sudanese government to modify the original operating agreement.[109] Apparently the concession also covers the Discovery Deep and the Sudan issued a non-exclusive concession over much of the rest of the Red Sea opposite its coast.[110] It also appears that Preussag is receiving considerable support from the West German government and from a very large integrated metal company.

Although there has been controversy over the economic aspect

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[105] J. S. Tooms, Review of Knowledge of Metalliferous Brines and Related Deposits (1970), 79 Bulletin, Institution of Mining and Metallurgy Section B, 116, at p. 125.

[106] J. S. Tooms, Metal Deposits in the Red Sea, [1970] Underwater Science and Technology Journal 28, at p. 29.

[107] T. N. Walthier and C. E. Schatz, Economic Significance of Minerals Deposited in the Red Sea Deeps, in Degens and Ross, *op. cit.*, footnote 57, at pp. 543, 545-546.

[108] F. T. Christy, Jr., Marigenous Minerals: Wealth Regimes and Factor of Decision, in Accademia Nazionale dei Lincei, Symposium on the International Regime of the Seabed: Proceedings (1970), p. 113, at p. 121.

[109] Letter from Mr. Coleman Morton, President, International Geomarine Corporation, dated July 14th, 1971.

[110] Tooms, *op. cit.*, footnote 105, at p. 33.

of the exploitation of the brines[111] it seems that commercial exploration is well advanced. A recent view advanced by an authority engaged in the exploration appears to be that the brines are capable of exploitation within the meaning of the Continental Shelf Convention.[112]

It has been suggested that the Atlantis II, Chain and Discovery Deeps must be regarded as being on the continental shelf of Sudan, as they are situated west of the median line between Sudan and Saudi Arabia.[113] This view is based upon the equidistance rule in article 6(1) of the Convention.[114] However, Saudi Arabia is not a party to the Convention and, in such circumstances, the use of the equidistance method of delimitation is not obligatory on coastal states.[115] In correspondence with a United States firm the Saudi Arabian Government indicated that it claims the Red Sea brines.[116] Saudi Arabia has not given any concessions over the Red Sea brines.[117] The Saudi Arabian Law relating to the Acquisition of the Red Sea Resources, 1968 provides that hydrocarbons and minerals "in the strata of the high sea bottom with respect to an area of the Red Sea extending below the high sea and contiguous to the continental shelf of Saudi Arabia" appertain to the Kingdom.[118] It is clear that this law was specifically sanctioned in order to protect the Kingdom's rights in the Red Sea brines.[119] It is also clear that Saudi Arabia does not subscribe to the principles of the Continental Shelf Convention.

It would therefore appear that, as a consequence of the *North Sea Continental Shelf* cases, a Sudanese argument based upon the

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[111] Summarized in Tooms, *op. cit., ibid.,* at p. 32.

[112] ". . . we can conservatively assume the development of technically feasible and economically justifiable means for the production of the metallic deposits of the Red Sea in the near to intermediate future. We should, therefore, regard the mineral occurrence as potentially exploitable with all legal implications." Blissenbach, *op. cit.,* footnote 103, p. 13.

[113] Griffin, *op. cit.,* footnote 57, p. 555.

[114] Griffin, *op. cit., ibid.,* p. 553.

[115] *North Sea* cases, *supra,* footnote 49, at p. 53. The court's judgment referred to article 6(2) of the Convention covering adjacent states but it is submitted that the principle also applies to opposite states under article 6(1) as the phrasing of the two provisions is identical in all relevant respects.

[116] J. E. Crawford, Activities of Nations in Ocean Space, Hearings before the Subcommittee on Ocean Space of the Committee on Foreign Relations, 91st Cong., 1st Sess. (1969), p. 75.

[117] Letter from Ministry of Petroleum and Mineral Resources, Saudi Arabia, dated May 3rd, 1971.

[118] Sanctioned by Royal Decree M/27 of October 1st, 1968. The quotation is taken from a text supplied by the Saudi Arabian Ministry of Petroleum and Mineral Resources.

[119] Explanatory Note on the Draft Regulation for Acquisition of the Red Sea Resources (1968), p. 5. The question whether the law does in fact actually carry out the intended purpose of covering the brines may well be raised but is not directly relevant to this discussion of international law aspects.

median line is far from decisive. Various suggestions can be put forward for the division of the brine areas between Saudi Arabia and the Sudan. The maximum breadth of the Red Sea is 340 kilometres[120] so that any partition would not place the boundary at a point which could be described as not "adjacent" having regard to distances already covered in the North Sea and on the Australian continental shelf. The Red Sea might be regarded as a special case from the point of view of the continental shelf doctrine, of a "semi-enclosed sea".[121] It has been suggested that the depth of the superjacent waters admits of the exploitation of the Red Sea brines.[122] But it would be most surprising if the Sudanese or the Saudi Arabian Government were prepared to consider the reservation of the brines, found at a depth of more than 2,000 metres and well beyond the territorial seas claimed by both coastal states, for the proposed international regime. It is difficult to envisage either country giving up minerals having an estimated commercial value of hundreds of millions of dollars.[123]

V. *Manganese Nodules.*

One of the most urgent problems connected with a future international seabed regime is the rapidly increasing momentum of commercial research on the recovery of manganese nodules. The most publicized activities, those of Deepsea Ventures Inc. of Virginia, appear to contemplate that it is possible to recover 1,000,000 tons of nodules per year, thus satisfying twenty-five per cent of current United States annual manganese needs, ten per cent of the United States nickel, one per cent of the copper and forty per cent of the cobalt. The most promising area appears to be the mid-Pacific in depths of 4,500 to 6,000 metres. The company aims to exploit relatively level nodule deposits of 1,000 square miles of good nickel-copper assay on "twenty-year" mine sites.[124] Deepsea Ventures has specifically stated that it "is ready to file a claim on a specific ore body now" and only awaits identification of an agency competent to receive such an application.[125] Following tests in July and August 1970 on the Blake Plateau at a depth of 2,400 feet, 120

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[120] Blissenbach, *op. cit.*, footnote 103, p. 12.

[121] Northcutt Ely, Legal Problems in Undersea Mineral Development, [1970] J. Petroleum Technology 237, at p. 239.

[122] Art. 1, Continental Shelf Convention. For the argument see Blissenbach, *op. cit.*, footnote 103, p. 13.

[123] For one valuation, see Blissenbach, Bulletin C.N.E.X.O. (Dec. 1970), 21, at p. 22.

[124] A. J. Rothstein, Deep Ocean Nodule Mining, [Sept. 1970] Underwater Science and Technology J. 133, at pp. 134, 136.

[125] R. J. Greenwald, Problems of Legal Security of the World Hard Minerals Industry in the International Ocean, Offshore Technology Conference (April 1971).

miles off Charleston, South Carolina at a site "more or less under the jurisdiction of the United States Government",[126] the company announced plans to form an international consortium with Metallgesellschaft A.G. of West Germany and Japanese interests. The purpose of such a consortium is to raise the 200,000,000 U.S. dollars needed and to reduce the political hazards.[127] Latest plans are for the building of a plant in the Gulf of Mexico to handle one million tons of nodules a year from a 4,000 square mile mine site discovered between the Continental United States and Hawaii. On present schedules the plant will be in full scale operation in 1975 or 1976 yielding 260,000 tons manganese, 12,600 tons nickel, 10,000 tons copper and 2,400 tons cobalt per year.[128]

It has been frequently argued that manganese nodule exploitation is not worthwhile economically due to the cost of technological innovation, availability of nodule minerals on land and the drop in price of such minerals when the necessarily large quantities of nodule minerals are marketed.[129] One recent analysis predicts that there will be "no commercial-scale exploitation of deep-ocean nodules for several years — probably not before 1985".[130] It has been the general opinion of observers that nodule recovery is uneconomical.[131] But, on a world-wide basis almost every ore deposit production today has been turned down, for economic reasons, at some time in the past.[132] Whilst it is doubtful whether very large profits will be obtained, as suggested by some authorities[133] it appears from the number of firms and states actively engaged in manganese nodule research, and spending very large sums on such research, that commercial exploitation may well occur within a short space of time.

A brief survey of some of the concerns actively engaged in such research supports this argument. In December 1970 and

[126] R. Kaufman and J. P. Latimer, The Design and Operation of a Prototype Deep-Ocean Mining Ship, Spring Meeting, Soc. Naval Architects and Marine Engineers (May 1971), pp. 3-1, 3-21.

[127] D. R. Francis, Deep-sea Mining Process, Christian Science Monitor, September 1st, 1970.

[128] D. M. Taylor, Worthless Nodules Become Valuable, Ocean Industry (June 1971), p. 27.

[129] See *e.g.* P. E. Sorensen and W. J. Mead, A Cost-Benefit Analysis of Ocean Mineral Resource Development: The Case of Manganese Nodules (1968), 50 Am. J. Agric. Econ. 1611.

[130] F. L. Laque, Deep-Ocean Mining: Prospects and Anticipated Short-term Benefits, in Burnell and von Simson, *op. cit.*, footnote 76, at p. 22.

[131] "So far many academics and industrial advisers have been happy to award grades of 'A' for effort and 'F' for economics to those firms actively engaged in creating the new technology needed for deep-sea mining", Tony Loftas, Can Deep Sea Mining Make a Profit, New Scientist, December 3rd, 1970, at p. 370.

[132] C. F. Austin, "In the Rock . . . A Logical Approach for Undersea Mining of Resources" (1967), 168 Engineering and Mining J. 82, at p. 83.

[133] *E.g.*, J. L. Mero, A Legal Regime for Deep Sea Mining (1970), 7 San Diego L. Rev. 488, at p. 492.

January 1971 the French government undertook initial dredging near the Tuamotu Islands in the Pacific.[134] The Japanese government has formed a government-industry consortium composed of the Japan Science and Technology Agency, three companies of the Sumitomo Group and Mitsui Mining and Smelting Co., which recovered nodules in 1970 at a depth of 3,760 metres.[135] This research has been going on for several years, including three years of ocean testing of dredging equipment.[136] It is notable that, of the United States companies actively involved in this field, only Deepsea Ventures has publicised its progress. Kennecott has been engaged in a programme since 1962 but its published material is singularly unrevealing.[137] Hughes Tool has been working on ocean mineral research for ten years and is currently developing a deep ocean mining system of which it is not revealing details.[138] But the most interesting recent development in ocean minerals prospecting is the setting up of an International Co-ordinating Center of Marine Exploration in the Soviet Union which will be open to members of Comecon. Joint expeditions are planned to select prospective mineral exploitation sites in the Atlantic and Indian Oceans.[139]

The number of large private and public enterprises and consortiums engaged in active research is one factor ensuring rapid progress. Other factors are the large capital investment demanded in developing nodule mining systems and processing methods requiring returns, the danger of the increasing number of competitors getting in first to the promising mining sites, the impossibility of keeping the industrial secrets involved from competitors for any length of time,[140] and considerations of international prestige among the leading oceanographic powers which may lead to an "ocean sputnik". Furthermore, the United Nations' progress in formulating principles of an international regime, and in particular the Moratorium Resolution would appear to have given added impetus to the advocacy, at least in the United States, of national legislation for nodule mining.[141]

One possible approach has been suggested by Deepsea Ventures.[142] It is argued that exploitation of manganese nodules beyond

[134] Bulletin C.N.E.X.O. (Feb. 1971), 4.

[135] "Japanese bucket dredge mines nodules in 3,600 m." (Dec. 1970), 5(12) Oceanology International 16.

[136] Letter from Sumitomo Shoji Kaisha Ltd. of August 17th, 1970.

[137] C. E. Schatz, Observations of Sampling and Occurrence of Manganese Nodules, Offshore Technology Conference (1971), Paper No. 1364.

[138] Letter from Hughes Tool Co., Oil Tool Division, of July 14th, 1971.

[139] T. Shabad, Soviet Bloc Plans Big Seabed Study, New York Times, April 24th, 1971.

[140] F. M. Auburn, State Practice in Ocean Claims, Sixth Law of the Sea Institute Conference (1971).

[141] F. M. Auburn, Manganese Nodules in International Law, World Conference on World Peace through Law, Belgrade (July 1971).

[142] Flipse and Greenwald, *op. cit.*, footnote 3.

the limits of national jurisdiction will not be faced with a legal void. The applicable principles are the flag nation approach, freedom of access to all for reasonable uses and the crystallization of custom to develop law. "Certain reasonable revenues" would be allocated, under the control of the donor state, to developing countries for international marine training, fish protein concentrate plants and similar projects. Deepsea Ventures recommend that the United States establish an interim national deep ocean floor claims registry, with a call to other nations to do likewise and respect claims on a basis of reciprocity. Jurisdiction, it is emphasized, would not be territorial but only regulate, protect, tax the operator and guarantee his security of tenure during the limited period of his activities. A "Deep Ocean Floor Resources Act" would provide for a uniform duration and area for each type of resource, definitions of operators' competence, level of activity to preserve rights, uniform safety, conservation and pollution standards, guidelines in case of multiple use, recognition of freedom of non-registered exploration and guarantees in the event of an international regime being established.[143]

On November 2nd, 1971 Senator Metcalf presented to the Senate the Deep Seabed Hard Mineral Resources Act drafted by the American Mining Congress.[144] The Act would only apply to persons subject to the jurisdiction of the United States and reciprocating states. The Secretary of the Interior would be given power to issue exclusive licences over the "deep seabed" (the seabed and subsoil seaward and outside the continental shelves of the United States and foreign states) which would only bind persons under the jurisdiction of the United States or reciprocating states. The President, in co-operation with reciprocating states, may designate a recording agency as the "international clearinghouse" whose function "shall consist solely of keeping records" of licences. An unspecified percentage of licence fee and income tax revenues derived directly from deep seabed hard mineral recovery would be deposited by the United States in an escrow fund assistance to reciprocating developing states designated by the President. Licences issued under the Act could be made subject to a future international regime provided such regime fully recognized and protected the licensee's rights and the United States fully reimbursed licensees for losses.

Such an arrangement among like-minded nations would be an acceptable alternative to a United Nations regime, for the hard minerals industry.[145] However, such an interim arrangement would preserve and create vested rights for a limited number of developed states (and their nationals). Temporary arrangements in international law have a strong tendency to permanence.

[143] *Ibid.* [144] S.2801.
[145] Greenwald, *op. cit.*, footnote 125.

Another possible approach to the problem of current trends in seabed practice was put forward by the Canadian Representative on the Seabed Committee in March 1971.[146] The basis of the proposal is a new type of moratorium resolution calling upon all states to set an outer limit to their continental shelf claims, or, alternatively, specifying a past date on which national claims would have been deemed to have been fixed. This resolution would enable the definition of the minimum international seabed area and allow the establishment of the desired international machinery. The claims made under the resolution could be the maximum limits "beyond which [states] will not claim under any circumstances".[147] The transitional machinery would consist of an *ad hoc* executive council appointed by the United Nations General Assembly and a resource management commission nominated by the council. The commission would record coastal states' claims, register offshore exploration and exploitation, issue licences for the non-contentious area of the seabed, and collect fees. The third step would be a call to all coastal states to pay to the interim international machinery a fixed percentage of all the revenues they derive from the whole of the seabed areas claimed by them beyond the outer limit of their internal waters. It is suggested that one per cent of such revenue might produce fifteen million dollars per month.

The proposal is clearly based upon Canada's claim to a very wide continental shelf. But it must be examined from the international viewpoint. The essential quality of such a transitional regime is speed. Unless the suggested state claims are filed quickly, a transitional regime will be too late. But there are a number of states which will have great difficulty in formulating a maximum claim.

It is suggested that any transitional scheme must be based upon the fact that it is transitional. On a short-term view it is reasonable to assume that the continental shelf-seabed boundary will be set well below 200 metres. Therefore oil and gas exploitation need not be subjected to such arrangements. The urgent problem would appear to lie in regulation of manganese nodule exploitation. In view of the urgency of this question an alternative which could prove attractive to the developing countries is an international manganese mining consortium in which the developing countries' share capital is loaned to them by an international financial institution.[148]

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[146] See A/AC.138/59, August 24th, 1971, pp. 18-21, incorporating these suggestions.

[147] Statement by Mr. J. A. Beesley to the Seabed Committee, March 24th, 1971, p. 22.

[148] For details see Auburn, *op. cit.*, footnote 140.

Conclusion

The Declaration and Resolution of the General Assembly of December 1970 represent considerable progress towards an international seabed regime. But much of the seabed debate has proceeded in the form of draft regimes, assumptions of large revenues and protracted quarrels over seats on the Seabed Committee.[149] At a national level very few states have a clear concept of their own national policy regarding an ocean regime. Whilst the debate at the United Nations proceeds exploration and exploitation go on apace. By 1973 states will have vested interests in petroleum concessions far below 200 metres, in brine concessions at more than 2,000 metres and in their nationals' maganese nodule ventures at 6,000 metres. The conclusion to be drawn by the Seabed Committee is that time is running out.

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[149] On the analogy of the Continental Shelf Convention.