THE LAW OF THE SEA: A NEW GENEVA CONFERENCE

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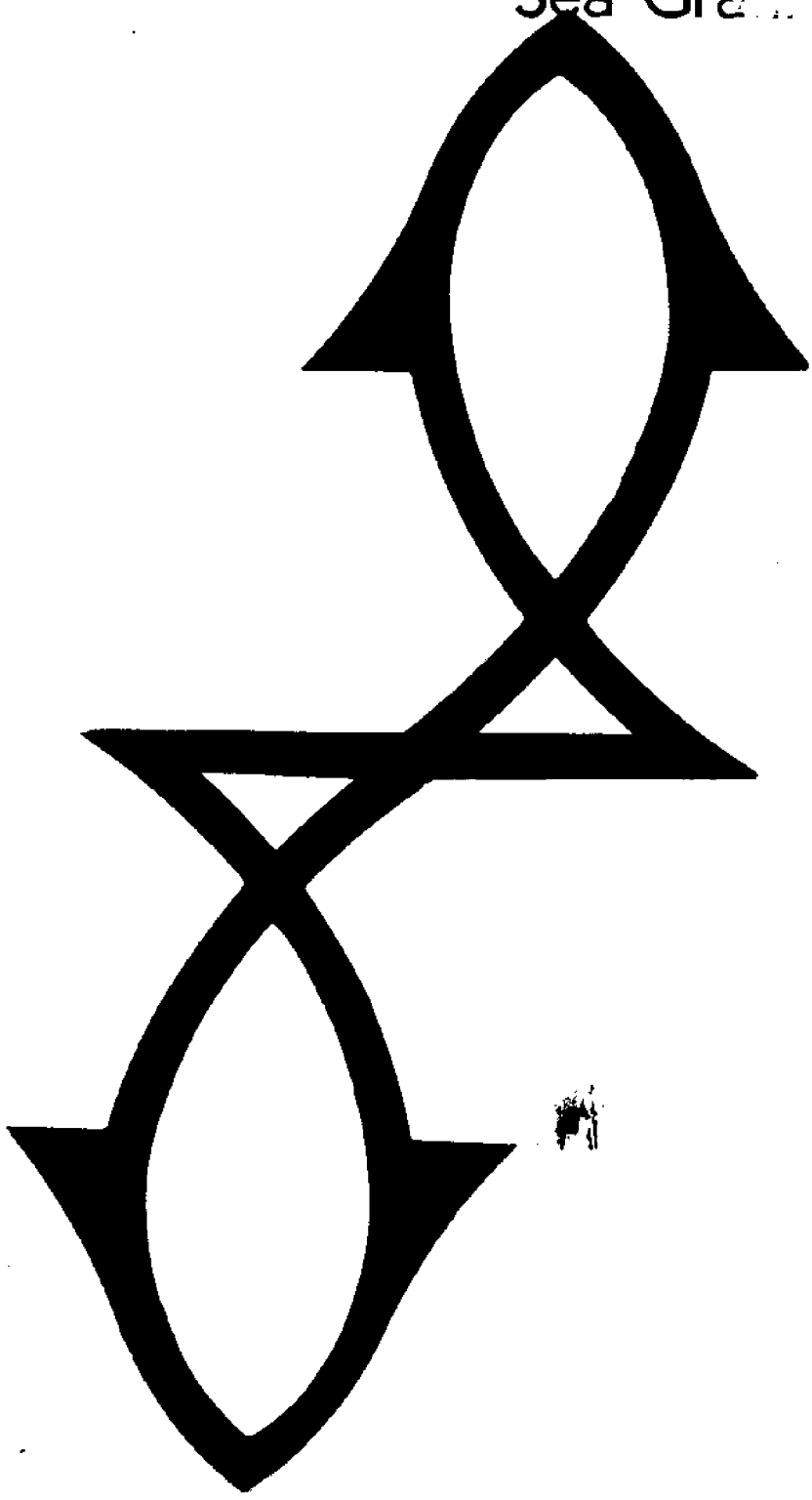

The Law of the Sea:
A New Geneva Conference

Law of the Sea Institute

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Norma H. Hagist, Editorial Assistant

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A New Geneva Conference

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The 1973 Conference on the Law of the Sea: The Consequences of Failure to Agree

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Monday morning, June 21

> The nations of the world are now facing decisions of momentous importance to man's use of the oceans for decades ahead. At issue is whether the oceans will be used rationally and equitably and for the benefit of mankind or whether they will become an arena of unrestrained exploitation and conflicting jurisdictional claims in which even the most advantaged states will be losers. . . . The stark fact is that the law of the sea is inadequate to meet the needs of modern technology and the concerns of the international community. If it is not modernized multilaterally, unilateral action and international conflict are inevitable.

Extract from President Nixon's Statement on U.S. Oceans Policy, May 23, 1970.

> We do not believe it to be the task of the conference to break up the international legal order that has matured through long historical development and forms the basis for the use of the world's oceans by States. Attempts to revise that regime, which was embodied in the Geneva Convention, and to replace it with some new regimes, could seriously damage the development of international co-operation in the use of the world's oceans.

Mr. Issraelyan, USSR, in First Committee of General Assembly, December 16, 1970 (A/C. 1/PV. 1800, pp. 54-55).

> As misleading as the science fiction fallacy is the prophetic fallacy, which consists in foreseeing catastrophic consequences for mankind if the Committee does not agree in the next day, in the next month or even in the next General Assembly. For some time now, visions of doom and chaos have been conjured up in the wake of unreached agreement, only to be disproved by reality.

Mr. Guerreiro, Brazil, in Seabed Committee, March 22, 1971.

I: INTRODUCTION

As the above quotations suggest, some States fear that the world's oceans will be the scene of waste and conflict if a new Law of the Sea Conference[1] fails to create a new order; others fear that a more likely outcome will be the spread of the present disorder to new areas of the law; others again, rejecting rhetoric, hyperbole and generalizations, are aware of the advantages which a sense of urgency can bring but are conscious too of the dangers of exaggerating the significance of a particular date or of linking related issues so closely together that difficulties are placed in the way of progress on any one issue.

As in most great issues of politics, domestic or international, growth is likely to take place along a line which, if it is not a golden mean, is at least somewhere between the utopian dreams of the idealists and the reactionary immobility of the realists; between the hopes and expectations of the developing States and the conservatism of the satisfied.

In the analysis which follows, it has been the writer's aim to assess the prospects of success and the consequences of failure of the 1973 Conference in full awareness of the interplay of these two forces, neither of which—whatever our personal predilection—should be underestimated. The first is typified by the words of the Chairman of the Sea-Bed Committee, Mr. Am-

[1]The UN General Assembly's decision to convene a Law of the Sea Conference is embodied in A/RES/2750 (XXV) of December 17, 1970. The Conference is provisionally scheduled for 1973 but "if the General Assembly at its twenty-seventh session determines the progress of the preparatory work of the [Sea-Bed] Committee to be insufficient, it may decide to postpone the Conference"; (*ibid.*, para. 3).

erasinghe, opening the first preparatory meeting of the enlarged Sea-Bed Committee in March 1971:

> During the three years of discussion in the United Nations, the international community had shown an ever increasing interest in the subject, not merely because of the attractions of the wealth awaiting exploitation but also because of the almost unrivalled opportunity and scope for international cooperation in a spirit more consonant with the principles of the Charter than the pursuit of national or regional interests. The alternative would have been fierce competition and rivalry between nations and groups with the inevitable effect of heightening international tension and increasing existing economic disparities throughout the world. The acceptance of the idea of the common heritage of mankind which gave a unique status to the area and its resources held out the promise of a new era of fruitful international cooperation.[2]

Professor Oda, a seasoned negotiator from a highly developed, "satisfied" State, was more conscious of the opposing forces when, in his recent Hague lectures, he referred more than once to "the underlying rationale of free competition [as] one of the basic values endorsed by modern history."[3]

In his view:

> Although free competition is not the ideal solution, it would be imprudent to scrap that principle, one of the most fundamental and well-grounded rationales in modern society, and to substitute a system which would merely give lip-service to so-called "equitable" quotas for fishery resources of the high seas. This is hardly an age of consensus among nations on the general interests of the world community; nor is it likely that any State would be ready to sacrifice its own interests for the benefit of the world at large. . . . Few will doubt that, until the time comes when, as in municipal society, some super-authority can guarantee an equitable sharing of resources among the nations, the States will continue to argue for adoption of principles most favorable to their own interests in the field of high-seas fishing.[4]

The title of this paper might well be taken to reflect a negative, pessimistic or even fatalistic attitude towards the 1973 Conference. Let it be said immediately, therefore, that it is the writer's hope that an investigation in June 1971 of the consequences of failure to agree in 1973 may make a useful, positive contribution to the continuing debate on the law of the sea in at least four directions.

It is arguable that the best legislation is that which corrects with equity developments which the normal dynamic of events would otherwise have produced. It may then be useful, by identifying and projecting current trends in State practice, to reflect on the direction in which political forces will move in the event of failure to agree and to consider whether the wiser course might not be to aim for an equitable correction of, rather than a revolutionary departure from, these developing norms.

Second, there is little doubt that the invitation to contribute a paper on this subject reflects the widely shared feeling that this is a uniquely unpredictable conference. Reflection on the reasons for this unpredictability may even at this late stage help to stimulate thoughts on how to make it less so.

Third, it is surely useful for everyone, conference delegates and observers alike, to be quite clear about the implications, legal and political, of the Declaration of Principles Governing the Seabed and the Ocean Floor and the Subsoil thereof Beyond the Limits of National Jurisdiction, adopted by the General Assembly on December 17, 1970.[5]

Finally, it is sensible contingency planning rather than pessimism to determine, as far as our inexact science permits, the likely consequences of failure to agree.

II: PREPARING FOR 1973—THE 1958 CONFERENCE ANALOGY

Much of the scepticism, especially on the part of international lawyers, about the prospects for a successful Conference in 1973 is based on an awareness that the Geneva Conference on the Law of the Sea met in 1958 only following some six years of preparatory work by the International Law Commission and that the relative success of that Conference could never have been attained in the absence of the detailed draft articles patiently evolved by a small group whose legal expertise was complemented by their experience in intergovernmental negotiation. The argument then is that the 1973 Conference would enjoy better prospects if it could be provided with a coherent and refined set of draft articles prepared in the relative calm of the International Law Commission or in some similar body.

Mr. Stevenson, Legal Adviser in the United States State Department, responded to such criticism by asking his colleagues on the Seabed Committee not to be misguided by this analogy. He argued that the Committee need only deal with those specific issues believed to be in need of attention now and could rely, to the extent it chose, on the accomplishments of the four Geneva Conventions. He went on to recount the "great progress on an international seabed regime in the United Nations since 1967" and that

[2] A/AC. 138/SR. 45, p. 7. The "pursuit of national or regional interests" was, however, very much in evidence in the determination of the membership of the enlarged Sea-Bed Committee (see A/PV. 1933, December 18, 1970), in the organization of its work program and in the appointment of the officers of the Committee and its Sub-Committees.

[3] S. Oda, "International Law of the Resources of the Sea." II *Recueil des Cours* (1969), p. 405.

[4] *Ibid.*, pp. 419-420.

[5] A/RES/2749 (XXV), adopted by 100 to 0, with 14 abstentions.

> we now have a common understanding of what the issues are. More importantly, when the 25th General Assembly adopted a Declaration of Principles, it gave us a common foundation on which to build. Thus, by the time a conference is held in 1973, the United Nations will have devoted nearly six years of intensive work to the establishment of a new international regime for the seabeds.[6]

This is true but it is not the whole truth. Thus, it is clearly impossible to rely on the Geneva Conventions for the most important and difficult questions on the agenda of the 1973 Conference; it is a matter of opinion how much progress has been made since 1967; knowledge of the issues is a long way from sensible proposals for their solution; four of the "six years of intensive work" have produced a Declaration of Principles distinguished mainly by generalities, ambiguities and a tendency to avoid key questions; such a Declaration provides an unimpressive "common foundation on which to build."

To underline the unsatisfactory nature of the preparatory work to date is not to suggest that it would have been possible or even desirable to follow the International Law Commission pattern of preparation. It is rather to deplore the lack of system apparent in the preparatory process so far. A remedy could in theory have been found on one of two levels.

First, the negotiation of general principles could have been continued until agreement was reached at a much lower level of abstraction than was attained in the Declaration of December 17, 1970. Given a relatively more precise framework, the task of treaty-negotiation would have been made considerably easier and the membership structure and working methods of the Seabed Committee—to which the duty to produce draft articles has been assigned—would have been less crucial. The obvious retort to this suggestion is to repeat *ad nauseam* the political arguments which dissuaded Governments from adjourning the debate on general principles yet again: the argument that the pace of technological advance and extension of national claims demand a solution now before it is too late; the argument that advantage must be taken of the impetus which has been built up since 1967 lest despondency, frustration and plain boredom decrease the prospects of success; the argument that the principles will probably be clarified if they are left on one side while the detailed rules are negotiated.

None of these arguments is very convincing. The first is exaggerated unless the objective is the establishment of an exceedingly narrow continental shelf. The second argument is valid but hardly a reason to settle for a set of principles which avoids most of the issues. The third argument is tantamount to admitting that agreement is unattainable now but perhaps may be reached on the basis of a detailed draft. This of course was the *raison d'etre* of the United States Draft Convention of August 3, 1970.[7]

Nevertheless, the die is cast and we have to live with the new Declaration of Principles. Is it still possible to inject a little more scientific method at a second level? Given that the Declaration of Principles is so vague, would it not be advisable to proceed in the following way. First, identify as precisely as possible the issues to be resolved. Second, identify the issues which are so closely interconnected with other issues as to be insoluble in isolation. Third, identify the optional patterns available for the solution of each issue or set of connected issues—working of course within the guidelines of the Declaration of Principles. Fourth, arrange for the production of a series of draft conventions (draft articles and commentary) on the basis of these optional patterns. The end result would be raw material for the Seabed Committee—which is essentially a political body qualified to make political choices among alternative patterns. The process would still be protracted and difficult but at least it would be thoroughly prepared.

Turning from these suggestions to look at the position reached at the end of the March 1971 meeting of the Seabed Committee, there are few grounds for optimism. It will be recalled that the Seabed Committee was able to reach agreement on the organization of their further work only with some difficulty and the "Agreement Reached on Organization of Work" (hereafter Organization Agreement) certainly bears the scars of the struggle.[8] It is thoroughly untidy and badly arranged and hardly designed to inspire confidence in the capacity of the Committee to pave the way for a successful Conference in 1973.

Under the Organization Agreement, the preparatory work for the Conference is allocated to three Subcommittees of the Whole, but subject to reservation to the parent Seabed Committee of certain "controversial issues."

SUB-COMMITTEE I

The subjects and functions allocated to Sub-Committee I are as follows:

> To prepare draft treaty articles embodying the international regime—including an international machinery—for the area and the resources of the seabed and the ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction, taking into account the equitable sharing by all States in the benefits to be derived therefrom, bearing in mind the special interests and needs of developing countries, whether coastal or landlocked, on the basis of the Declaration of Principles Governing the Seabed and Ocean Floor and

[6] Sea-Bed Committee, Mr. Stevenson's speech of March 18, 1971, p. 2.

[7] Draft United Nations Convention on the International Sea-Bed Area (A/AC. 138/25); or in Report of Sea-Bed Committee (General Assembly Official Records: Twenty-Fifth Session, Supplement No. 21 [A/8021]), Annex V.

[8] The text of the "Agreement Reached on Organization of Work" is in A/AC. 138/SR. 45/Corr. 1, March 17, 1971.

> the Subsoil thereof beyond the Limits of National Jurisdiction, economic implications resulting from the exploitation of the resources of the area (resolution 2750 A), as well as the particular needs and problems of land-locked countries (resolution 2750 B).[9]

The crucial question in this context is of course the determination of the limits of national jurisdiction and it is clear that the nature of the international regime and of its international machinery will be vitally affected by the whereabouts of that limit. Nonetheless, "the precise definition of the area of the seabed and the ocean floor beyond the limits of national jurisdiction" is one of the "outstanding subjects . . . left for determination by the [parent Sea-Bed] Committee." And it is

> understood that the Sub-Committees, in connection with the matters allocated to them, may *consider* the precise definition of the area of the seabed and the ocean floor and the subsoil thereof beyond the limits of national jurisdiction. It is clearly understood that the matter of *recommendations* concerning the precise definition of the area is to be regarded as a controversial issue on which the Committee would pronounce.[10]

This is a curious provision. It surely goes without saying that the function of the Sub-Committee is to report to the Committee, which would remain free to adopt or amend any recommendation which the Sub-Committee might make on this question. It does, however, emphasize, if emphasis is necessary, that the definition of the area beyond national jurisdiction is a question intimately interconnected with those of the breadth of the territorial sea, the continental shelf and fishery jurisdiction—all of which are within the terms of reference of Sub-Committee II—and that reconciliation of the drafts prepared by the two Sub-Committees may be a very delicate operation. To state the problem is to question the whole basis of the Organization Agreement and indeed to return to the initial doubts about the wisdom of proceeding to detailed negotiation while fundamental principles are still unclear. One result of the degree of generality of the Declaration of Principles is that both the United States Draft Convention and Ambassador Pardo's proposed 200-mile unified limit of national jurisdiction can be claimed to be consistent with it. Yet, if the law of the sea were to develop along the lines of the Pardo model, the newly agreed committee structure and organization of work would be quite unsuitable. Are we to conclude that the Organization Agreement has already by implication limited the options? The answer probably is that to draw any such conclusion would be to assume quite mistakenly that the Organization Agreement provides a carefully considered plan. In fact, it would seem that the work plan will make it more difficult for States, and especially those States which are scarcely able, for financial or personal reasons, to man the Sub-Committees at an adequate level, to see how the whole interrelated picture affects their interests and to prepare the way for an accommodation among the varying interests which different States seek to promote in differing degrees.

[9] *Ibid.*, p. 2.

[10] *Ibid.*, p. 1, emphasis added.

Sub-Committee II

Turning now to Sub-Committee II, its terms of reference are as follows:

> To prepare a comprehensive list of subjects and issues relating to the law of the sea, including those concerning the regimes of the high seas, the continental shelf, the territorial sea (including the question of its breadth and the question of international straits) and contiguous zone, fishing and conservation of the living resources of the high seas (including the question of the preferential rights of coastal States) and to prepare draft treaty articles thereon. It is understood that the Sub-Committee may decide to draft articles before completing the comprehensive list of subjects and issues related to the law of the sea.

Here again, quite apart from the doubts expressed above about the relation between the work of Sub-Committees I and II, there is no hint that the Committee is aware of how grossly underprepared they are for entering into negotiations on such questions as the breadth of the territorial sea; international straits and preferential fishing rights. As in the case of a seabed regime, so in relation to these subjects, a number of models are available and the minimum raw materials should surely include draft articles on the basis of these alternatives with a commentary indicating the implications of each pattern for related questions. It is highly doubtful, however, whether a political body such as a Sub-Committee of the Whole of the Seabed Committee is an appropriate organ to perform this task. If a Group of Experts could be established in a special 1973 Conference Secretariat,[11] the task might be left to them to prepare drafts on the basis of a list of options prepared by the Sub-Committees.

Sub-Committee III

Sub-Committee III is called upon

> To deal with the preservation of the marine environment (including, *inter alia*, the prevention of pollution) and scientific research and to prepare draft treaty articles thereon.

This part of the Organization Agreement does not call for much comment. The Sub-Committee will have the benefit of the considerable amount of work already done in the Specialized Agencies and elsewhere and will liaise with the Preparatory Committee for the UN Human Environment Conference (Stockholm, 1972).

[11] *Cf.* Ambassador Pardo's suggestion (Sea-Bed Committee, speech of March 23, 1971, at p. 83) for the appointment by the UN Secretary-General of a Secretary-General to coordinate the preparatory work at the Secretariat level. A similar appointment has been made for the United Nations Conference on the Human Environment which will take place in Stockholm in 1972.

It may well turn out that it will prove possible to deal only with the prevention of pollution arising from exploitation of the seabed by 1973 and that more time will be necessary to give effect to the proposals which will be discussed at Stockholm in 1972 and in the IMCO Conference in 1973.[12]

On the question of scientific research, the Sub-Committee is in a more fortunate position. The present law is being fully explored in the Specialized Agencies and a number of patterns have been suggested to safeguard freedom of scientific investigation.[13] The remaining difficulties are largely political and a suitable diet for Sub-Committee III.

III: THE CONFERENCE—SEVEN MAJOR TOPICS

The 1973 Conference will be concerned with seven major topics: (1) The Seabed Regime, (2) The Continental Shelf Regime, (3) The Territorial Sea Regime, (4) The Regime of the High Seas, (5) Fishing and Conservation of Living Resources, (6) Scientific Research, and (7) Preservation of the Marine Environment. These seven topics have been adopted as the main heads of classification for the following analysis. Since, however, there is such a close interrelationship between these various questions, some aspects of particular topics can be more conveniently dealt with in the context of related questions falling under a different head.

The Seabed Regime

Since the General Assembly has instructed the Seabed Committee to prepare draft treaty articles embodying an international regime for the seabed on the basis of the Declaration of Principles,[14] consideration of failure to agree on a seabed regime is tantamount to consideration of the likely fate of these Principles, including any residual effect their adoption may have on the law, even if the international community is unable to translate them into binding legal form.

The following analysis of the Declaration is in three main parts. The first part (1) is concerned with the legal effect of the Declaration, which, it will be recalled, was adopted in the form of a resolution of the UN General Assembly.

The Declaration is perhaps most easily understood and analyzed if it is considered as being concerned with two fundamental concepts. The other parts accordingly consist of an analysis of the detailed provisions of the Declaration under these heads: (2) the definition of the areas of the seabed and the ocean floor beyond the limits of national jurisdiction, and (3) the common heritage of mankind.

The objects of the examination, which will also extend to recent trends in State practice, are (a) to clarify the meaning of the Principles; (b) to consider whether they have any immediate or potential future law-making effect, and (c) to consider the likely course of State practice in the event of a failure to agree in 1973.

Legal Effect of Declaration of Principles

> The Declaration cannot claim the binding force of a treaty internationally negotiated and accepted, but it is a definite step in that direction and . . . it has—if I may adapt the words of Walt Whitman—that fervent element of model authority that is more binding than treaties.
>
> Mr. Amerasinghe, speech in General Assembly, December 18, 1970 (A/PV. 1933, p. 100).

Even if the General Assembly were to decide in 1972 to call off the 1973 Conference, the international community would still have the Declaration of Principles Governing the Seabed and the Ocean Floor and the Subsoil thereof beyond the Limits of National Jurisdiction adopted by the General Assembly on December 17, 1970. An analysis of the legal effect of this Resolution is therefore necessary in any study of the consequences of failure to agree in 1973. It may at the same time help to throw some light on the ambiguities and deficiencies of that Resolution.

The law relating to the legal effect of General Assembly resolutions is not altogether undisputed[15] and it may, therefore, be useful to preface the analysis of this Resolution with a short statement of the writer's position:

1. Subject to certain exceptions such as in relation to the admission of new members and the exercise of budgetary powers—where a power of *decision* is enjoyed—General Assembly resolutions are not legally binding. They are mere *recommendations*.

2. There is, however, no reason why a General Assembly resolution should not provide the vehicle through which binding obligations are created by consent, acquiescence or other form of estoppel. It is always a question of interpreting the intent of the States concerned in accordance with the criteria of good faith and reasonableness. It is arguable, for example, that members voting in favor of the Resolution affirming the Nuremberg Principles (1946) or the Declaration of Legal Principles Governing Activities in Outer Space (1963) are estopped from contesting

[12] Pursuant to IMCO Resolution A. 176 (VI), October 21, 1969, IMCO has convened an International Conference on Marine Pollution to prepare "a suitable international agreement for placing restraint on the contamination of the sea, land and air by ships, vessels and other equipment operating in the marine environment."

[13] See E. D. Brown, "Freedom of Scientific Research and the Legal Regime of Hydrospace," 9 *Indian Journal of International Law* (1969), pp. 327-380; W. T. Burke, "International Legal Problems of Scientific Research in the Oceans," 1967, and "Marine Science Research and International Law," Law of the Sea Institute Occasional Paper No. 8, 1970; and M. B. Schaefer, "Freedom of Scientific Research and Exploration in the Sea," IV *Stanford Journal of International Studies* (1969), pp. 46-70.

[14] A/RES/2750 (XXV), Para. 6.

[15] See G. Schwargenberger, *A Manual of International Law*, 1967, pp. 289 and (for further literature) pp. 592-593.

the rules affirmed in these instruments. By the same token, those voting against such resolutions can hardly be considered bound by them unless the resolution is creative of a new rule of international customary law by virtue of its expression of the *opinio juris* of the generality of States.

3. Even in the case of Declarations such as that under consideration, much will depend on the level of abstraction at which the Declaration is formulated. As a general rule, it may be said that precise and unambiguous provisions are more likely to be law-creating than more generally and loosely formulated propositions.

Unfortunately, many of the provisions of the Declaration of Principles Governing the Seabed are stated at a high level of abstraction and are unlikely therefore to be creative of precise legal obligations. Moreover, the fact that 14 States abstained and that many others made interpretative statements during the course of its preparation counsels caution in attributing any law-creating effect *erga omnes*.

If, in an attempt to determine the intent of member States, an examination is made of the record of the First Committee meetings at which agreement was finally reached on the text of the Declaration, it becomes quite clear that there is a wide diversity of views on the status of the Declaration.

Looking first at the Declaration as a whole, as has been mentioned, 14 States abstained when the Declaration was adopted by the General Assembly.[16] Moreover, the draft adopted by the First Committee was itself the result of a majority vote (90 to 0, with 11 abstentions) rather than of a consensus.[17] It was hardly surprising, therefore, that the Bulgarian delegation in the First Committee should have considered that

> the presentation by this Committee of a document on which many delegations have serious reservations and objections, and which does not result from a consensus, will neither facilitate our work nor contribute to the solution of the problem.[18]

The Soviet delegation, in announcing that it too would abstain from the vote in the First Committee, also stressed that "naturally approval by the General Assembly of this draft cannot impose legal consequences on States since such decisions are merely of a recommendatory character."[19]

The majority even of those States voting in favor of the Declaration were equally careful to limit the significance of the Declaration. Thus, the United Kingdom delegation expressed two general reservations:

> First, like any other resolution of the General Assembly, the draft declaration has in itself no binding force. Secondly and arising from this, the draft declaration of principles must be regarded as a whole and interpreted as a whole; and as a whole it has no dispositive effect until we have agreement on an international regime and, as part of that agreement, we have a clear, precise and internationally accepted definition of the area to which the regime is to apply. My delegation entirely endorses the view expressed by other delegations that it is not the purpose of the draft declaration of principles to establish an interim regime for the seabed.[20]

Mr. Galindo Pohl (El Salvador), who played an important part in the preparatory work which preceded the adoption of the Declaration, confirmed that it was clearly understood in the informal negotiations which paved the way for the adoption of the final compromise text, that it was not intended that the Declaration should provide a provisional regime pending the conclusion of a definitive conventional regime.[21] He added, however, that "of course, those who support it must obviously be deemed to be prepared to abide by its content in good faith and to ensure that the regime will be consistent with those principles."[22]

Given the ambiguity of the Declaration, such an obligation does not amount to very much. Perhaps the most accurate description was given by Sir Laurence McIntyre (Australia) when he expressed his country's understanding of the principles as "general guidelines for the establishment of a regime for the sea-bed and as an earnest desire of the great majority of members to have a regime; but we would not see them as having any binding or mandatory effect upon States in the meantime."[23] Sir Laurence went on to make it clear that the Declaration

> should not prejudge or restrict the scope of matters that in fact can be determined effectively only through the negotiation of an international agreement or agreements at a conference on questions of the law of the sea and the seabed. A declaration of principles cannot be used as a substitute for the decisions that will ultimately emerge from such a conference.[24]

The Kuwaiti delegation dissented from the view that the principles were "mere guidelines for drafting a treaty establishing the regime":

> We rather believe that they constitute basic and fundamental principles from which no departure would be allowed and which should be faithfully

[16] A/PV. 1933, p. 96.

[17] A/C. 1/PV. 1798, December 15, 1970, p. 37.

[18] A/C. 1/PV. 1799, pp. 23-25.

[19] A/C. 1/PV. 1798, p. 32.

[20] A/C. 1/PV. 1799, p. 6.

[21] A/C. 1/PV. 1781, pp. 11-12.

[22] *Ibid.*, p. 11.

[23] A/C. 1/PV. 1777, p. 27.

[24] *Ibid.* See similar statements by *inter alia*, *Canada* — "balanced and comprehensive enough to serve as the foundation and framework for an international regime" (A/C. 1/PV. 1779, p. 8); *Norway* — The principles "are indications . . . of the rules and the provisions of international law . . . To make them applicable and enforceable . . . we shall later have to hammer out detailed legal provisions". (A/C. 1/PV. 1774, pp. 18-20); and *Peru* — "only a basis for the preparation of a regime and must not be interpreted as an interim regime" (A/C. 1/PV. 1777, p. 18).

> reflected in the basic international treaty which will be the constituent instrument of the regime.[25]

Given the level of abstraction of the Declaration, it is arguable that even in accordance with the Kuwaiti view, the Principles impose very few limitations on the scope of the Conference deliberations. But, in any event, the Kuwaiti view is not typical of the statements made in the First Committee.

Definition of Area of Seabed and Ocean Floor beyond the Limits of National Jurisdiction

Preambular Paragraph 2 of the Declaration embodies the only reference to the definition of the area to which the Principles apply:

> *Affirming* that there is an area of the seabed and the ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction, the precise limits of which are yet to be determined.

The fact that this proposition is "affirmed" in the Preamble rather than "solemnly declared" in the text would seem to be quite irrelevant so far as its legal effect is concerned. It is not an isolated statement of a novel proposition but rather the formal affirmation of a legal principle which has been in the process of crystallization since at least 1967.

> The *Ad Hoc* Committee, and after it the permanent Committee of the seabed, proceeded on the basis of the working hypothesis that there was such an area and, as the discussions and consultations gradually evolved, that hypothesis became a generally accepted postulate, to be finally established as a juridical principle.[26]

The Belgian delegation shared the preference of the Canadian delegation "that such a fundamental principle be incorporated in appropriate terms in the operative part of the draft declaration."[27] As Mr. Kaplan (Canada) recognized, however, "for some delegations, while this is a state of facts which must be recognized, it does not constitute a legal principle."[28]

What is the substance of this alleged legal principle? No more, it would seem, than a rejection of the most extreme interpretation of Article 1 of the Geneva Convention on the Continental Shelf (1958), under which no limit is recognized to the elasticity of the criterion of exploitability.[29] In accordance with this newly matured norm, the division of the ocean bed between coastal States on the median line principle would clearly be contrary to international law. It is hardly necessary to add that this new rule is, pending its further refinement, no more satisfactory and, indeed, as ambiguously elastic and open-ended as the said Article 1 itself.

The problem of delimiting "the seabed and the ocean floor and the subsoil thereof beyond the limits of national jurisdiction" is strictly speaking a problem of submarine boundaries. Nevertheless, a politically realistic discussion of the question must reflect the close interrelationship among the various jurisdictional claims which have been asserted for a variety of functional ends—those relating to continental shelf resources, fisheries, security, pollution control, and contiguous zone control over customs, health, immigration and sanitary matters.

Discussion of the question in such a wide context is necessary for several reasons. A growing number of States are asserting very extensive territorial sea claims and, of course, as the Peruvian and Uruguayan delegations in the First Committee have made clear,[30] when such States express themselves in favor of the area beyond national jurisdiction being the common heritage of mankind, they are speaking about the seabed area beyond their—in some cases—200-mile territorial sea claims. Moreover, there is every likelihood, failing a settlement in the near future, that claims prompted by a particular functional need (relating, e.g., to seabed resources, fisheries or pollution control) will be asserted as comprehensive jurisdictional claims rather than as functionally limited claims. Finally, ideas such as Ambassador Pardo's for one unified limit of national jurisdiction for all purposes and similar less far-reaching proposals require a comprehensive review of all jurisdictional claims.

If one examines the views on the desirable location of the limits of national jurisdiction expressed in the First Committee's crucial meetings during the General Assembly's Twenty-fifth Session and in the March 1971 meetings of the Seabed Committee—meeting for the first time as a preparatory committee for the 1973 Conference—two of the most striking features are the still very wide variety of views on this fundamental question and the tendency of a great many delegations to treat this question as an integral part of the more general question of maritime limits.

A few quotations from the records, grouped according to the attitudes of the States concerned, may help to illustrate and develop these points. Five main, and in some cases overlapping, groups are identified: (1) extensive national limits advocates, (2) States with open options preserved, (3) advocates of functionally differentiated limits, (4) satisfied States, and (5) landlocked and shelf-locked States. Mention must also be made of the proposals of Malta and the United States.

Advocates of Extensive National Limits

For a review of recent trends towards the extension of national jurisdiction and a presentation of its rationale as conceived by at least some of the States concerned, it is difficult to improve upon the words of the Peruvian representative, Mr. Arias Schreiber, speaking in the Seabed Committee on March 15, 1971:

> The thesis defended by the three nations of the

[25] A/C. 1/PV. 1780, p. 31.

[26] A/C. 1/PV. 1788, p. 23.

[27] A/C. 1/PV. 1779, p. 3.

[28] *Ibid.*, p. 4.

[29] See for full discussion of Article 1, E. D. Brown, *The Legal Regime of Hydrospace*, (Washington, D. C.: Woodrow Wilson International Center for Scholars, 1971), Chap. 1.

[30] Peru (A/C. 1/PV. 1788), p. 3; Uruguay (A/C. 1/PV. 1773), p. 42.

eastern South Pacific—Chile, Ecuador and Peru —with the support of very few at the Geneva Conferences has evolved into a doctrine shared today by the majority of *South American* States and half of *Central America*. El Salvador had adhered to the 200 mile regime since 1950. Likewise Nicaragua in 1965, Argentina in 1966, Panama in 1967, Uruguay in 1969 and Brazil in 1970, convinced that such a regime is the most reasonable and adequate for the protection and exploitation of their resources, in the face of the appetite of concerns from distant nations anxious to operate off foreign coasts, with prejudice to riparian States. And *Canada*, in 1970, widened its jurisdiction to 100 miles in the Arctic Archipelago, in order to control the dangers of contamination, and also established fisheries closing lines at the entrance to various zones, in which she considered it necessary to reserve the resources for Canadian nationals.

12. In *Asia*, six countries have extended their jurisdiction beyond 12 miles; the Republic of Korea, in 1952, established an exclusive fishing zone between 20 and 200 miles wide; India, in 1956, established a fisheries conservation zone of 100 miles in addition to its territorial waters; Ceylon and Pakistan adopted similar measures in 1957 and 1966 respectively. On the other hand, the Philippines and Indonesia adopted the Archipelago concept, in conformity with which their territorial waters extend to the base lines of the most distant islands, in order to ensure a unity which can hardly be contested.

13. In *Africa*, six nations have adopted national jurisdictions beyond 12 miles: Ghana, in 1963, set 100 miles as a conservation zone for fisheries; Guinea, in 1964, extended to 130 miles the limit of its territorial sea; in 1967, the Cameroon National Assembly authorized the addition of 18 miles to its territorial sea; Senegal, in 1968, established a zone of 18 miles for fishing on an exclusive basis; in the same year, Dahomey extended its jurisdiction over the subsoil of the continental shelf to 100 miles from its coasts; and Gabon fixed the width of its territorial waters at 25 miles in 1970.

14. *Aside from the aforementioned nations*, several others are considering the extension of their national jurisdiction, either with a similar scope to that of Latin American nations up to where geography allows, or adopting special formulae such as exclusive administration of fisheries as far as the geomorphological limits of the continental shelf.

15. *As regards the remaining States*, many of them have widened the limits of their national jurisdiction from 3 or 6 miles to 12, forsaking the positions for which they fought so hard at the 1958 and 1960 Conferences.[31]

Mr. Arias Schreiber went on to restate "the principles on which our conception of the new law of the sea stands":

—Coastal States have the right to dispose of the natural resources existing in front of their coasts, in order to promote their maximum development and the subsequent welfare of their peoples.

—They also have the right to adopt the necessary rules to prevent pollution and other dangerous and harmful effects that may result from the use, exploration and exploitation of the marine environment adjacent to their territories.

—In order to ensure both purposes, and in the exercise of their sovereignty, it is incumbent upon the coastal States to establish the limits of their maritime jurisdiction in accordance with reasonable criteria, having regard to their geographical and ecological characteristics and the need to make use of their resources.

—Within the limits of their jurisdiction, coastal States are entitled to dictate rules governing fisheries and marine hunting, as well as the exploitation of the seabed and its subsoil.

—Also within those limits, it is their right to authorize, supervise and participate in the scientific research activities that other States or international organizations and institutions may wish to undertake, and to receive the results and samples of that research.

—In the exercise of such rights, the identical rights of States neighboring and riparian to the same sea must be mutually respected, as well as freedom of communication without distinction as to flag.

—As a consequence of the third of the abovementioned principles, and in view of the diversity of realities and needs to which it refers, it would be inadequate and unjust to adopt a single limit of national jurisdiction for all States, and there is no other acceptable solution but to recognize a certain plurality of regimes, possibly on a regional basis.[32]

The Latin American States protest that their extensive claims do not imply that they do not favor the concept of the common heritage of mankind in relation to the area beyond national jurisdiction. Indeed, the Uruguayan representative in the First Committee explained that, since the sovereign rights of a coastal developing State in its 200-mile territorial sea were no different from sovereign rights to land territory, the need remained for it to enjoy adequate and effective international cooperation in the area beyond.[33]

It should be noted that it is stressed in most Latin American statements (a) that the limits claimed are set in accordance with the peculiar geographical, geological and biological characteristics of the State concerned and in accordance with the reasonable utilization of their natural resources—thus implying a pluralistic approach to limits; (b) that claims are without prejudice to freedom of navigation and overflight—thus indicating that such claims are not traditional

[31] Text of speech of March 15, 1971, pp. 2-3, emphasis added.

[32] *Ibid.*, pp. 5-6.

[33] A/C. 1/PV. 1773, p. 42.

territorial sea claims; and (c) that they would favor the inclusion of regional or sub-regional systems in any international machinery which might be set up.[34]

Recent developments in the State practice of the developing States in regional organizations suggest that, as time goes by—and especially failing any early agreement, an increasing number of States may be expected to follow the lead of the Latin American States.

On May 8, 1970, nine Latin American States (the "Montevideo Group"), all of whom have "extended their sovereignty or exclusive rights of jurisdiction" out to 200 miles (Preamble), adopted the *Montevideo Declaration on the Law of the Sea*.[35] The six "Basic Principles" declared in this document included "the right to establish the limits of their maritime sovereignty and jurisdiction in accordance with their geographical and geological characteristics and with the factors governing the existence of marine resources and the need for their rational utilization." The expressed intention of the signatory States "to co-ordinate their future action with a view to defending effectively the principle embodied in this Declaration" was partly implemented by the convocation of a further Latin American Meeting on Aspects of the Law of the Sea in Lima in August, 1970. Attended by 20 Latin American States, with eight other States represented by observers, the meeting produced a *Declaration of Latin American States on the Law of the Sea*,[36] which incorporated as one of five common principles "the right of the coastal States to establish the limits of its maritime sovereignty or jurisdiction in accordance with reasonable criteria, having regard to its geological and biological characteristics, and the need to make rational use of its resources."

The fact that the Lima meeting was attended by observers from Canada, Costa Rica, Iceland, India, Senegal, South Korea, the United Arab Republic and Yugoslavia suggested that the Montevideo Group were engaged in a two-pronged strategy to consolidate their own doctrine in Latin America, while at the same time coordinating their efforts to win further international support for a 200-mile limit. This impression is confirmed by reports of a second Lima Conference on the Law of the Sea held by the Montevideo Group on January 12-15, 1971. According to "reliable sources," the Group concentrated on coordinating their efforts to gain additional international support for the 200-mile thesis prior to the 1973 Conference.

A few days later, from January 18-28, 1971, a delegation of the Montevideo Group attended the Colombo Meeting of the Afro-Asian Legal Consultative Committee at the invitation of that organization. The sympathy for the views of the Montevideo Group suggested by this invitation is further reflected in the following passages from the Report of the Sub-Committee on the Law of the Sea of the Afro-Asian States:

> The majority of Delegations indicated that a State had the right to claim certain exclusive rights to economic exploitation of the resources in the waters adjacent to the territorial sea in a zone the maximum breadth of which should be subject to negotiation.[37]

And again

> Some Delegations proposed that States should abandon the depth plus exploitability criterion for the limits of national jurisdiction and consider recognizing a limit of 200 miles to be measured from the coastal State's baseline as this, in their view, was the most equitable criterion and hence most likely to command the support of the majority of the international community. A number of members were inclined to view the proposal favorably and considered it desirable to study the concept further.[38]

It must be added that these quotations have been selected merely to indicate that there are some signs of a measure of support for the Montevideo position in other parts of the developing world. It is not suggested that they are representative of the views of the Colombo States as a whole.

Finally, under this head, the writer has received uncorroborated reports that Colombia and Guatemala are now seriously considering the extension of their limits to 200 miles and that even Mexico is beginning to have second thoughts.

States with Open Options

One important inhibition remains for some developing countries—doubt as to where their best interests lie. Some at least of the developing coastal States are prepared to support efforts to establish an international zone as large as possible provided a strong international regime is also established, guaranteeing them participation in the management of, and an equitable share in the benefits from, the exploitation of the resources of the zone. Failing such guarantees—or, in the event of a breakdown in the negotiations—serious consideration will be given to the establishment of wider limits of national jurisdiction. The three States of the Indian sub-continent, Ceylon, India and Pakistan, have all made statements to this effect.

[34] As a result of an amendment co-sponsored by Malta and Turkey, preambular paragraph 5 of A/RES/2750 refers to "the need for the early and progressive development of the law of the sea, *in a framework of close international co-operation*" (emphasis added). The intention behind the words underlined was to stress "that the development of international law . . . should take place, not unilaterally or regionally, but in a framework of international co-operation" (Ambassador Pardo, A/C. 1/PV. 1799, p. 102). The amendment was adopted by 46 to 37, with 31 abstentions, the negative votes including those of 19 Latin American States.

[35] For text, see 64 *American Journal of International Law* (1970), pp. 1021-1023, or IX *International Legal Materials* (1970), p. 1081.

[36] For text, see UN. Doc. A/AC. 138/28, August 14, 1970, or IX I.L.M. (1970), pp. 207-214.

[37] Asian-African Legal Consultative Meeting, Twelfth Session, Colombo, January 18-27, 1971, *Report of the Sub-Committee on the Law of the Sea* (mimeo.), at p. 2.

[38] *Ibid.*, at p. 3.

As the Ceylonese delegate put it in the Seabed Committee:

> The extent of the national jurisdiction which Ceylon might claim or recognize would depend on the existence of a viable international authority with comprehensive powers and acceptable decision-making processes. If such an authority were established and offered the prospect of real benefits to the international community and particularly to the developing countries, his Government would be willing to consider relatively narrow limits of national jurisdiction and would hope to be able to persuade the overwhelming majority of countries to that view, whatever their current claims. On the other hand, if agreement could only be reached on machinery of limited scope—a registry of claims, for example, which left the international area a prey to unrestrained exploitation for selfish ends—Ceylon might also find itself compelled to espouse selfish ends, to acquire the means of achieving them by private contract and to lay claim to areas of national jurisdiction commensurate with its aspiration.[39]

Similarly, the Indian representative said that

> Developing countries would have to consider carefully whether their long-term interest in maximising their shares in the wealth of the sea-bed would best be served by claiming large national areas or by accepting moderate limits to national areas and placing the responsibility for regulating exploitation of the sea-bed on international machinery with comprehensive powers.[40]

Many of the developing States would include among the essential duties of such an international organization, the responsibility to ensure that seabed exploitation did not cause market fluctuations detrimental to their economies. To mention this fact alone is to emphasize the difficulty of establishing a regime satisfactory to the developing States.

Finally, the Pakistani Government has made it clear that it will be prepared to take a final position on limits only after the essentials of the legal regime have been articulated.[41]

Advocates of Functionally Differentiated Limits

The preference of the Latin American States for a pluralistic approach to maritime boundaries has already been noted. It remains to mention the support for this principle expressed by a number of other States or implied by their practice.

> Speaking in the Seabed Committee in March, Mr. Mojsov (Yugoslavia) said that scientific and technical progress had led to an exploitation which amounted to a devastation of the living resources of the sea, to a growing deterioration of the environment, and to increased security risks for coastal States. The traditional rules of the law of the sea no longer afforded protection against all those threats and certain States, which thought themselves more threatened than others, had felt obliged to take unilateral measures of protection against the abuses of modern technology. Although his country had not taken such action itself, it realized that such unilateral measures were not arbitrary but were justified because, without them, the vital economic and political interests of the countries concerned would be in jeopardy. Such unilateral measures, which were not disproportionate to the dangers faced by the countries concerned, were the only remedy at present available. They had become an international reality which should be taken into account.[42]

After pointing out that "without the economic resources derived from fishing in the waters above the continental shelf, Iceland would simply not be habitable,"[43] Mr. Mojsov went on to defend unilateral measures under present circumstances in these terms:

> Despite their attraction for lawyers, uniform solutions were not adequate in the present instance. It was necessary to assess the economic problems of certain regions which were dependent on resources situated beyond what might be regarded as the reasonable limits of national jurisdiction, and seek appropriate solutions to enable the countries concerned to live and develop. The importance of the unilateral measures taken by certain countries was therefore such that his delegation felt that it could not request those countries even to discuss those measures, let alone renounce them, until an international regime had at least been outlined which offered them equivalent safeguards from the economic and security points of view.[44]

The Danish delegation in the Seabed Committee adopted a somewhat similar approach and favored "differentiated solutions":

> In the opinion of the Danish Delegation the way ahead may be found in systems less rigid than those we may have imagined thus far. In our international relations we all recognize that developing areas exist in the World, and we have shown our readiness to assist in remedying the differences in capabilities. If nations in the same way were willing to recognize that there are countries and isolated areas of countries which are heavily dependent upon the resources of the sea it might be possible to find differentiated solutions which in the long run would be to the benefit of all countries. Such solutions would presuppose, however, that due consideration is given to the interests and rights of other countries in the use of the sea.[45]

The most extended development of the functional approach in the United Nations framework has been that of Professor Riphagen of the Netherlands. His fundamental proposition is that the time has come to reject the traditional approach to the law of the sea, based on the twin concepts of territorial jurisdiction and the national flag. As he puts it,

[39] A/AC. 138/SR. 47, p. 2, March 15, 1971.

[40] A/AC. 138/SR. 48, p. 3, March 16, 1971.

[41] A/AC. 138/SR. 54, p. 13, March 22, 1971.

[42] *Ibid.*, p. 10.

[43] *Ibid.*

[44] *Ibid.*, p. 11.

[45] Statement by Mr. P. Fergo on March 18, 1971, p. 6.

> Not every state has a coast line, and among those who have, there is a wide variety in length, configuration and mass of seas and seabed adjacent to it. The formal equality of states does not correspond to equality of opportunity. And then, if even in respect of the land modern thought recognizes a "crisis of the territorial state," how much more dubious is the adequacy of a system of rigid territorial division in respect of the seas? In short, it becomes increasingly necessary to follow a more *functional* approach and accordingly, to *organize*, on the international plane, the uses of the seas in order to give reality to the concept of common property of mankind.[46]

Professor Riphagen asks, for example, whether the modalities of the right of innocent passage

> are a sufficiently clear and balanced expression of the functional limitations of both the right of security protection and the right of navigational transit. This question becomes increasingly important as States—often for quite different reasons not connected with their security—claim larger belts of territorial sea. It would seem necessary to explore the possibilities of a more adequately formulated group of rules accommodating the interest of navigation—both sea and air—and security.[47]

Similarly, in relation to living resources, his delegation was in favor of exploring the possibilities of supplementing the substantive rules and of strengthening the machinery, in order to arrive at international measures of conservation which duly recognize the preferential requirements of both States which are dependent upon fisheries, and States which, owing to their social and economic structure and the stage of their development are in need of protective measures for their fishing activities.

An essential difference between the Latin American and the Riphagen approach is that the latter is firmly opposed to *unilateral* action and in favor of an *international* system of collective management, adjustment and allocation.

It is clear from the international debate in the United Nations that much sympathy is felt for the case which Iceland has been skillfully canvassing over the years. In the recent First Committee debate it was put as follows: "In the case of Iceland, jurisdiction and control over the continental shelf *and the waters above the shelf* are reasonable and just and should be recognized by the international community."[48] As the Icelandic statement goes on to make clear, it is less jurisdiction over the waters which is demanded than "exclusive jurisdiction over the coastal fisheries. Such a jurisdiction is based on obvious economic justice."[49]

In a subsequent statement in the Seabed Committee in March 1971, the Icelandic representative reminded the Committee of the substance of the communication which his Government had addressed to the International Law Commission in 1952. *Inter alia* it had been argued that

> Iceland was itself barren and almost all necessities had to be imported and financed through the export of fisheries products. It could truly be said that the coastal fishing grounds were the *conditio sine qua non* for the Icelandic people, since they made the country habitable. It was for that reason that the Icelandic Government considered itself entitled, and indeed bound, to take all necessary steps on a unilateral basis to preserve those resources; and that was in fact what it was doing. It considered it was unrealistic that foreigners could be prevented from pumping oil from the continental shelf, but that they could not in the same manner be prevented from destroying other resources which were based on the same seabed. It did not maintain that the same rule should necessarily apply in all countries. It felt rather that each case should be studied separately and that the coastal State could, within a reasonable distance from its coast, determine the necessary measures for the protection of its coastal fisheries in view of economic, geographic, biological and other relevant considerations.
>
> The relevant local factors in Iceland would, generally speaking, coincide with the outer limits of the continental shelf or platform at a depth of 400 metres—which in some areas would take the limit to a distance of 60-70 miles from the shore. Other countries might consider that the protected zone should be even wider. It was for the coastal State to determine the limits on the basis of a realistic appraisal of local conditions.[50]

Although the Icelandic case is similar in many ways to the Latin American argument, it differs from it in that Iceland rejects as unrealistic the idea that the general maximum for the territorial sea should be set at 12 miles, with more extensive claims being dealt with on a regional basis. In Iceland's view, the general rule must include the solution of special cases. As Mr. Anderson put it, "The real problem arose precisely when countries in a given region refused to give up their claims, and all wanted for example to fish off the coasts of one country in the region."[51]

Satisfied States

Reference has already been made to the cautious statement of the United Kingdom that the Declaration has "no dispositive effect until we have agreement on an international regime and, as part of that agreement, we have a clear precise and internationally accepted definition of the area to which the regime is to apply."[52] In the same vein, Venezuela has reserved "all the rights which might devolve on it in accordance with the Geneva Convention and the present standards of international law. Naturally, these rights cannot be

[46] Statement in Sea-Bed Committee, March 1971, p. 3.

[47] *Ibid.*, p. 7.

[48] A/C. 1/PV. 1782, p. 42, emphasis added.

[49] *Ibid.*, pp. 42-45. See also A/C. 1/PV. 1778, pp. 6-10.

[50] A/AC. 138/SR. 49, p. 3.

[51] *Ibid.*, p. 4.

[52] A/C. 1/PV. 1799, p. 6.

changed or undermined without the express and formal consent of their title-holders."[53]

While a number of other States have referred to desirability of proceeding on "the basis of existing international law, including the 1958 Geneva Convention," in determining the outer limit of the continental shelf[54] or have stressed the need to confine the Conference to questions left unsettled in 1958,[55] by far the most consistently conservative attitude has been displayed by the Soviet bloc.

It is clearly of the utmost importance and possibly a *sine qua non* of a new regime that the Soviet Union should be a party to it. Although there is some evidence of a softening[56] of the hard line attitude displayed even as recently as the First Committee meetings in December 1970, the outlook is not encouraging. Seven Soviet bloc votes were cast against Resolution A/RES/2750 C (XXV), — the decision of the General Assembly to call a Law of the Sea Conference in 1973— and the same States abstained in the vote on the Declaration of Principles.

The Soviet attitude on maritime limits was made very clear in the First Committee. Referring to the question of Convening a Conference, the Soviet representative said:

> The Soviet delegation considers that such a conference can be justified only if it is convened to settle a limited number of the most urgent matters pending in the field of the law of the sea . . . for example, the establishment of the limits of the territorial sea and the related matter of passage through straits used for international navigation, the granting to coastal States of some special fishing rights beyond the limits of the territorial sea, as well as the question of a more precise definition of the outside limits of the continental shelf.[57]

Warning against "general and ill-defined concepts relating to the common heritage of mankind"[58] and assigning a low priority to the solution of problems relating to the seabed because of the "relative remoteness of the prospects for the exploitation of the mineral resources of the seabed beyond the limits of national jurisdiction,"[59] the Soviet representative stated that, "in the view of my delegation, the question of the outer limits of the continental shelf is one of the most urgent of all questions."[60]

In a subsequent intervention the Soviet representative described the draft resolution on the Conference as a "draft totally [ignoring] the position of a large number of States which consider that the solution of matters such as the clear-cut delimitation of the limits of national sovereignty is very important"[61] and as reflecting "the attitude of a group of States who are in favor of reversing the existing Geneva Conventions on the law of the sea."[62]

In short, the Soviet Union is very largely a satisfied power so far as the law of the sea is concerned and would prefer to secure its remaining important interests by negotiating limited amendments of, or additions to, the Geneva Conventions.

It will be noted that the Soviet Union nearly always refers to the need to determine the outer limits of the continental shelf rather than the area beyond the limits of national jurisdiction. There is a subtle difference in emphasis here. The Soviet bloc is concerned only with a boundary—a boundary marking the extremities of an area the legal regime of which is already settled. The alternative language, referring to "the area beyond the limits of national jurisdiction," associated as it is with the "common heritage of mankind" concept, implies a much more far reaching inquiry, perhaps extending—as the United States Draft Convention of August 3, 1970 does—to a rejection of both the terminology and substance of the Geneva Convention's definition of the continental shelf.

While the conservatism of the Soviet attitude is quite clear, her views on the precise location of the outer limit of the continental shelf are difficult to discern. The only indication which this writer has noticed is contained in a Ukrainian statement to the Geneva meeting of the Seabed Committee in March 1971. The Ukrainian representative

> had noted with interest the statements by a number of delegations at the twenty-fifth session of the General Assembly in favor of defining the continental shelf on the basis of the existing criterion of a depth of 200 meters, which was the average limit of the outer edge of the geological shelf, with the criterion of a fixed distance from the base line for calculating the breadth of the territorial waters of maritime States. That would make more precise the provision contained in the Geneva Convention of 1958 on the continental shelf concerning the areas contiguous to the shore. The Committee should carefully consider that point of view when it started work on the problem.[63]

Land-locked and Shelf-locked States

As the Afghanistan delegation noted in the First Committee, the interest of land-locked States in the seabed beyond national jurisdiction is two-fold, as it relates, first, to a right of participation and, secondly, a

[53] A/C. 1/PV. 1788, p. 43.

[54] Greece, A/AC. 138/SR. 47, p. 9.

[55] Japan, A/C. 1/PV. 1796, p. 56.

[56] In that the Ukrainian delegation now seemed ready in the March 1971 meeting of the Sea-Bed Committee to accept that "Work on those two closely linked aspects [limits and conventional regulation of sea-bed exploitation in the area beyond] should be carried out simultaneously in order to obtain acceptable decisions" (A/AC. 138/SR. 50, p. 15).

[57] A/C. 1/PV. 1777, p. 47.

[58] *Ibid.*, pp. 38-40.

[59] *Ibid.*, p. 37. See, however, text below at note 110 for reference to Soviet bloc's recently established International Co-ordinating Center of Marine Exploration.

[60] *Ibid.*, pp. 43-45.

[61] A/C. 1/PV. 1794, pp. 68-70.

[62] *Ibid.*, p. 67.

[63] A/AC. 138/SR. 50, p. 16.

right to benefits.[64] From both points of view it is clearly in the interests of these States to maximize the area to which the international regime will apply and recognition of this fundamental fact obliged Bolivia to cast a negative vote against the Lima Declaration of Latin American States on the Law of the Sea, adopted in August 1970.[65]

On December 17, 1970, the General Assembly adopted Resolution A/RES/2750 B (XXV), *inter alia* requesting the Secretary-General to "report on the special problems of land-locked countries relating to the exploration and exploitation of the resources of the seabed and the ocean-floor, and the subsoil thereof, beyond the limits of national jurisdiction." The inclusion in the resolution of the passage quoted above was opposed by the delegations of Cameroon[66] and Nigeria[67] on the grounds that it discriminated in favor of a certain group—land-locked States—and constituted a dangerous precedent of differentiating between different groups of developing States. The fact that only two States voted against this clause[68] and that both were African developing countries understandably caused some bitterness.

The great majority preferred the view expressed by Mr. Koh (Singapore) that the resolution was not discriminatory because it justifiably differentiated two categories of countries that are different.[69] The resolution also enjoyed the support of the shelf-locked States and of what the Belgian delegate called the sea-locked States, that is, small island States such as Haiti which have no opportunity to extend their territorial sea because of the presence of other States in their immediate vicinity.[70]

As the Austrian[71] and Singapore[72] delegations have pointed out, land-locked and shelf-locked countries have no means of balancing the unilateral extensions of jurisdiction which are open to both States with broad continental shelves and even to States which do not have broad shelves but do face the open oceans and can therefore envisage extensive seabed claims.

The voting strength of these States is sometimes overlooked. According to a recent calculation, of a total of 146 States, 31 are land-locked and 23 are shelf-locked.[73] On the other hand, the population and power of these States are not great and, given also their weak negotiating base in the present law, their opposition to wide national limits could probably be assuaged by adequate provision for limitations on the exclusive rights of coastal States—perhaps in the form of a levy payable to an international fund.

The Maltese Proposal

Introducing yet another variant on the broad national jurisdiction theme, Ambassador Pardo has advocated that the various existing limits of national jurisdiction should be replaced by one line located at the point where the special interests of the coastal State merge with the general interest of the international community. In his statement to the March 1971 first preparatory meeting of the Seabed committee, Ambassador Pardo tentatively identified this line as one at a distance of 200 miles from the coast.[74]

The United States Draft Convention

Finally, it is hardly necessary to remind this audience of the advocacy by the United States in its draft Convention of August 3, 1970 of a national zone out to 200 meters, complemented by an International Trusteeship Zone extending to the seaward limit of the continental margin. Not only because of your familiarity with this proposal but also because it is apparently the object of agonizing reappraisal at the moment, it is not proposed to discuss the American position at this point, though reference will be made to it in another context.

Conclusions

Returning now to the questions posed at the beginning of this section:

Clarification of Declaration of Principles. It has been possible to clarify the definition of the area beyond national jurisdiction only in the sense that the variety in State attitudes and the close relation between this and other maritime boundaries have been exposed.

Immediate or potential law-making effect. The limited law-making effect of the affirmation that there is such an area beyond national jurisdiction has already been commented upon.[75]

Probable effect of failure to agree in 1973. Immediate failure to agree upon limits will not necessarily close the door to later agreement but it may well close some of the currently available options.

Despite frequent, strident warnings that there is a clear trend towards the carving up of the oceans between riparian States, the facts of the current situation, some of which are summarized in the following tables, are less dramatic.

As Tables 1 and 2 show, there is a clear upward trend in territorial sea claims but, except for the seven Latin American 200-mile claims, the clear trend is towards consolidation of the 12-mile limit.

[64] A/C. 1/PV. 1781, p. 42.

[65] A/C. 1/PV. 1783, p. 82.

[66] A/C. 1/PV. 1799, pp. 42, 47, 63, and 66.

[67] *Ibid.*, p. 51.

[68] *Ibid.*, pp. 69-70.

[69] *Ibid.*, pp. 52-55.

[70] See Belgium, *ibid.*, p. 56, and Haiti (A/C. 1/PV. 1798), pp. 18-26.

[71] A/C. 1/PV. 1776, p. 41.

[72] A/AC. 138/SR. 50, p. 7.

[73] L. M. Alexander and E. W. S. Hull, *The Law of the Sea. A Statistical Summary of the Practice of States*, (Washington, D. C.: Nautilus Press, (1971). See also Bolivia's somewhat bloated assessment in A/C. 1/PV. 1783, pp. 76-77.

[74] See statement of March 23, 1971, esp. at p. 46 *et seq.*, where the reasons for the choice of 200 miles are given.

[75] See text above, following note 28.

Table 3, which tabulates more specialized functional claims other than archipelago-related claims and continental shelf claims, again reveals remarkably few claims in excess of 12 miles. Moreover, as Tables 4-6 show, from the point of view of identifying significant trends in State practice, the only noteworthy figures are those relating to (a) exclusive fishing zones in excess of 12 miles; (b) fishery conservation zones in excess of 12 miles; and (c) pollution control zones in excess of 12 miles. Apart from the well-known position of the Latin American States, Tables 4 - 6 do not show any strong regional or developing countries' trends, though they do show that the States of West Africa and the Indian sub-continent seem to be showing more than usual concern to protect their coastal fisheries.

It is of course much less simple to tabulate continental shelf claims in terms of distance from the coast. The State practice summarized in the tables does however suggest that, with the exception of the Latin American region, there has been very little felt need for extensive national claims for any purpose other than that of securing exclusive rights to the exploration and exploitation of the resources of the continental shelf. This fact would suggest to this writer that a continued differentiation between the various maritime boundaries is desirable.

Table 1. *Territorial sea claims 1960 and 1970*

Breadth in Miles (unless noted)	3	4	5	6	9	10	12	18	25	50 km	130	200	Archipelago
1960	26	4	1	10	1	1	13			1		1	2
1970	28	4		12		1	48	1	1	1	1	7	2

Table 2. *Percentage of reported State claims to territorial sea of various breadths.*

Breadth in Miles	3	6	12	18-133	200	12 and Over
1960	43	17	22	2	2	26
1970	25	11	45	4	6	55
Percentage Change	—18	—6	+23	+2	+4	+29

Table 3. *Functional zone claims and territorial sea claims in excess of three miles (excluding archipelago and continental shelf claims).**

Breadth in Miles (unless noted)	4	5	6	9	10 km	10	12	15	18	20 km	25	50 km	100 km	100	130	20-200	200
Territorial Sea	4		12			1	48		1		1	1			1		7
Contiguous Zone Jurisdiction																	
Customs	1		3		1	1	4	2	2	4			1				
Sanitary		1	1				1	2	2								
Exclusive Fishing							17		2	1						1	3
Fishery Conservation														4			
Pollution														1			
Civil Jurisdiction																	
Penal Jurisdiction	Special zones have been established from time to time for these purposes. With few and, for present purposes, insignificant exceptions, they have not exceeded 12 miles.																
Security																	
Neutrality																	

*Functional zone claims are entered only if they are in excess of the Territorial Sea claims of the States concerned.

Table 4. *Exclusive fishing zones in excess of 12 miles including comprehensive territorial sea claims.*

Breadth in Miles (unless noted)	18	20 km	25	130	20-200	200
Africa	Cameroon Gambia Senegal		Gabon	Guinea		
Asia		Rep. of Vietnam			Rep. of Korea	
Latin America						Argentina Brazil Chile Costa Rica Ecuador El Salvador Nicaragua Panama Peru Uruguay

Table 5. *Fishery conservation zones in excess of 12 miles.*

Continent	State	Breadth
Africa	Ghana	12 + 100
Asia	Ceylon	6 + 100
	India	12 + 100
	Pakistan	12 + 100

Table 6. *Pollution control zones in excess of 12 miles.*

Canada	100 miles

ABSTRACT

States	Parties to Geneva Convention on Continental Shelf	Land-Locked and Shelf-Locked	Broad-Shelf	Narrow-Shelf
Africa (25 States)	5	1 + 2 = 3	3	19
Asia (16 States)	2	2 + 7 = 9	4	3
Eastern Europe (10 States)	8	2 + 2 = 4	3	2
Latin America (16 States)	6	1 + 0 = 1	5	10
Western Europe and Others (19 States)	10	1 + 4 = 5	8	6
Total Sea-Bed Committee (86 States)	31 (38%)	7 + 15 = 22 (26%)	23 (27%)	40 (46%)
World Total (146 States*)	43* (29%)	31+23=54 (37%)	28 (19%)	67 (46%)

*Includes Byelorussia and Ukraine as separate States. Figures as at January 1, 1971.

It must, of course, be recognized that the above Tables tell only part of the story. The other part is told by the above analysis of States attitudes as revealed in the First Committee and the Seabed Committee. What does this record show?

First, it shows that an increasing number of developing States are looking sympathetically at the arguments advanced eloquently and earnestly by a number of very able Latin American spokesmen.

Second, it shows that many of these States are currently adopting a very responsible and cautious attitude pending clarification of the economic facts of seabed exploitation as they will affect their economies.

Third, it shows that many of the coastal developing States have decided to keep their options until 1973. At that time they intend to either endorse proposals for relatively narrow national limits linked to a strong international regime guaranteeing them participation in the management of, and an equitable share in the benefits from, seabed exploitation in the area beyond these limits; or, failing satisfactory proposals of this nature, to give serious consideration to more extensive unilateral claims. If the latter development materializes, it would in this writer's view be regrettable if such States were persuaded either by Ambassador Pardo or the example of the Latin Americans to fail to distinguish between their continental shelf claims on the one hand and their territorial sea, fishery and other claims on the other hand.

Fourth, the above review shows that there is a fair degree of support for what is variously described as the "functionalist," "differentiated solutions" and "pluralist" approaches to maritime limits, linked in some cases to the concept of regionalism.

Fifth, it shows that a number of important States are determined to resist undue tampering with the Geneva Convention on the Continental Shelf and are not prepared to envisage a dimunition of their rights under that Convention.

Finally, it shows that a perhaps surprisingly large number of States, the land-locked and shelf-locked States, are conscious of their united voting power and ready to use it to promote the adoption of the only kind of regime likely to benefit them—one which extends over as broad an international area as possible.

As has already been stressed, it is no longer possible to consider any one maritime boundary independently of the others. It is proposed therefore to return to this question of the definition of the area beyond the limits of national jurisdiction following consideration of some of the other related items on the 1973 Conference agenda.

The Common Heritage of Mankind

Before turning to examine this so-called revolutionary concept of the common heritage of mankind as formulated in the Declaration of Principles, it is only proper to refer briefly to the recent views of Ambassador Pardo of Malta who first suggested this concept as a basis for an international regime for the seabed beyond national jurisdiction in 1967. Writing some three years later, Ambassador Pardo explained the need, as he sees it, for the adoption of a new regime based on this concept. The essence of his approach is summed up in the following passages:

> A new order must be based on assumptions that reflect as closely as possible present or clearly foreseeable reality. Among these the following have significant legal or political implications:
>
> (1) Man has acquired the technological capability to change the natural state of the marine environment over vast areas far from the site of his intervention [note omitted].
>
> (2) Man through his varied activities on land, sea or in the air is now capable of causing irreparable contamination of the marine environment [note omitted] which is a single ecological system vital to life on earth.
>
> (3) Ocean living resources are vast but can be depleted.
>
> (4) Ocean space mineral resources are immense; hard mineral resources are virtually inexhaustible.
>
> (5) Ocean space will be progressively used and exploited with increasing intensity in all its dimensions; consequently conflicts of use will become increasingly frequent.
>
> These incontrovertible assumptions suggest that the traditional concepts of freedom of access and

freedom of exploitation can no longer adequately serve the needs of the contemporary international community and that it is becoming urgent to formulate new basic principles upon which a new international regime for ocean space can rest.

Also, under *Principles*:

Traditionally, international law has been essentially concerned with the regulation of relations between States. In ocean space, however, the time has come to recognize as a basic principle of international law the overriding common interest of mankind in the preservation of the quality of marine environment and in the rational and equitable development of its resources lying beyond national jurisdiction. This does not imply disregard of the interests of individual States, but rather recognition of the fact that in the long term these interests can be protected only within the framework of a stable international regime of close cooperation between States. . . .

I have already suggested that the traditional concepts governing present international law of the sea (including the sea-bed) beyond national jurisdiction are no longer viable both because more intensive utilization of ocean space will lead to increasing conflict, waste of resources and contamination of the environment and because the present regime of virtually total freedom of access, use and exploitation of ocean space beyond national jurisdiction is considered by an increasing number of States as providing an unfair advantage to technologically advanced maritime countries able effectively to exploit the sea-bed and the oceans. Accordingly there is no alternative to the creation of a new international order for ocean space beyond national jurisdiction based on the concept of common heritage of mankind [note omitted][76]

While one hand sowed the seed, many hands are now hoping to shape the new growth. At the moment, however, apart from unilateral proposals made by a number of States, all that we have are a few rather vague paragraphs in the Declaration of Principles. The main reference is in operative Paragraph 1, where it is "solemnly declared" that:

1. The sea-bed and ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction (hereinafter referred to as the area), as well as the resources of the area, are the common heritage of mankind.

There are two points to notice about this paragraph. First, as already noted, the geographical scope of the concept remains to be defined. Secondly, the reference is to both "the area" *and* "the resources of the area." This and similar dual references elsewhere in the Declaration caused the Canadian Delegation some concern:

We have difficulties with the statement that the area itself is the common heritage of mankind. This statement tends to imply that all uses of and all activities on the sea-bed beyond the limits of national jurisdiction should be regulated by the international regime to be set up for the exploration and exploitation of the resources of the sea-bed beyond national jurisdiction. The same implication arises from the present formulation of various other principles in the draft declaration.

While Canada does not necessarily reject this idea or this objective, we reserve our position on the matter because we consider that the primary purpose of the proposed international regime should be to promote the exploration and exploitation of the resources of the sea-bed beyond national jurisdiction for the benefit of mankind and particularly of the developing countries. We cannot conceive of this occurring if the regime does not have certain connected regulatory powers such as, for example, those necessary to enable it to guard against pollution of the sea arising out of sea-bed activities. Canada's preference, however, would be to confine the scope of the regime to those functions necessary to ensure an orderly, efficient and equitable system of exploration and exploitation of sea-bed resources.

With regard to the possibility of a broader regime covering all uses of and activities on the sea-bed beyond national jurisdiction, we would counsel caution not only because we are aware of the complex and far-reaching problems involved in attempting to regulate all other uses and activities, but also because we fear that the establishment of a regime for resource exploration and exploitation may otherwise be indefinitely delayed.[77]

The Canadian concern is understandable in the sense that an overambitious attempt at an exhaustive regulation of all uses of the ocean bed would go too far and the reference in Paragraph 3 to the regulation by the regime of unspecified "other related activities" is clearly less precise than one would wish. Nevertheless, the Canadian preference does seem rather too narrow. The international community is clearly interested in not only exploitation of resources and the prevention of related environmental contamination; it is also concerned to promote further measures of demilitarization and to foster and protect international cooperation in scientific research. More generally, the regime must be concerned to regulate and fix priorities between other potentially conflicting users of the sea-bed.

What is this concept, "the common heritage of mankind?" Is it a legal principle, moral principle or what? And what are its substance and implications? The significance of the term is well summed up by Mr. Debergh (Belgium):

"What's in a name?" My delegation has always recognized that the concept of a common heritage,

[76]A. Pardo, "A New Order in Ocean Space", mimeographed paper presented to Council of Europe *Symposium on the Exploration and Exploitation of the Sea-Bed and Its Subsoil*, December 1970, pp. 5-6. The ideas outlined in this paper are further developed in Ambassador Pardo's speech of 23 March 1971 in the Geneva meetings of the Sea-Bed Committee.

[77]A/C. 1/PV. 1779, pp.4-5.

> without having any clear juridical significance, nevertheless represents a whole moral and political complex of great value. My delegation could equally well have accepted the terms of "common property," "common wealth," "international public domain" and so on, all of which are variants of the same fundamental idea.[78]

So far as the developing States are concerned, the concept has connotations of revolution, justice, anti-colonialism and participation in the law-making process. The enthusiasm which the concept has generated was eloquently expressed in the First Committee by Mr. Jackman of the Barbados delegation:

> It is obvious that the international community is in the beginning stages of a revolution in relation to the entire body of international law covering the marine environment. Like all the best revolutions, this one is about justice. Not even the most purblind paternalist in the rich industrial nations of the world would deny that the law of the sea has evolved along lines which had very little to do with the concept of international democracy. I am not pointing the finger of blame; I am merely stating the facts. A number of the so-called "doctrines" which exist today are little more than reflections of old power balances which are totally irrelevant to the realities of the seventh decade of the twentieth century. For countries like Barbados, which had no part in their creation, these one-sided accords are no more sacred than any other totems and relics of long-dead cults; they are interesting and instructive to contemplate, but quite devoid of contemporary utility.
>
> For these reasons my Government is enthusiastically committed to participation in the efforts which the international community is now making to develop a body of law which represents the will of the large majority of nations, and which reflects the needs of our times. This is the context within which we view agenda item 25, a context of truly international accord, of a dynamic search for justice for all nations whether they be large or small, maritime or landlocked, insular or continental.[79]

Mr. Galindo Pohl of the El Salvador delegation expressed similar views, claiming that with this Declaration the United Nations is now changing international law:

> The declaration of principles has one key provision that towers over its entire contents and constitutes a very valuable instrument for the interpretation of all its provisions. That key part of the document appears in operative paragraph 1, according to which
>
> > The sea-bed and ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction . . . , as well as the resources of the area, are the common heritage of mankind. . . .
>
> That principle endows the international area with a peculiar character, and with this declaration the United Nations is now changing international law. If the declaration is adopted, for the first time a region, zone or area of the planet will be subject to a regime in which all peoples of the world would be partners and whose resources would contribute to the development of all countries. That declaration would, if adopted, in the most serious and resounding fashion proclaim the maturity and progress of the international community through the interdependence of interests and the rationalization of ties. The fact that participation in its benefits would be equitable and that particular account would be taken of the interests and needs of the developing countries would constitute notable progress and promise concerning international justice in the distribution of resources and would establish a valuable precedent for the future type of justice that would, we trust, lead to the solution of the problems of underdevelopment on a world-wide scale.[80]

Again, the Chilean delegation, having noted that "legally, we might contend that it is an indivisible property with fruits that can be divided," went on to say that

> politically and economically speaking, it means that all States, coastal or landlocked, will participate in the administration of the sea-bed beyond national jurisdiction and in the benefits derived from that region. This is a new and revolutionary concept in international law and policy. We will have given expression to the so-called theory of participation and we will have moved a step towards that international social justice which the world requires.[81]

While such rhetoric assists very little in defining the term, it does help to convey the strength of feeling which has developed over this whole question and which will be a real factor when the time comes to convert the moral and political concept into legal rules.

The Yugoslav delegate in the First Committee came a little nearer to an analysis of the concept when he spoke of "the concept of 'the common heritage of mankind' with its three vital elements, common wealth, common management and common and just share of benefits."[82]

The Guyanese delegate went so far as to regard the principle of the common heritage of mankind "as a peremptory norm of international law admitting of no derogation therefrom." In his view, it followed that "a few, scattered, negative votes on this declaration cannot have the force of altering its status."[83]

At the opposite pole, the Byelorussian delegate not only did not recognize the concept as *jus cogens;* he rejected it even as a legal principle:

> Speaking of legal principles, we should like to stress that, as in the past, the Byelorussian dele-

[78] A/C. 1/PV. 1788, pp. 24-25.

[79] A/C. 1/PV. 1787, p. 32.

[80] A/C. 1/PV. 1781, pp. 17-20. See, however, pp. 8-11 for his moderate view of the legal significance of the Declaration.

[81] A/C. 1/PV. 1775, p. 12.

[82] A/C. 1/PV. 1784, p. 28.

[83] A/C. 1/PV. 1788, p. 38.

> gation cannot support the concept that the sea-bed and ocean floor beyond the limits of national jurisdiction and the resources thereof are the common heritage of mankind—in other words, a kind of collective property of all countries. That concept does not take into account the objective realities of the contemporary world, in which there are States having different social systems and different property regimes. Such a concept, as was evident in the work of the sea-bed Committee, makes more difficult the working out and adoption of legal principles consonant with the interests of all States.[84]

Even the Canadian delegation did not regard the concept as a legal principle at this stage:

> We agree also that the resources of the area should be considered to be the common heritage of mankind, although we view this not so much as a legal principle at this stage, but rather as a concept to which the international community can give specific legal meaning and as a concept upon which we can together construct the machinery and the rules of international law which will together comprise the legal regime for the area beyond national jurisdiction.[85]

In the light of the above analysis of the status of the Declaration as a whole and of the record of the First Committee debate, the most reasonable conclusion would seem to be that the concept of the common heritage of mankind is not a legal principle but embodies rather agreed moral and political guidelines which the community of States has undertaken, a moral commitment to follow in good faith in the elaboration of a legal regime for the area beyond the limits of national jurisdiction.

In the nature of things, one would expect that such guidelines should be precise. Nevertheless, the paragraphs following Paragraph 1 do indicate the main ingredients which will have to be incorporated in the final regime. These follow.

Status of Area as *Res Extra Commercium*

Operative Paragraph 2 provides that

> 2. 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 thereof.

If and when incorporated in a treaty, this principal will settle a problem which has been a subject of doctrinal debate for many years—the status of the bed of the sea.

Prescription of Rights Incompatible with Regime

Operative Paragraph 3 provides that

> 3. No State or person, natural or juridical, shall claim, exercise or acquire rights with respect to the area or its resources incompatible with the international regime to be established and the principles of this Declaration.

The reference to both the area *and* its resources has been noted above.

The formulation of this principle and, in particular, the reference to both the regime (to be established) and the principles of the Declaration (now established) suggest that the Declaration was intended to reconfirm the moratorium on exploitation of the area contained in Resolution A/RES/2574 D (XXIV) which, it will be recalled, was adopted by a vote of only 62 to 28, with 28 abstentions. And this impression might be reinforced by the fact that preambular Paragraph 1 "recalls" this particular Resolution among others. Some States have indeed indicated that they interpret the Declaration in this way.

This is, however, an interpretation which would clearly not be acceptable to a large number of States and Mr. Galindo Pohl (El Salvador) has confirmed that it was clearly understood in the informal negotiations which preceded the presentation of the final draft in the First Committee that the Declaration should be neutral on this point:

> Nor does the draft declaration endorse or undermine the so-called moratorium that was the subject of a General Assembly resolution at its twenty-fourth session. In the course of the negotiations, conflicting interests were reconciled in the sense that the declaration of principles would be neither of two things: either a provisional regime or a restatement of the moratorium. On these points the draft declaration reflects a clear desire to be neutral.[86]

Government by International Regime

> 4. All activities regarding the exploration and exploitation of the resources of the area and other related activities shall be governed by the international regime to be established.

Operative Paragraph 9 gives further details on the nature and objectives of the regime:

> 9. On the basis of the principles of this Declaration, an international regime applying to the area and its resources and including appropriate international machinery to give effect to its provisions shall be established by an international treaty of a universal character, generally agreed upon. The regime shall, *inter alia*, provide for the orderly and safe development and rational management of the area and its resources and for expanding opportunities in the use thereof and ensure the equitable sharing by States in the benefits derived therefrom, taking into particular consideration the interests and needs of the developing countries, whether land-locked or coastal.

Breaking these two Paragraphs down into their constituent elements, the regime

1. is concerned with the exploration and exploitation of the resources of the area. It is not clear whether these include both living and non-living resources.

[84] A/C. 1/PV. 1780, pp. 47-50.

[85] A/C. 1/PV. 1779, p. 4.

[86] A/C. 1/PV. 1781, p. 12.

2. is concerned with other activities in the area related to the exploration and exploitation of its resources. Again these "other activities" are unspecified.

3. will include appropriate international machinery to give effect to its provisions. No further indication of the nature of that machinery is given.

4. will be established by an international treaty of a universal character, generally agreed upon. The implications of the juxtaposition of the terms "international," "universal" and "generally agreed" in relation to representation of non-UN members in the creation of the new regime are unclear.

5. will have as its objectives *inter alia* (a) the orderly development of the area and its resources, (b) the safe development of the area and its resources, (c) the rational management of the area and its resources, (d) the expansion of opportunities in the use of the area and its resources, (e) the equitable sharing in the benefits derived from the area and its resources, and (f) particular considerations for the interests *and needs* of the developing countries, whether land-locked or coastal.

"Orderly development" and "rational management" are relative terms and it remains to be seen to what extent they will be read as a further acknowledgment of the need to bear in mind

> . . . that the development and use of the area and its resources shall be undertaken in such a manner as to foster healthy development of the world economy and balanced growth of international trade, and to minimize any adverse economic effects caused by fluctuation of prices of raw materials resulting from such activities (Preambular Paragraph 6).

The General Assembly, in adopting Resolution A/RES/2750 A (XXV) on December 17, 1970, requested the Secretary-General to study and report on this question. The Resolution was adopted 104 to 0, with 16 abstentions but there was a widespread feeling voiced by the Soviet delegation among others "that at the present time, when the limits of the area beyond national jurisdiction have not been defined and when commercial exploitation of the resources of that area is not under way, we have not as yet the necessary data on the subject . . ."[87]

Even if it were possible at this time for the Secretary-General to prepare an adequate report, it is clear that there would still be considerable difficulty in reconciling the very different views expressed in the First Committee. On the one hand, the Japanese felt that the resolution did not "take . . . due regard of the position of States that are not rich in their natural resources and are therefore importers of mineral resources,"[88] and Canada feared that Preambular Paragraph 6 of the Declaration "could be interpreted in such a way as to frustrate the exploitation of sea-bed resources."[89] That the United States would oppose any such interpretation was implied in a recent comment by Mr. Ratiner.[90] Kuwait, on the other hand, advocated machinery to "enforce a ceiling for the production of minerals of which a surplus already exists in world markets,"[91] and warned that "sea-bed resources, if not rationally exploited, may well become a curse for mankind."[92]

The Interests of Developing, Land-locked and Coastal States

As has been seen, operative Paragraph 9 spoke of one of the objects of the regime as being to ensure the equitable sharing by States in the benefits derived from the area, "taking into particular consideration the interests and needs of the developing countries, whether land-locked or coastal." The special interests of these three groups are further referred to elsewhere in the Declaration and, in addition, the General Assembly adopted Resolution A/RES/2750 B (XXV) dealing with the position of land-locked States.

Paragraph 5 of the Declaration provides that:

> 5. The area shall be open to use exclusively for peaceful purposes by all States whether coastal or land-locked, without discrimination, in accordance with the international regime to be established.

and is supplemented by Paragraph 7 which provides that:

> 7. The exploration of the area and the exploitation of its resources shall be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States, whether land-locked or coastal, and taking into particular consideration the interests and needs of the developing countries.

Developing States. Reference has already been made to the satisfaction felt by developing States that the Declaration of Principles requires special regard to be had not only to the interests but also to the needs of the developing States. Unfortunately not all of the developing States perceive their interests and needs in the same way. Producers and exporters of territorial mineral resources have an interest in limitation of production of marine mineral resources; broad shelf advocates clash with narrow shelf advocates; and land-locked States have yet another perspective.

Land-locked States. The position of land-locked States is discussed above in the text, following note 63.

[87] A/C. 1/PV. 1799, p. 37.

[88] *Ibid.*

[89] A/C. 1/PV. 1779, p. 7.

[90] Speech by L. S. Ratiner, Chairman, Department of Defense Advisory Group on Law of the Sea, presented to Offshore Technology Conference, Houston, Texas, April 19, 1971. At p. 15 Mr. Ratiner said, "The National Petroleum Council specifically complains that Article 68 of the [U. S.] draft Convention [of August 3, 1970] could be construed to authorize international production controls for economic reasons. Nowhere in that article is there a suggestion that international economic factors will control production."

[91] A/C. 1/PV. 1780, p. 36.

[92] *Ibid.*, p.37.

Coastal States. Specific reference is made to the rights and interests of coastal States in Paragraph 12 and 13 (b) of the Declaration:

> 12. In their activities in the area, including those relating to its resources, States shall pay due regard to the rights and legitimate interests of coastal States in the region of such activities, as well as of all other States which may be affected by such activities. Consultations shall be maintained with the coastal States concerned with respect to activities relating to the exploration of the area and the exploitation of its resources with a view to avoiding infringement of such rights and interests.
>
> 13. Nothing herein shall affect:
>
> (a) . . . .
>
> (b) The rights of coastal States with respect to measures to prevent, mitigate or eliminate grave and imminent danger to their coastline or related interests from pollution or threat thereof resulting from, or from other hazardous occurrences caused by, any activities in the area, subject to the international regime to be established.

The Canadian delegation, commenting on Paragraph 12, considered

> that the obligation to consult with the coastal State concerned, at least upon the request of that State, should apply to any activity that might infringe its rights and interests, and not only to those activities relating to the exploration of the area beyond national jurisdiction and the exploitation of its resources.[93]

Similarly, the Canadian delegation had serious reservations about the advisability of the selective subjection of the rights protected by Paragraph 13 (b) to the proviso "subject to the international regime to be established."[94]

The Canadian attitude on both points has of course to be seen against the background of their struggle as a "coastal" rather than a "shipping" State to have international recognition of a greater degree of jurisdiction for the coastal State for the protection of its security and environment.

Reservation for Peaceful Purposes

The conviction expressed in Preambular Paragraph 4 "that the area shall be reserved exclusively for peaceful purposes" is reiterated in operative Paragraphs 5, 6, 8 and 10.

Paragraph 5 provides that "the area shall be open to use exclusively for peaceful purposes . . . in accordance with the international regime to be established."

Paragraph 6 embodies the somewhat redundant reaffirmation of the applicability of the UN Charter and the Declaration of Principles of International Law concerning Friendly Relations and Cooperation among States to the seabed area.[95]

The main provision on peaceful purposes, and the only one to hint at the limitations which at the present time must qualify any general pacific declaration relating to the seabed, is contained in Paragraph 8:

> 8. The area shall be reserved exclusively for peaceful purposes, without prejudice to any measures which have been or may be agreed upon in the context of international negotiations undertaken in the field of disarmament and which may be applicable to a broader area. One or more international agreements shall be concluded as soon as possible in order to implement effectively this principle and to constitute a step towards the exclusion of the sea-bed, the ocean floor and the subsoil thereof from the arms race.

Finally, Paragraph 10, in providing for the promotion of international co-operation on scientific research, specifies that such research must be for exclusively peaceful purposes.

Paragraph 8 is in essence a reaffirmation of the position reached at the conclusion of the negotiation of the Treaty Prohibiting the Emplacement of Weapons of Mass Destruction on the Seabed (1971). The Co-Chairman of the Conference of the Committee on Disarmament (CCD), the Soviet Union and the United States, arrived at what was basically a bilateral agreement to ban the emplacement of mass destruction weapons on the seabed beyond a 12-mile coastal belt. In order to win the support of the international community, however, this "step towards the exclusion of the seabed, the ocean floor and the subsoil thereof from the arms race" (Preamble) was hopefully to be consolidated, pursuant to the obligation in Article V "to continue negotiations in good faith concerning further measures . . ." and the question of preventing an arms race on the seabed was retained on the agenda of the CCD.[96]

As the Chilean delegate put it in the First Committee,

> Obviously, we should have preferred a total prohibition of military uses of the sea-bed . . . since we believe that that would have been the right way to express the concept of the reservation of the sea-bed exclusively for peaceful purposes. . . . However . . . we understand that there is a commitment urgently to negotiate the total demilitarization of the area. The present wording

[93] A/C. 1/PV. 1779, p. 6.

[94] *Ibid.*, p. 7.

[95] "6. States shall act in the area in accordonce with the applicable principles and rules of international law including the Charter of the United Nations and the Declaration on Principles of International Law concerning Friendly Relations and Co-operation among States in accordance with the Charter of the United Nations, adopted by the General Assembly on October 24, 1970. [A/RES/2625 (XXV)] in the interests of maintaining international peace and security and promoting international co-operation and mutual understanding."

[96] See further E. D. Brown, *Arms Control in Hydrospace: Legal Aspects*, (Washington, D. C.: Woodrow Wilson International Center for Scholars, 1971.)

is a concession which the developing countries had to make for the sake of achieving agreement.[97]

International Co-operation in Scientific Research

Paragraph 10 of the Declaration of Principles provides that:

> 10. States shall promote international co-operation in scientific research exclusively for peaceful purposes:
>
> (a) By participation in international programmes and by encouraging co-operation in scientific research by personnel of different countries;
>
> (b) Through effective publication of research programmes and dissemination of the results of research through international channels;
>
> (c) By co-operation in measures to strengthen research capabilities of developing countries, including the participation of their nationals in research programmes. No such activity shall form the legal basis for any claims with respect to any part of the area or its resources.

The progress already made and the present position regarding the promotion of international co-operation in scientific research in the oceans is too large a subject for treatment here but reference may be made to other sources and particularly to the *Comprehensive Outline of the Scope of the Long-Term and Expanded Programme of Oceanic Exploration and Research* approved by the Intergovernmental Oceanographic Commission in 1969.[98]

Mention must, however, be made of one aspect of this question which is of particular concern to the developing countries, whose wish it is as much to participate in the use of the oceans as to benefit from their use. Whether one is concerned with the capacity of developing States to identify the type of regime which is in their best national interests; to explore and exploit the resources of their own continental margins; or to participate in the exploitation of the seabed beyond national jurisdiction, it is clear that there is a real need for education and training in marine science and technology. The urgency of the need was stressed by Trinidad and Tobago in the First Committee[99] and reiterated by Jamaica,[100] Ghana[101] and Peru.[102]

Again, a full account of the response which these and earlier pleas have prompted is beyond the scope of this paper and it must suffice to refer to the encouraging statements which the representatives of UNESCO made in the Seabed Committee in August 1970[103] and in the First Committee in December 1970[104] reporting on plans for an expanded programme of education and training.

Legal Status of Superjacent Waters

Paragraph 13 (a) of the Declaration of Principles provides that:

> 13. Nothing herein shall affect:
>
> (a) The legal status of the waters superjacent to the area or that of the air space above those waters. . . .

Liability

Paragraph 14 of the Declaration of Principles provides that

> 14. Every State shall have the responsibility to ensure that activities in the area, including those relating to its resources, whether undertaken by governmental agencies, or non-governmental entities or persons under its jurisdiction, or acting on its behalf, shall be carried out in conformity with the international regime to be established. The same responsibility applies to international organizations and their members for activities undertaken by such organizations or on their behalf. Damage caused by such activities shall entail liability.

In announcing in the First Committee the intention of his Government to vote for the Declaration, the Japanese representative placed on record Japan's understanding that

> a thorough and careful examination will have to be undertaken on the questions concerning the subjects of liability for damage and the standards of liability when this paragraph is to be translated into provisions of an international treaty.[105]

Similarly, the United Kingdom representative recorded his delegation's understanding that Paragraph 14

> does not impose upon the State an automatic liability for the acts and omissions of its nationals acting under its aegis, and that the final sentence in no way prejudges the negotiations on the standard of liability for various kinds of damage to be incorporated in the agreement establishing the international regime.[106]

As will be clear from these quotations, if it is not already apparent from the text, Paragraph 14 is little more than a declaration of good intentions.

Pollution

The Declaration of Principles approaches pollution from two angles.

First, Paragraph 11 refers to the adoption of international rules, standards and procedures:

> 11. With respect to activities in the area and acting in conformity with the international regime to be established, States shall take appropriate

[97] A/C. 1/PV. 1775, p. 16. The pretense of the Soviet Union that it had insistently proposed demilitarisation on a larger scale (A/C. 1/PV. 1777, pp. 33-35), while literally true, is, if read in the context of the CCD negotiations, clearly for propaganda purposes.

[98] UNESCO, Intergovernmental Oceanographic Commission Technical Series, No. 7, 1970. See also literature cited in note 13 above.

[99] A/C. 1/PV. 1778, pp. 12-13.

[100] A/C. 1/PV. 1782, p. 62.

[101] A/C. 1/PV. 1785, pp. 63-65.

[102] A/C. 1/PV. 1788, p. 12.

[103] A/AC. 138/30.

[104] A/C. 1/PV. 1786, p. 51.

[105] A/C. 1/PV. 1798, pp. 33-35.

[106] A/C. 1/PV. 1799, pp. 9-10.

measures for and shall co-operate in the adoption and implementation of international rules, standards and procedures for, *inter alia*:

(a) Prevention of pollution and contamination, and other hazards to the marine environment, including the coastline, and of interference with the ecological balance of the marine environment;

(b) Protection and conservation of the natural resources of the area and prevention of damage to the flora and fauna of the marine environment.

Second, Paragraph 13 (b) refers to the rights of the coastal State:

13. Nothing herein shall affect:

(b) The rights of coastal States with respect to measures to prevent, mitigate or eliminate grave and imminent danger to their coastline or related interests from pollution or threat thereof resulting from, or from other hazardous occurrences caused by any activities in the area, subject to the international regime to be established.

As has been seen, marine pollution has many sources and the above paragraphs are concerned only with pollution resulting from activities in the seabed area beyond national jurisdiction. They are thus no more than a starting point for the elaboration of rules to deal with this one aspect. The fact that this source is however referred to in the Declaration of Principles, which is to be a basis for the elaboration of a new regime, indicates that, whatever other aspects are dealt with at the 1973 Conference, this question will not be ignored.

Settlement of Disputes

Paragraph 15 of the Declaration of Principles provides that:

15. The parties to any dispute relating to activities in the area and its resources shall resolve such dispute by the measures mentioned in Article 33 of the Charter of the United Nations and such procedures for settling disputes as may be agreed upon in the international regime to be established.

Urgent Need for Rules

Preambular Paragraphs 3 and 5 of the Declaration of Principles read as follows:

Recognizing that the existing legal regime of the high seas does not provide substantive rules for regulating the exploration of the aforesaid area and the exploitation of its resources, ...

Believing it essential that an international regime applying to the area and its resources and including appropriate international machinery should be established as soon as possible.

Paragraph 3 states baldly that there are no substantive rules to regulate the exploration of the area and the exploitation of its resources. The need for urgency would therefore follow. It would arguably be more accurate to say that the existing rules are imprecise and disputed. As the writer has tried to show elsewhere,[107] rudimentary rules of international customary law capable of development by practice already exist. Space will not permit a rehearsal of this theme but it may suffice to refer to what are likely to be three major deficiencies of a regime developed in this way as compared with the aspirations of the Declaration of Principles.

First, there would certainly be great difficulty in establishing the outer limit of the continental shelf, a difficulty which would be aggravated by the absence of any agreed, detailed regime for the exploitation of the area beyond. The probability is that State practice, unilaterally or through regional agreement, would develop towards the recognition of a plurality of limits, the functional criteria for which would be unilaterally or regionally determined. And, of course, the danger exists that functional differentiation might be rejected in favor of broad comprehensive territorial sea claims.

Second, difficulty would be experienced, initially at least, in providing security of tenure for exploiters of the resources of both disputed areas of continental shelf and the seabed beyond the shelf.

Third, an international customary law regime is hardly likely to embrace and develop the concept of the common heritage of mankind. It may be noted in passing that the Soviet bloc would not be averse to such a development. From the Soviet point of view,

> The interpretation of the concept of the common heritage of mankind, in the sense that this is wealth that belongs to everybody, would from the political standpoint be unreal. As a Socialist State, the Soviet Union cannot agree with such a theory in conditions where the exploitation of these resources of the seabed would be on the basis of ideas that are alien to the socialist concepts. They are ideas that obviously draw their strength from the capitalist approach to these matters.
>
> . . . nor do we believe there is any ground for including in this declaration a provision whereby the regime to govern the exploitation of the resources of the seabed should ensure the "equitable sharing by States in the benefits derived therefrom. . ."
>
> The Soviet delegation has more than once stated, on the question of participation in the resources derived from the exploitation of the seabed and the ocean floor, that this must be considered separate from the responsibility for the backwardness of the developing countries, a responsibility that falls upon the former colonial powers and the capitalist monopolies.[108]

A little earlier in his speech in the First Committee, Mr. Issraelyan stated that "The fact that this concept is not stated clearly might imply that the resources of the seabed and ocean floor can be used by all or any States and cannot be subject to appropriation by certain States on physical or legal grounds." He agrees with this.[109]

[107] F. D. Brown, *The Legal Regime of Hydrospace*, 1971, pp. 81-103.

[108] A/C. 1/PV. 1798, p. 31.

[109] *Ibid.*

In the light of these remarks, it is of considerable interest to note that, in April 1971, the Soviet bloc countries agreed to set up an International Coordinating Center of Marine Exploration in the Soviet Union, open to members of COMECON. Joint expeditions are reported to be planned to select prospective sites for mineral exploitation in the Atlantic and Indian Oceans. The head of the Geology and Mineral Resources Department of the Soviet State Planning Committee is reported as saying that exploration efforts would be directed toward finding oil and gas fields, as well as deposits of gold, tin, nickel, cobalt, titanium and zirconium all of which are in limited supply in the Soviet land mass.[110]

Conclusions

The above analysis has clarified the notion of the common heritage of mankind to some extent. First, it has shown that the most reasonable conclusion concerning the status of the concept of the common heritage of mankind is that it is not a legal principle but embodies rather agreed moral and political guidelines which the community of States has undertaken a moral commitment to follow in good faith in the elaboration of a legal regime for the area beyond the limits of national jurisdiction.

Second, it has been suggested that the strength of feeling of the developing States concerning this principle will be a significant factor in the coming negotiations.

Third, it has been seen that the concept of the common heritage of mankind has been given more tangible form by the passages in the Declaration of Principles dealing with the status of the area as *res extra commarcium;* prescription of rights incompatible with the new regime; government of activities in the area by the international regime; the special interests of developing, land-locked and coastal States; reservation of the area for peaceful purposes; international cooperation in scientific research; liability for damage caused by activities in the area; and pollution.

Nevertheless, even these relatively more specific provisions remain at a very high level of abstraction and are in every case subject to a great many different interpretations by different interest groups.

Immediate or Potential Law-making Effect. It follows that the immediate law-making effect of these Principles in the Declaration which spell out the meaning of the common heritage concept is no more than that already noted in the above consideration of the definition of the area—an affirmation that there is a limit beyond which national claims to the seabed may not extend.

Needless to say, the potential law-making effect is almost unlimited; but it is also entirely dependent on further negotiation either in 1973 or later, and either as part of a comprehensive settlement or in more restricted packages.

Probable Effect of Failure to Agree in 1973. To some extent, the effect of failure to agree on a new international regime in 1973 will depend upon whether the failure to reach an overall settlement necessarily blocks progress on more limited questions. It is certainly not beyond the bounds of possibility that effect might subsequently be given to the only legal principle incorporated in the Declaration of Principles by agreement on the outer limit of the continental shelf. More will be said on this question subsequently, but it may be noted meantime that one possibility would be to link recognition of a wide continental shelf with acceptance of an obligation to contribute a proportion of the profits of its exploitation to an international fund. If States such as the United States and Canada —which have already indicated a willingness to consider somewhat similar arrangements[111]—were to promote the idea, it might win sufficient support. If it did, it might also preface the way for the establishment of an infrastructure for an international regime beyond the outer limit of the continental shelf.

Similarly, failure of a comprehensive Conference need not, and in the writer's opinion would not, halt (though it might delay) further more limited negotiations on *inter alia* (1) further provision for the interests of land-locked States,[112] (2) further measures of seabed arms control, (3) further measures to promote international cooperation in scientific research, (4) provision for liability for damage caused by seabed activities beyond the outer limit of the continental shelf, and (5) pollution.

Fears that in the interim between failure of a comprehensive Conference and such further negotiations, there will be a widespread "colonial grab" of vast areas of the oceans or even of the ocean bed are in the writer's view unfounded. There may well be declarations specifying extensive limits for currently vague continental shelf claims; claims have also been laid to extensive fishing limits or pollution control zones, but it is by no means clear that any such developments will be widespread. To suggest that a partitioning off of the oceans will begin in 1974, following a Conference failure, is surely to oversimplify the facts of international politics. It is even arguable that the failure of a Conference in 1973 would not be such a disaster if it led States to proceed to more manageable negotiations in less of a crisis atmosphere, with better preparation and on the basis of more overt political realism than has been displayed so far.

[110] *New York Times*, April 24, 1971, p. 9, col. 1. See also text above at note 59.

[111] In the U. S. Draft Convention of August 3, 1970 and in the Canadian statement in the Sea Bed Committee on March 24, 1971, p. 25.

[112] See for a statement of those interests, Bolivian statements in the First Committee on December 3 and 11, 1970 (A/C. 1/PV. 1783, pp. 64-97 and PV. 1794, pp. 3-8).

Issues Concerning the Continental Shelf

The terms of reference of the 1973 Conference encompass not only the establishment of an international regime for the seabed beyond the limits of national jurisdiction, but also "a broad range of related issues" including those concerning the regime of the continental shelf. Under the Organization Agreement, Subcommittee II of the Seabed Committee is entrusted with the task of preparing "a comprehensive list of issues relating to the law of the sea, including those concerning . . . the continental shelf . . . and to prepare draft articles thereon."

The hazards of predicting the consequences of failure to agree in 1973 are even more formidable in relation to this agenda item, since it is not at all clear precisely what "issues concerning the regime of the continental shelf" are to be reexamined. It is likely, however, that the list will include the following items: (1) outer limits, (2) lateral delimitation, (3) freedom of scientific research, (4) advisability of removing living resources from scope of natural resources of continental shelf, (5) pollution, (6) status of continental shelf in relation to military uses.

Outer Limit of Continental Shelf

As was noted above, the outer limit of the continental shelf is—unless and until the legal concept of the continental shelf is dispensed with—the inner limit of the area beyond the limits of national jurisdiction to which the Declaration of Principles applies. As such it has been extensively commented upon already and will be further referred to below. This may, however, be an appropriate point at which to make a suggestion concerning the work of Sub-Committee II. In terms of the "Organization Agreement," Sub-Committee II may "consider the precise definition of the area of the sea-bed and the ocean floor and the subsoil thereof beyond the limits of national jurisdiction in connection with the matters allocated to" it, though the matter of recommendations concerning this definition is to be regarded as a controversial issue on which the parent Seabed Committee would pronounce. The suggestion is that it might be a worthwhile exercise to refer to one of the Working Groups which will probably be established for the task of reviewing the definition of the continental shelf in Article I of the Geneva Convention and exploring the political feasibility, either as a first option or as a fall-back alternative, of establishing a wide but precise limit to the continental shelf and linking it with an international obligation to contribute a share of the profits of its exploitation to an international fund. This suggestion is made for two reasons. First, it may prove impossible to agree upon a new international regime in 1973. It might, therefore, facilitate further negotiations on a revised basis if a fall-back position were prepared in advance. Second, and more important, such an exercise may well show that the difficulty of reaching agreement on the outer limit of the continental shelf is not nearly so great as is usually thought if it is tackled not just as a question of continental shelf delimitation but as a unified problem of delimitation and equitable sharing of proceeds. There can be no pretense, of course, that the task would be easy. If, however, the following basic facts are kept in mind, it might not be insuperable:

1. Whether under the Geneva Convention or international customary law, coastal States already have, and are under no obligation to surrender, very extensive rights in the continental shelf.

2. Rightly or wrongly, there are very strong lobbies in some at least of the major maritime powers which oppose any regime which would remove from national control the exploitation of strategically important fuel reserves. Such lobbies may well prove to be powerful enough to block the entry into force of any convention embodying such a regime. They may well, however, be prepared to endorse an international obligation to share the proceeds of the exploitation of these reserves with the international community.

3. Some at least of the less-developed countries would clearly prefer a narrow national belt and participation in management of and share in benefits from a wide international zone. Given the above two basic facts, however, the compromise proposed above may form the basis of an acceptable settlement without prejudice to the regime applicable in the area beyond.

In any event Sub-Committee II should certainly concern itself with the Judgment of the International Court of Justice in the *North Sea Continental Shelf Cases*. It would certainly be timely to consider whether to recommend the endorsement of the questionable interpretation widely put upon the Court's "natural prolongation" *dictum* or to recommend a rather more precisely quantified limit.

Lateral Delimitation

It might also be timely to review the Court's Judgment in relation to the question of delimitation of the continental shelf between opposite and adjacent States and to reconsider the formulation of Article 6 of the Geneva Convention, in particular with a view to clarifying the reference to "special circumstances."

Freedom of Scientific Research

This question is referred to below, in section 6.

Advisability of Removing Living Resources from Scope of Natural Resources of Continental Shelf

Article 2(1) and (4) of the Geneva Convention on the Continental Shelf provide as follows:

1. The coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources. . .

4. The natural resources referred to in these articles consist of the mineral and other non-living resources of the seabed and subsoil together with living organisms belonging to sedentary species, that is to say, organisms which, at the harvestable stage, either are immo-

bile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil.

The well-known difficulties to which these provisions have given rise have been commented upon in a recent FAO memorandum:

> . . . natural resources are defined to include only those living resources that belong to sedentary species. Difficulties of interpretation have arisen in practice regarding this definition and the relevant provision is known to prevent certain States from becoming a party to the Convention.

To take one example, the King Crab Agreement between Japan and the United States, concluded in 1964 and subsequently modified and extended on several occasions, indicates that both governments reserve their positions with regard to the question of whether the king crab is a high sea fishery resource (the Japanese view) or is a natural resource of the continental shelf (the United States view).

> Should it be deemed appropriate to re-examine the provisions of the Convention as they relate to fisheries, the view could be taken that it would be desirable to provide a more precise definition of sedentary species. Alternatively, it could be considered that living resources should be excluded from the ambit of the Convention. The question would seem to be in any case closely related to discussions on systems of fishery management and those could be considered to be the determining factor rather than the fact that a given species, at the harvestable stage, is either immobile on or under the seabed or is unable to move except in constant physical contact with the seabed or the sub-soil.[113]

This is a view which is widely held[114] and the prospects seem good for a worthwhile improvement of the Geneva Conventions in this respect.

Pollution

This question is further referred to below in section 7.

Status of Continental Shelf in Relation to Military Uses

In view of the interest in carrying further the measures of arms control embodied in the recently signed Treaty on the Prohibition of the Emplacement of weapons of Mass Destruction on the Sea-Bed, it would be useful for Committee II to clarify the status of the continental shelf in relation to military use—a question which was raised in the Geneva Conference in 1958 but not dealt with in the Convention.[115]

[113]"FAO Statement on its Possible Contribution to Preparations for the Conference on the Law of the Sea" (Sea-Bed Committee, March, 1971), Annex, pp. 5-6.

[114]See S. Oda, *loc. cit.* in note 3 above, at pp. 425-430 and L. F. E. Goldie, "Sedentary Fisheries and Article 2(4) of the Convention on the Continental Shelf—A Plea for a Separate Regime", 63 *American Journal of International Law* (1969), pp. 86-97.

[115]See further E. D. Brown, *op. cit.* in note 96.

Consequences of Disagreement in 1973

Except in relation to the outer limit question, which was commented on above,[116] the consequences of disagreement on "issues concerning the continental shelf" are fairly obvious and require little comment. On all the other issues referred to, the result would merely be a continuation of the present and, potentially, conflict-creating position. On most of these questions, however, there is no reason to suppose that progress may not be made subsequently in rather more limited negotiations.

ISSUES CONCERNING THE TERRITORIAL SEA

Another major item which has been allocated to Sub-Committee II is that of issues concerning the regimes of the territorial sea (including the question of its breadth and the question of international straits) and the contiguous zone.

Breadth of Territorial Sea

A tabular analysis has already been presented of territorial sea claims and trends.[117] It would seem reasonable to predict on the basis of these tables that, provided states can be dissuaded from making general territorial sea claims when more limited functional claims would suffice, the prospects for general agreement on a 12-mile territorial sea are very good—except in relation to the Latin American and a few other States. On the other hand, the prospects for acceptance of a plurality of territorial sea limits tailored to the peculiar geographical, geological and biological characteristics of the coasts concerned seem to be quite remote. If this is so, a number of possibilities exist:

1. The Latin American claims may be legitimized as part of a settlement, along the lines suggested by Ambassador Pardo for a unified national maritime zone of 200 miles. This, however, seems most unlikely—if only because the Pardo proposals on fishery management within this zone are probably unacceptable to the Latin American States. As has been argued above, and will again be argued below, it would also be a mistake to encourage generalized sovereign claims of such extent in the hope—which may be disappointed—of being able to subject the exercise of sovereign rights within the 200-mile zones to various international restraints.

2. Alternatively, it may be found that the needs, especially the fishery needs, but also the security needs of the Latin American States can be satisfied by according them more specialized functional rights in their offshore areas. It is of course very difficult to know at this time whether the Latin American position is negotiable or not.

3. If it is not negotiable, then the prospects are that the present unsatisfactory conflict-generating position will continue.

[116]See above, p. 7 *et seq.*

[117]See Tables 1-6.

The Question of International Straits

A vital condition of agreement on a 12-mile territorial sea and one of the most important items on the Conference agenda will be the attainment of a satisfactory settlement of the straits problem.

As Tables 1 and 2 show,[118] 48 States (or 45 percent of coastal States) now claim a territorial sea of 12 miles, and 11 States (10 percent) claim between 18 and 200 miles. (See page 14.) Nevertheless, 45 States (43 percent) still maintain claims to less than 12 miles, and of these, 28 States (25 percent) claim only three miles. Those who claim three miles include such important maritime States as Australia, France, Japan, the Netherlands, the United Kingdom and the United States.

It is still possible—though increasingly difficult—for States claiming less than 12 miles to decline to recognize 12-mile claims. Their concern is of course due to the fact that there are some 116 straits which would become entirely territorial sea straits if a 12-mile breadth were to be accepted; whereas, at the moment, there exists a central belt of high seas waters in which the freedom of the high seas may be enjoyed.

The status of territorial sea straits is regulated *inter partes* by Section III of the Geneva Convention on the Territorial Sea and the Contiguous Zone (Right of Innocent Passage) and in particular by Article 16(4), in terms of which:

4. There shall be no suspension of the innocent passage of foreign ships through straits which are used for international navigation between one part of the high seas and another part of the high seas or the territorial sea of a foreign State.

This, however, is felt by some States to be less than satisfactory because (a) the applicability of the Convention's rules on innocent passage to warships is not beyond dispute; (b) under Article 14(6), "Submarines are required to navigate on the surface and to show their flag"; (c) the coastal State is free in the first instance to categorize a particular passage as non-innocent—e.g., the passage of nuclearpowered vessels or of oil tankers; (d) there is no right of innocent passage for aircraft through the airspace above the territorial sea.

If anything, the position under international customary law[119] is even less satisfactory since there is even more doubt about the position of warships, some States demanding prior notification and/or authorization as a condition of passage.

In order to avoid these difficulties, it is United States policy to press for a new treaty which, in the language of President Nixon's Oceans Policy Statement of May 23, 1970, "would establish a 12-mile limit for territorial seas and provide for free transit through international straits." "Free transit," it will be noted, is an entirely new concept. It would apparently permit complete freedom of passage for warships, including nuclear-armed submarines, on the surface or submerged, without notification and irrespective of mission. It would permit freedom of civilian and military flight through the superjacent air-space. Finally, it would deprive the coastal State of the power to categorize certain passages, such as those of nuclear-powered or nuclear-armed vessels and mammoth oil tankers, as non-innocent. The intention would appear to be to apply the new rule not only to the territorial sea lying beyond the old three-mile limit but to the whole of that part of the territorial sea which constitutes the strait, or part of the strait, with the exception of straits such as the Turkish straits which are subject to a special treaty regime.

It must be assumed that this is a negotiating position; there is no reason to suppose that most coastal States would be prepared to recognize such extensive rights, and they are scarcely likely to be persuaded by statements such as that of Mr. Ratiner that

> We do not recognize the 12-mile territorial sea and it is doubtful that if we fail to obtain the necessary protection through international straits at a conference, that we could accept the 12-mile territorial sea. We would as a matter of high national security priority have to maintain that we are only bound to recognize the three-mile limit if we were unable to obtain the necessary protection through straits.[120]

This is not a very strong position at a time when 55 percent of coastal States already claim a territorial sea of 12 miles or more, a rise of 29 percent since 1960. And, indeed, the initial response of a number of States to the United States proposal suggests that, at most, the international community will be prepared to recognize a considerably more limited right of transit than that advocated by the United States.

One extreme may be illustrated by the statement of the Spanish delegation in the Seabed Committee on March 16, 1971:

> While his delegation might consider increasing that limit [from the currently claimed six miles], it could see no justification whatsoever for changing the traditional regime of the territorial sea with regard to innocent passage through its waters. As his country's Minister of Foreign Affairs had recently said, the traditional rules on the subject, as set forth in the Geneva Convention of 1958 on the Territorial Sea, constituted a minimum and indispensable safeguard. That traditional safeguard of coastal States had become more urgently necessary with the growing demonstrations of naval power in certain waters and with technological development, since warships, nuclear-powered ves-

[118] See above, p. 14.

[119] See further E. D. Brown, *op. cit.* in note 96. Only 39 States, including Byelorussia and the Ukraine, are parties to the Geneva Convention.

[120] L. Ratiner, Chairman, Defense Advisory Group on Law of the Sea, U. S. Department of Defense, in Hearings on Territorial Sea Boundaries before Subcommittee on Sea-power of House of Representatives Committee on Armed Services, June 25, 1970 (H.A.S.C. No. 91-61) at p. 9291.

sels, giant tankers and ships carrying dangerous goods represented a potential threat to the peace, good order and security of the coastal States. After all, to go beyond the present regime would amount to requesting freedom of non-innocent passage.

His delegation, therefore, considered it necessary to amplify rather than to reduce the security measures recognized by international law. If it did otherwise, the Committee would not be serving the cause of peace in its development of the rules of the law of the sea, but would be helping to aggravate the existing tensions and conflicts in certain areas.[121]

Though this passage is not addressed to the question of straits, the reasoning behind the position taken is equally applicable to territorial sea straits.

A middle view, and one which seems likely to be widely held, was expressed by the Yugoslav delegation in the Sea-Bed Committee on March 22, 1971:

> Great importance appeared to be attached to the question of the freedom of passage through, and flight over, straits that lay within the limits of a territorial sea of twelve miles. The question had been stressed by the United States representative and was also mentioned by the USSR delegation in the list submitted by it to Sub-Committee II. To his delegation, that did not seem justified. Merchant ships already enjoyed the right of innocent passage; the question would therefore seem to refer to warships and submarines and it was doubtful whether any real justification could be adduced in that respect. There were of course certain straits which formed the only link between two expanses of high sea. In those cases, and only in those cases, would it be possible to speak not of the freedom of navigation and overflight, but of a special regime which would permit passage while at the same time safeguarding the security of the coastal States.[122]

The Canadian delegation, in a statement to the Sea-bed Committee on March 24, 1971, also recognized that "the traditional concept of 'innocent passage' is in need of clarification and even redefinition," and that "the notion of 'innocence' must be modernized."[123] Again, the Canadian remarks were not directed so much to the question of straits as to that of the territorial sea in general. Their concern that "future conventional law [should] provide adequate recognition of the right of coastal States to protect themselves against"[124] marine pollution damage and the suggestion that one approach "might be to provide for international pollution prevention certificates which ships would have to possess in order to qualify for 'innocent passage' "[125] do, however, again indicate another potential limitation on the freedom of transit concept.

Finally, mention must be made of Ambassador Pardo's views, made in the context of his proposal for a new order for ocean space that would recognize coastal State jurisdiction up to 200 miles from the coast.[126] Dr. Pardo would distinguish between (1) straits providing the only or the main access to internal seas or gulfs of particular importance for navigation or international security and (2) straits that constitute only one of several entrances to marginal seas or which give access to seas where navigation is hazardous because of climatic conditions.

It was felt that navigation through straits in the first category — e.g., the Straits of Gibraltar, Tsushima (north of Kyushyu in Japan), the Sundi (between Denmark and Sweden), Tiran (Gulf of Aqaba), Bab-el-Mandeb (southern entrance to Red Sea) and Hormuz (Persian Gulf)—because of the importance of these straits to the international community and the vital interest of inland coastal States in free access to the oceans, should be regulated by the international institutions which Dr. Pardo envisaged elsewhere in his statement. Under this regime freedom of transit would be guaranteed in time of peace with safeguards for the security and other interests of the coastal State.

For the second category—straits such as those providing a number of access routes to the Carribean and China Seas—Dr. Pardo suggested a status intermediate between that suggested for first category straits and that proposed earlier in his statement for a strengthened freedom of innocent passage for the entire 200-mile zone of national jurisdiction.

Both because of considerable reservations about the desirability and negotiability of a 200-mile zone of national jurisdiction and because of doubts about the readiness of the coastal States concerned to envisage control of strategic straits being exercised by an international institution, I do not believe that these proposals are practicable at this time.

The idea of distinguishing different classes of straits —also proposed by the Yugoslav delegation[127]—does, however, seem to be a sensible one. One approach along these lines might be to examine the 116 straits which would lose their belt of high seas if agreement were reached on a 12-mile territorial sea, with a view to identifying (a) those which form the only link between two expanses of high seas and (b) those which provide the only or main access to internal seas or gulfs of particular importance for navigation or international security. The feasibility might then be explored of preserving in these straits a high-seas type of freedom of navigation and overflight in the belt previously recognized as high seas, or alternatively in the waters of the strait lying beyond six miles of either coast. If such a proposal is not negotiable in relation to (a) and (b), it may be negotiable in relation to

[121] A/AC. 138/SR. 48, p. 13.

[122] A/AC. 138/SR. 54, p. 12.

[123] Text of Mr. A. Beesley's speech, at p. 9.

[124] *Ibid.*, p. 14.

[125] *Ibid.*, p. 16.

[126] Statement by Ambassador Pardo in Sea-Bed Committee on March 23, 1971, at pp. 63-67.

[127] A/AC. 138/SR. 54, p. 12.

(a) or even to particular straits in either or both categories which could then be identified in the Convention.

Issues Concerning the Regime of the High Seas

The "comprehensive list of subjects and issues relating to the law of the sea," which is part of the mandate of Subcommittee II of the Seabed Committee, is to include "those concerning the regime of the high seas" and the Subcommittee is further required to prepare draft treaty articles thereon.

Leaving aside the question of preservation of the marine environment and scientific research, which fall within the terms of reference of Subcommittee III, it is not at all clear what "subjects and issues" will be considered in need of reexamination. However, mention may be made of a few possibilities.

Land-locked States

The Bolivian delegation in the First Committee has referred to "the urgent need to hold a preliminary and preparatory conference of the land-locked countries in order to study a possible codification of the right to free access to the sea . . . "[128] and it is understood that, in fact, series of informal, off-the-record meetings were held in New York during the 25th General Assembly. In its reply to the Secretary-General on the desirability of convening a Law of the Sea Conference, the Bolivian Government states that

> The preparatory work should include something that is already recognized as a part of the law of the sea that requires further development, namely, the aspects relating to the right of free access to the sea, which were incorporated in article 3 of the Geneva Convention on the High Seas.[129]

On the basis of the very limited information available to the writer on this subject, it is impossible to predict the prospects for a revision of Article 3 of the Geneva Convention or of the Convention on Trade and Transit of Land-Locked Countries concluded in new York in 1956.[130] It might well be felt that, given the time factor and the fact that these problems can be dealt with in UNCTAD, little priority need be accorded to them in the context of a comprehensive conference on the law of the sea. On the other hand, one can understand the wish of the land-locked States to have matters reconsidered in a forum where their voting power on other issues may be a useful bargaining counter.

Nationality of Ships

Article 5 of the Geneva Convention on the High Seas, dealing with nationality of ships and the genuine link requirement, is, in its unsatisfactory formulation, a reminder that precise agreement proved unattainable in 1958. The prospects are no better now and it will occasion no surprise if this subject is left strictly alone. The only factor which might reactivate discussion of this question is the concern that flag-of-convenience ships may be disproportionately responsible for oil spills because of failure to adopt the Load-on-Top system—the writer has not seen the evidence to support this allegation—or, more generally, anxiety over the difficulty of bringing action against such ships in the event of damage by oil.[131]

Other High Seas Issues

There are of course other problems, concerned with *inter alia* the commercial aspects of navigation, routing schemes, and the status of ocean data acquisition systems. These and other technical questions are, however, better dealt with and are being dealt with in more specialized institutions and are unlikely to arise for consideration by the 1973 Conference.

Issues Concerning Fishing and Conservation of the Living Resources of the High Seas (including the Question of the Preferential Rights of Coastal States)

It is probably still true to say that most people, most of the time, are in favor of motherhood and against sin. One can perhaps say with equal confidence that most people most of the time are against overfishing, against dissipation of economic rent from fisheries and in favor of effective management. If, however, we descend from this level of abstraction it is as difficult to identify the main elements of a generally acceptable form of effective management as it is to formulate an acceptable definition of sin. Indeed, having recently heard Mr. Taylor Pryor confidently forecast, on the basis of his considerable experience, that fish farming will make the traditional sea-hunting of fish obsolete and could do so in the short term given the necessary funding,[132] the writer was tempted to sidestep the issue by recommending that the necessary funds be made available to hasten this happy day by abandoning the space program!

Fishery economists[133] inform us that there is a danger that present fishery practices will result in the overfishing and depletion of stocks of valued species; that effective management is required to deal with the problem; that effective management depends on the participation of all or at least of the great majority of those exploiting a given stock of fish;[134] and requires, as a basis for

[128] A/C. 1PV. 1783, p. 97.

[129] *Ibid.*, p. 91.

[130] 19 UST 7383; TIAS 6592; 597 UNTS 42.

[131] *Cf.* the Jamaican representative's statement in the Sea-Bed Committee on March 18, 1971, at p. 6, that "Any new comprehensive conference on the Law of the Sea must of necessity review this entire question in depth and this, of course, with particular reference to flags of convenience."

[132] In an unpublished address on May 25, 1971 at Woodrow Wilson International Center for Scholars. Mr. Pryor is Head of the Oceanic Foundation and Institute, Makapuu Point, Hawaii.

[133] See, e.g., F. T. Christy and A. Scott, *The Common Wealth in Ocean Fisheries*, (Baltimore: Johns Hopkins Press, 1965), and *The State of World Fisheries*, (Rome: FAO, 1968).

[134] FAO, *loc. cit.* in note 133, at p. 4.

regulatory measures, information on the population dynamics of the stock or stocks concerned. The regulatory measures, it is widely agreed, must include some control on the amount of fishing.

If we lived in an antiseptic world ruled by the dictates of economics, it would probably also be agreed that the objective of management should be rent-maximization or economic efficiency. As Christy and Scott have shown, adherence to this *economic* theory rather than to the *biological* principle of maximum sustainable yield has many advantages—in preventing waste of capital and labor and in resolving problems of choice between different but ecologically-related species of fish and their related competing areas, nations and industries.[135]

But the economists—or at least some economists—recognize with the rest of us that solutions which economics might dictate have to be modified to take account of a variety of other factors; the dependence of a State or locality on a fishery for employment, source of animal protein or satisfaction of traditional food preferences; the national *amour propre* associated with extensive claims to fishery jurisdiction; the desire of many peoples to participate in as well as benefit from fishery exploitation; the lingering anti-colonialist, anti-monopolist-capitalist resentment against the alleged oligopoly imposed by the fleets of about 10 percent of the world community of States because of their economic and technical capacity;[136] the conflicts between the interests of coastal States concerned to preserve their offshore resources and those with developed distant-water fleets.

Neither space nor time will permit me to present a comparative analysis of the many solutions which have been suggested in the literature or to indicate why many of them are of no more than theoretical interest, given the current political milieu. Instead, it is proposed to give a brief account of the present extent of claims to exclusive fishery jurisdiction (complemented by speculation on likely sympathetic emulation by some other States); to present in summary form what seem to be the main strands in the Conference preparatory debates so far, with a view to assessing the likely outcome; and finally to suggest that failure will be less likely if the negotiations reflect and accept as guidelines a few basic current trends.

Extent of Present Fishery Jurisdictional Claims and Trends

The analysis by region and breadth of the claims to exclusive fishing or fishery conservation zones in excess of 12 miles presented in Tables 4 and 5, taken together with the analysis of territorial sea claims in Tables 1 and 2,[137] show that although a few States in Africa and Asia have made fairly extensive claims, Latin America is still the only region where the great majority of States have adopted very extensive limits. (See page 14.) The same comment seems apposite here as was made above in discussing the regime for the exploitation of the seabed, that is, that a number of States have probably decided to keep their options open until the terms of and prospects for international agreement in 1973 become clearer. If a satisfactory formulation of the concept of preferential rights for coastal States does not materialize, it seems not unlikely, on the basis of the preparatory debates further referred to below, that a number of States will make unilateral claims either to extensive territorial sea limits or extensive fishery limits.

Significant Strands in Conference Preparatory Debates

Perhaps the central issue in the fisheries debate is that of preferential rights for coastal States and it may be appropriate therefore to begin by looking at the policies of two island States, one of which, Iceland, embodies and illustrates *par excellence* the need for preferential rights, while the other, Japan, with its considerable stake in distant-water fishing, is possibly the State most strongly opposed to recognition of special or preferential rights.

The policy of the Icelandic Government has a certain classic simplicity and inevitability about it. Given the fact that 80 percent of Iceland's foreign currency earnings and 90 percent of her exports are derived from the fisheries; that fish stocks in the North East Atlantic are being depleted at an alarming rate: that international conservation plans have in Iceland's view failed[138]—there would seem to be only one sensible policy to adopt. It has been stated by the Icelandic Foreign Minister as follows:

> We maintain that coastal States are entitled to establish the limits of their coastal jurisdiction within a reasonable distance, having regard to geographical, geological, economic and other relevant considerations. We realize that many States consider that a limit of twelve miles is sufficient for their purposes although in point of fact coastal jurisdiction varies now from three to 200 miles. In the special situation where a nation is overwhelmingly dependent upon its coastal resources a limit of twelve miles is not sufficient. In the case of Iceland, jurisdiction and control over the continental shelf and the waters above the shelf are reasonable and just and should be recognized by the international community.[139]

It will be noted that, although this statement clearly implies a preference for agreement rather than unilateral action, its first sentence also bears a close resemblance to the Latin American doctrine.

Although the Foreign Minister's reference was to "jurisdiction and control over . . . the waters above the shelf," it would seem that exclusive jurisdiction over fisheries is essentially what Iceland seeks. Thus her delegate in the First Committee hoped that the

[135] *Op. cit.*, in note 133, at pp. 221-222.

[136] A. Schreiber (Peru), Second Statement to Sea-Bed Committee, Geneva, March 24, 1971, at p. 2.

[137] See above, pp. 14-15.

[138] A/C. 1/PV. 1782, p. 41.

[139] *Ibid.*, p. 42.

1973 Conference would "grant the coastal State explicitly exclusive jurisdiction over the coastal fisheries"[140] and stated that Iceland's chief aim at the Conference would be "the recognition of exclusive jurisdiction over the resources of the coastal areas."[141] In his view, "such a jurisdiction is based on obvious economic justice. It is manifestly illogical to allow the coastal State to utilize the natural resources of the continental shelf, but not the natural resources of the superjacent waters."[142]

Japan takes a very different view. Professor Oda's thinking is probably very close to the official Japanese policy. In his recent Hague lectures, he was of the opinion that

> There appears to be no reasonable ground for suggesting the 12-mile zone for exclusive fishing by the respective coastal State. But one cannot ignore recent developments. If for no other reasons than to preserve the stability of the international community, that is to say, to maintain the balance between exclusive interests of the various coastal States and the community interest as a whole, acceptance may be suggested of the idea that each coastal State has the right to control all fishery resources within its 12-mile offshore areas.[143]

Developing this same theme, the Japanese representative pointed out in the Seabed Committee that

> If all the fishing grounds of the world came to be placed under the exclusive jurisdiction of a limited number of coastal States adjacent to those grounds, the results would be detrimental not only to those nations at present engaged in distant-water fishing, but also to the developing nations which were trying to promote their distant-water fishing, taking advantage of their comparatively low labor costs.[144]

If a 12-mile fishery zone could only be accepted with such reluctance, clearly the idea of preferential rights beyond the 12-mile line would be anathema. It certainly is to Professor Oda, who describes it as "ambiguous and subject to a variety of interpretations."[145] Later in his lectures, recognizing that "the principle of a preferential share for the coastal State has met with acceptance among a number of States,"[146] Professor Oda examines the comparative merits of free competition and "arbitrary allocation," as well as the feasibility of establishing an international management of high seas fisheries. Pointing to the formidable difficulties of achieving an acceptable form of either "arbitrary allocation" or international management in the context of the present system of international society, he concludes that it would be premature to discard the basic principle of free competition.[147]

Other States are more open to persuasion and the statement of the Danish representative in the First Committee typifies the view of many of them that the "granting to certain States [of] preferential rights to fish in areas adjacent to the territorial sea . . . may be necessary in the case of countries whose economy is particularly dependent on fishery." Like Denmark, they "support the idea that reasonable provisions be worked out in this field."[148] The difficulty of course is that it will not always be easy to agree on which States are deserving of such special consideration or on what are reasonable provisions. As Professor Riphagen (Netherlands) has recognized, what is needed are international measures of conservation which duly recognize the preferential requirements of both States which are dependent upon fisheries, and States which owing to their social and economic structure and the stage of their development are in need of protective measures for their fishing activities.[149]

One added complication of recent origin is the fact, reported by an FAO spokesman and alluded to in the above-quoted speech of the Japanese representative[150] that

> The number of countries involved in long-range fishing beyond the vicinity of their own coasts is also increasing and includes already, often as a result of bilateral and multilateral assistance programs, several developing countries. This last trend constitutes an important development since the 1958 Conference, as more countries with strong and sometimes conflicting fishery interests will take part in the new Conference.[151]

Very few States have indicated, even in general terms, how they propose to give concrete form to the notion of preferential rights. One exception is the United States. Perhaps the clearest public statement of the United States approach to the fisheries question is that of Mr. Stevenson in the Seabed Committee on March 18, 1971:

> The question of protecting coastal State fisheries interests beyond the territorial sea can be approached from several perspectives. We all recognize that anything we do must reflect our common interests in assuming conservation of the world's fisheries. However, recent technological developments have emphasized not only the need for conservation but the economic problems of coastal States in protecting their coastal fishermen. A simple proposition would be to give the coastal State exclusive fisheries jurisdiction in a

[140] A/C. 1/PV. 1782, pp. 42-45.

[141] *Ibid.*, pp. 43-45.

[142] *Ibid.*

[143] *Op. cit.*, in note 3 above, at p. 425.

[144] A/AC. 138/SR. 53, p. 8.

[145] *Op. cit.* in note 3 above, at p. 426.

[146] *Ibid.*, p. 418.

[147] *Ibid.*, pp. 418-421.

[148] A/C. 1/PV. 1782, p. 48.

[149] Statement by Prof. W. Riphagen (Netherlands) in Sea-Bed Committee, March 1971, pp. 12-13.

[150] Text above at note 144.

[151] "FAO Statement on its Possible Contribution to Preparations for the Conference on the Law of the Sea", A/AC. 138/32, p. 2.

> zone of fixed breadth or to give it specific preferential rights in such a zone. A more complex solution would recognize that neither fish nor fisherman can be separated by artificial lines, and that coastal State rights should be based upon the economic interests of coastal State fishermen in a stock of fish associated with adjacent coastal waters rather than upon the distance of the stock from shore. It is our view that the latter approach more closely reflects the biological and economic realities upon which any sound accommodation of interests should be based. While a basic rule of law would be established, the effects of its application would vary with different economic conditions in different parts of the world. The fact that different coastal States have different interests in fisheries itself commends a certain flexibility, but does not mean there can be no universal rules. It merely means that the rules should require a balancing of interests, and not prejudge what the particular result should be with respect to every stock of fish in every part of the world. Such rules could be formulated to make maximum use of international or regional fisheries organizations.[152]

Dr. Christy, speculating on the United States policy prior to this statement, after describing the American bilateral treaty practice of the past several years, commented that

> The trend of such negotiations is presumably leading us to a definition of preferential rights in terms of guaranteed quotas or shares of the annual yields of particular stocks. This would serve to close off access to those particular stocks and leave access open and free to stocks that we are not presently utilizing. This treaty-by-treaty and stock-by-stock approach produces an inordinately complex web of agreements. It is also a fairly primitive approach, relying on a bartering of privileges rather than on an economic market. It is, however, pragmatic in the short run and deals fairly effectively with immediate situations. Whether it will lead eventually to a more rational and orderly scheme is questionable.[153]

It is moreover very questionable whether the universal rules to which Mr. Stevenson referred could be much more than an undertaking to reject extensive national fishery areas as a basis for fishery regulation and to proceed to negotiate arrangements for particular stocks.

It may turn out that, failing agreement in 1973, the United States will have no alternative but to continue negotiations on this basis, wherever possible. It seems unlikely, however, that the United States suggestions will commend themselves to the Seabed Committee or the 1973 Conference as a basis for comprehensive conventional rules. It would seem to be quite unrealistic to suppose that anything more than a negotiating framework can be agreed upon by 1973 and this, in the writer's judgment, would not suffice to prevent further unilateral extensions of fishery limits.

The position of Iceland as a coastal fishing State has already been mentioned. Another coastal fishing (rather than distant-water fishing) State which is unlikely to find the United States position attractive is Canada. Speaking in the Seabed Committee recently, Mr. Beesley suggested an alternative approach:

> Any complex proposals based on proof by a coastal State of economic necessity for its industry, or on preferential rights based on amount of investment, on sharing of quotas, etc. will involve endless disputes which will be difficult to settle, while in the meantime the fishery resources of a coastal State will be disappearing. Furthermore the coastal State being only one of a number of fishing States, may be outvoted by the distant-water States. We therefore consider that any proposal for the solution of the fisheries problems must be realistic in according the coastal State a degree of control in the conservation of the living resources of the sea lying off its coasts.[154]

The Canadian Government intends to put forward specific proposals along these lines—presumably at the next meeting of the Seabed Committee in July-August 1971. While the details are still unknown, it is clear that Canada continues to consider it to be a sensible policy "[to separate] out from the total bundle of jurisdictions, together comprising sovereignty, which are subsumed within the concept of the territorial sea, of particular jurisdictions such as exclusive fisheries control and conservation."[155]

Discussion of the Latin American attitude has been reserved until now because in the writer's judgment—and this can only be highly speculative at this time—there are so many conflicting interests, so many gaps in both knowledge about the fisheries we are attempting to regulate and in research on alternative regimes and their implications, that it would be rash to expect that the international community is capable of reaching agreement by 1973 on a satisfactory system of preferential rights for coastal States. Failure to do so will almost certainly result in the establishment of many more wide jurisdictional claims, hopefully to exclusive fishing zones but perhaps to extended territorial seas. This being so, it is all the more important to take a very sober look at the present position of the Latin American States.

It would be foolish to entertain any doubts about the determination with which the Latin American States will adhere to the basic principles of their doctrine and rather futile to continue to question the scientific validity of the so-called "bioma" and "ecosystem" arguments on which the CEP countries base their claims. It would seem to be more useful to weigh up the pros and cons of the CEP doctrine as a basis for a rational system of

[152]Text of Mr. Stevenson's Opening Statement, at p. 3.

[153]F. T. Christy, "Implications for Fisheries of the U. S. Draft Convention on the Sea-Bed" (Marine Technology Symposium on The Law of the Sea: A Year of Crisis, February 19, 1971), at p. 7 (of duplicated paper).

[154]Statement of March 24, 1971, at p. 12.

[155]*Ibid.*, at p. 10.

fishery management. In doing so, it is quite unnecessary to assume that the doctrine is inflexible.

First, what are the objections to the system? It is frequently argued that extensive zones of national fishery jurisdiction are biologically undesirable because they do not permit effective managment of stocks which migrate beyond the zone concerned and that they are economically wasteful because States with a weak economic or technological base may underexploit the stocks or some of the stocks within their boundaries. However, these arguments are not very convincing, since they assume a degree of inflexibility in the current position of the Latin-American States which is probably unjustified.

As regards the biological argument, much of the difficulties of rational management could be overcome by regional cooperation. The CEP States are already organized to some extent as regards the South Pacific area, and of course the Latin American States in general are working in close consultation on maritime questions, as the recent Lima and Montevideo Conferences have shown. Where a particular stock extends beyond even a regionally coordinated zone of 200 miles in width or where it is recognized that a much more widely-based system is necessary, there is no reason to assume that the regional organization or its members will not be prepared to explore the feasibility of, for example, the kind of worldwide tuna convention which Mr. Kask has advocated.[156]

Nor are the economic arguments conclusive. The representative of Peru has been at pains to emphasize that

> . . . it is incorrect to imply that those of us who have extended our jurisdiction up to [200 miles] seek the abolition of the high seas, the parcelling out of oceans and the prohibition of the freedom to fish in the world. Besides, not even within our national jurisdiction have we excluded fishing by foreigners, but only that of those species which we need for development. As regards the remaining species, we allow foreign fishing, with no other conditions but respect of regulatory measures destined to preserve resources taking into account the preferential rights of coastal States, and the payment of modest sums for licenses and fishing permits.[157]

Looking at the positive advantages offered by extensive national fishery zones, national jurisdiction carries with it a clear and easily exercised right to control the amount of fishing and to regulate access to the fishery in such a way as to strike a nationally-designed balance between the extraction of maximum economic rent and satisfaction of fishery-related social needs. Second, as Dr. Christy has shown in the case of Ecuador,[158] income may be raised from the collection of registration and license fees and fines which may be devoted to enforcement, conservation and management—in the case of Ecuador partly through the regional South Pacific Commission. The payment of such revenues, or part of them, to a more widely-based international institution, regional or universal, on the basis of internationally prescribed guidelines is not beyond the realm of possibility.

One of the big stumbling blocks is, of course, the tendency for such fishery zones to involve the exclusion even of foreign fishermen who may have fished in the area habitually in the past and who may claim their entitlement to prescriptive rights. This is not, however, a new problem. Provision can be made for either the phasing out of such rights—as proposed in the "6 + 6 formula" at the 1960 Conference[159]—or the perpetuation of vested rights—as in the case of the European Fisheries Convention of 1964.[160] Under this Convention, the right to fish in the 6-12 mile-belt of Contracting States—the fishing vessels of which had habitually fished in that belt—was preserved without limitation of time but subject to the limitation that they may not direct their fishing effort towards stocks of fish or fishing grounds substantially different from those they had habitually exploited. The coastal State is permitted to regulate the fisheries in the 6-12-mile belt but is under a duty not to discriminate in form or in fact against fishing vessels of contracting parties.[161]

One of the chief virtues of recognizing extensive national zones as a basis for further planning is that even if satisfactory arrangements cannot be concluded by 1973, no great harm would be done. The negotiations which could continue thereafter would not be inconsistent with the predominant trend in State practice.

Mention must also be made of Dr. Pardo's proposals for dealing with the fisheries question. As was seen, Dr. Pardo has proposed the establishment of zones of national maritime jurisdiction out to 200 miles from the coast in place of the existing multiplicity of maritime limits. Proceeding on the assumption that "effective management can only be undertaken through institutions that have the power to allocate the right commercially to exploit fisheries beyond national jurisdiction and to set the conditions under which the exploitation can take place,"[162] Dr. Pardo, adopting proposals publicized by FAO,[163] suggested that "an essential tool in this connection would be the power to levy a tax or license fee on commercial fisheries. . . ."[164]

Dr. Pardo proposed to use this mechanism both on a national level within the 200-mile zone and also in

[156]J. L. Kask, "Tuna—A World Resource" (La Jolla, California, December 15, 1968, mimeo.), cited by Christy, *loc. cit.* in note 153 above at p. 10.

[157]*Loc. cit.* in note 136 above, at p. 3.

[158]*Ibid.*, at p. 8.

[159]Under the "6+ 6 formula" proposed by Canada and the United States (failed to secure necessary two-thirds majority by one vote), a 10-year phase-out period was provided for foreign vessels which had "made a practice of fishing in the outer six miles" during the preceding 5 years.

[160]Cmnd. 2355-1964.

[161]Articles 3-5.

[162]Speech to Sea-Bed Committee, March 23, 1971, at p. 39.

[163]FAO, *loc. cit.* in note 133, at pp. 22-23.

[164]*Loc. cit.* in note 162.

the international waters beyond. In both cases the purpose of the levy would be "to simplify allocation of quota shares and to discourage new entrants by making commercial fishing only moderately attractive, (and) by ensuring that the value of the catch does not greatly exceed the cost of catching plus license fee. (Thus) the latter should be increased as the results of good management show up in higher catch values."[165]

It was envisaged that the surplus resulting from improved management would accrue to international institutions and be used in part for the benefit of coastal States abstaining from participation in fisheries beyond their 200-mile zone of national jurisdiction.

So far as the national domain is concerned, these ideas may well be useful as a mechanism for controlling the amount of fishing. In the writer's view, however, Dr. Pardo's proposals for the international sphere are just now within the bounds of political feasibility at this time and assume a much higher degree of integration in international society than either presently exists or is likely to be attained in the near future.

Prospects for 1973

As the above excerpts from the international debate show, unprecedented speed and skill will have to be exhibited in the forthcoming negotiations if unity is to emerge from the present diversity of views on the regulation of fisheries. Even educated guesswork as to the consequences of failure to reach a settlement in 1973 is unduly hazardous. It is perhaps reasonable, however, to expect that a number of general concepts which are already gaining ground will mold future developments. Among these may be mentioned (1) extensive national fishery limits, (2) an awareness that a rational fishery policy must concern itself with economic efficiency—even though in the short run it may have to make allowances for non-economic social considerations, (3) regionalism as a basis for scientific fishery research, conservation and development, and (4) the common heritage of mankind, a notion which has referred so far mainly to the resources of the seabed. Dr. Christy is surely right in suggesting that we must expect what he calls a case of "creeping common heritage." Especially if coastal States opt for extensive national zones, demands from land-locked, shelf-locked and distant-water fishing States for an "equitable share" in the proceeds will surely follow.

If this projection is valid, it would seem to follow that the coming negotiations might stand more chance of reaching a successful conclusion if the proposals on which they are to be based are in sympathy with these concepts. To recapitulate, the fisheries question relates to both national coastal zones and international zones. What is envisaged is the recognition of broad national fishery zones coordinated through regional arrangements on the basis of universally agreed guidelines, including the possibility of cooperation with worldwide systems. Recognition of broad national zones would facilitate management by preserving it as a national governmental and, therefore, precedurally relatively simple, function. Regional coordination would permit economies in research and development and enable the member States to base their management to a greater extent on facts related to a stock of fish rather than on the incomplete data from within their national boundaries. Universally agreed guidelines might relate to questions such as phasing out or perpetuation of the fishing rights of habitual but distant-water fishing fleets; the standardization of licensing policies and distribution of surplus revenues.

ISSUES CONCERNING SCIENTIFIC RESEARCH

In the limited space available in this paper, it must suffice to refer to the existing literature for an analysis of the now well-known problem of scientific research in the oceans and a presentation of the proposed solutions which have been offered from a number of sources.[166] It is not necessary to enter into very much detail on the possible consequences for this freedom of an unsuccessful Conference in 1973. The Conference, if it fails, is not going to fail because agreement cannot be reached on this part of its agenda, and there is no reason to doubt that the existing efforts in various international institutions to improve the position of scientific research will continue.

This is not to say, however, that agreement will be easily reached in 1973 on a satisfactory accommodation of the needs of the marine scientist. The references to this subject which have already been made in the preparatory discussions do not encourage optimism.

Lest it be thought that only foreigners insist on subjecting scientific research in offshore waters to national control, it may be appropriate to begin with a quotation from the recent *Supplemental Report of the National Petroleum Council* (NPC).[167] It will be recalled that it was proposed in the Draft UN Convention on the International Seabed Area contained in the US Working Paper of August 3, 1970, that States should abandon all claims to sovereignty or sovereign rights in the seabed area beyond the 200-meter isobath.[168] In the context of the Draft Convention, one of the implications of this provision was the elimination of all coastal State control over scientific research beyond the 200-meter isobath.

In calling for a reconsideration of this proposal, it was commented in the NPC Report that

> With the expanding capabilities of scientific research vessels, one can no longer assume that they pose no threat to the marine environment or to other users of the sea and shore. [note omitted] The August 3 Draft recognizes the propriety of

[165] *Ibid.*, p. 40, quoting (inexactly) the FAO booklet cited in note 133 above, at p. 41.

[166] See literature cited in notes 13 and 98 above.

[167] *Petroleum Resources under the Ocean Floor. Supplemental Report of the National Petroleum Council*, (Washington, D. C.: National Petroleum Council, March 4, 1971).

[168] On U. S. policy, see also Article 24 of the draft UN Convention and Mr. Stevenson's speech to Sub-Committee III of the Sea-Bed Committee on March 25, 1971.

> coastal States imposing restrictions on commercial operators in the International Trusteeship Area over and above those imposed by the international regime; yet, it denies the coastal States any control whatever over scientific research activities. While the NPC is strongly in favor of encouraging research activities on the ocean bottoms, it believes that these should naturally be subject to the same regulations with respect to pollution, safety, and interference with other uses of the seabed as would apply to commercial operations.[169]

Reference was made to the drilling capacity of the *Glomar Challenger* and to its lack of blowout control in the event that it should strike oil or gas under high pressure. It was concluded that

> . . . one may reasonably ask if the August 3 Draft is on sound ground in denying the coastal State any authority whatever over drilling decisions of this type on its continental margin beyond the 200-meter isobath.[170]

The Canadian spokesman, speaking in the Seabed Committee on March 24, 1971, and referring to the conflicting interests between those who seek to protect coastal State interests and those seeking to ensure maximum freedom of marine scientific research, described his government's position as lying somewhere between these two extremes. It remains to be seen how this position will be made concrete, but if it is recalled that Canada is clearly wedded to the concept of functional jurisdictional zones *inter alia* for fisheries, pollution control and defense, it seems likely that whatever freedom she will allow in her offshore waters will be subject to some conditions. Mr. Beesley went no further than to say that "perhaps the key lies in freedom of research in exchange for freedom of information."[171]

While it is difficult to forecast the attitude which many States will take when they are called upon to do more than make general statements, there is little doubt that a starting point for many States will be the view expressed in the Seabed Committee by the Ethiopian delegation:

> Again, scientific research can also infringe on security. No one doubts the cardinal importance of encouraging scientific research. But it can be a source of cooperation and not of conflict between States only when conducted under the supervision of States in areas within their jurisdiction.[172]

Once again, liberalism seems more likely from States which have trained scientists and technicians able to participate in marine research and benefit from its product. The need then is for emphasis on international cooperative inquiry and the provision of extensive research and training facilities for the developing States.

The attitude of States which are almost certain to continue to demand a substantial degree of jurisdiction over scientific research in coastal waters has been restated recently by the Brazilian delegate in the Seabed Committee.

> With regard to scientific research, it was not always possible to distinguish between pure research and research for economic or military purposes. In the last analysis, every particle of scientific knowledge could be translated into terms of economic gain or national security and, in a technological society, scientific knowledge meant power. Consequently, it was imperative that coastal States should exercise some form of control over scientific research off their coasts, even when it was carried out under the auspices of purely scientific institutions. That such control was necessary was well exemplified by the Geneva Convention on the Continental Shelf, which could not be suspected of excessive tolerance with regard to the rights of coastal States.[173]

Issues Concerning the Preservation of the Marine Environment (Including *inter alia*, the Prevention of Pollution)

As in relation to freedom of marine scientific research, so in relation to marine pollution, it would be a mistake to regard 1973 as a "make or break" year. The protection of the environment in general and of the marine environment in particular is a vast, complex problem, and the most sensible perspective in which to consider the 1973 Conference is one of a continuing series of more or less coordinated and complementary attacks on the problem by a number of international institutions. It is beyond the scope of this paper to do more than refer to a survey of the work which has already been done on this question.[174] In view of the earlier emphasis on functional boundaries, however, it may be appropriate to comment briefly on this aspect of the problem.

As is well known, the issue has been the subject of controversy recently following the adoption by Canada of the Arctic Waters Pollution Prevention Act of 1970, a unilateral attempt to provide for the preventative protection of the coastal State's environment, allegedly necessitated by the failure of the international community to make adequate provision on the international level.

Many of those disturbed by the Canadian legislation are clearly concerned less over its substance than over the manner and implications of its unilateral adoption, fearing that it might encourage further unilateral and often less justifiable claims by other States at a time when the international community is endeavoring to reach unilateral solutions of maritime problems. There is no denying that States like Jamaica which are heavily dependent on tourism are peculiarly vulnerable to damage by marine pollution, and may well feel obliged

[169] *Loc. cit.* in note 167 at pp. 36-37.

[170] *Ibid.*, p. 37 (note).

[171] Mr. Beesley's speech, at pp. 16-17.

[172] Statement by Ambassador Imru, March 23, 1971, at p. 6.

[173] A/AC. 138/SR. 54, p. 9.

[174] See E. D. Brown, *The Legal Regime of Hydrospace*, 1971, Part Three: Environmental Protection of Hydrospace.

to emulate the Canadian action unless progress is made on the multilateral level.[175]

It is, therefore, encouraging that the Canadian Government is now emphasizing its awareness of the need for international agreement on this question. The Canadian position has recently been restated by Mr. Beesley in the Seabed Committee on March 24, 1971. *Inter alia,* he stated that

> . . . the freedom of peaceful navigation cannot be exercised in an irresponsible manner or under a laissez-faire system which threatens the very existence of the marine environment upon which all depend. An effective regime for the prevention and control of marine pollution must be devised and must inevitably lay down internationally agreed restrictions with respect to the maritime transport of pollutants and contaminants. Such a system would have to go beyond remedial and compensatory measures, and would have to provide preventative protection of the interests of the international community as a whole and the coastal States in particular. Because the coastal States are those which suffer the most immediate and drastic effects of marine pollution damage, future conventional law will have to provide adequate recognition of the fundamental right of coastal States to protect themselves against this threat to their environment.[176]

Recognizing, however, that the exercise by the coastal State of an extensive pollution jurisdiction "may have serious implications for the activities of all classes of vessels of all nations, in the territorial sea, in exclusive fishing zones, through international straits, and on the high seas proper," Mr. Beesley expressed his government's "wish to emphasize that national action, while necessary and justified to meet particular problems is not alone sufficient either in terms of combatting the marine pollution problem in general or satisfying the wide range of interests involved at both the domestic and global levels."[177]

Mr. Beesley's approach has much in common with that of Professor Riphagen of the Netherlands. Doubting "whether the system of extension of *sovereign* rights of the individual State over a sea area adjacent to its coast up to a specific *distance* can give an adequate solution to the problem," Professor Riphagen suggested that ". . . the functional approach, according to which, within the framework of an international set of rules and procedures, the States most concerned in the different uses of any area of the seas might be empowered to take the necessary measures, may provide more satisfactory results.[178]

The Canadian Government is thinking along the same lines:

> What we envisage is the elaboration of a system of internationally agreed pollution prevention regulations, with enforcement largely in the hands of coastal States, but with the least possible interference of passage. One approach, for example, might be to provide for international pollution prevention certificates which ships would have to possess in order to qualify for "innocent passage."[179]

Whether the restraints on shipping implicit in such proposals will be any more acceptable in 1973 than were the proposals of the Canadian Government at the IMCO Oil Pollution Conference in Brussels in November 1969[180] must remain doubtful. The alternative may well prove, however, to be considerably more burdensome: the adoption of a multiplicity of limits within which coastal States may seek to protect their interests by the enforcement of a variety of unilaterally prescribed standards.

CONCLUSIONS

In drawing together the threads of this inquiry, it is not proposed to recapitulate on the conclusions tentatively stated following the separate consideration of each of the major agenda items.[181] Those may be taken as read. It is proposed rather to conclude by offering the following propositions as suggested by this essay as a whole:

First, it would be a mistake to follow the gloom and despondency school of thought and to exaggerate the consequences of failure to agree in 1973. In the writer's view, such consequences will be catastrophic only for those who have entertained expectations quite out of keeping with present trends in international relations. While the consequences will be serious, failure need not block fresh developments on a great many of the issues on the Conference agenda.

Second, on the key question of a seabed regime, perhaps an astrologer would be better equipped than a lawyer to foresee the future. An attempt has been made to identify the wide variety of strongly held views on this topic and to forecast the reactions of some of the groups concerned in the event of a Conference breakdown.[182] It must be confessed that none of the proposals currently under consideration bears the mark of an accord capable of attracting ratification by the generality of States. The writer's personal preference for a negotiating position remains what it was when he addressed this Institute's Annual Conference two years

[175]"The Jamaica delegation would, however, wish the Sub-Committee, in considering the question of pollution, to study in depth the adverse effects which could be caused by marine pollution (particularly that of oil) on the economies of countries which to a large extent depend on tourism." (Jamaican representative's Statement in Sea-Bed Committee, March 18, 1971, at p. 6.)

[176]Statement, at pp. 13-14.

[177]*Ibid.*, p. 15.

[178]Prof. Riphagen's Statement in Sea-Bed Committee, March 1971, at p. 8.

[179]Mr. Beesley's Statement, at p. 16.

[180]See *op. cit.* in note 174 above, pp. 148-151.

[181]See above, pp. 13-15, 23, 25, 33-34.

[182]See above, pp. 7-13.

ago[183]—a wide national continental shelf, limited by a conventional requirement to contribute a share of the profits of its exploitation to an international fund. For those who wish to ponder further on the possible permutations of State interests, Table 7 is an analytical table on the membership of the Seabed Committee and shows some of the key characteristics and geographical distribution of the member States responsible for the preparatory work of the Conference.

[183] *The Law of the Sea. National Policy Recommendations*, ed., Lewis M. Alexander (Kingston, R. I.: University of Rhode Island 1969), 1970, pp. 2-49, esp. at pp. 42-49. See, for a later development of this theme, E. D. Brown, *The Legal Regime of Hydrospace*, 1971, Chapter 3.

Table 7. *Membership of United Nations Committee on the Peaceful Uses of the Sea-Bed and the Ocean Floor beyond the Limits of National Jurisdiction.*

The Committee, which replaced an *Ad Hoc* Committee set up in 1967, was established with a membership of 42 States by A/RES/2467 A (XXIII) dated December 21, 1968 and enlarged to 86 States by A/RES/2750 C (XXV) dated December 17, 1970.

*Key**:

I *Parties to Geneva Convention on Continental Shelf (P)*
II *Land-locked States (L)*
III *Shelf-locked States (S) (Outer edge of Continental Shelf abuts on Shelf of another State)*
IV *Broad Shelf States (B) (All or most of Continental Shelf of breadth of 50 nautical miles or more)*
V *Narrow Shelf States (N) (All or most of Continental Shelf of breadth of less than 50 nautical miles)*
VI *Length of Coast in Nautical Miles*
VII *GNP per capita in $ U. S.*
VIII *Population*
italics *New Members*

	I	II	III	IV	V	VI	VII	VIII
AFRICA (25 States)								
Algeria					N	596	220	12,147,000
Cameroon					N	187	110	5,350,000
Congo (Brazzaville)					N	84	120	850,000
Congo (Kinshasa)					N	22	60	15,986,000
Ethiopia			S			546	60	23,000,000
Gabon					N	399	400	468,000
Ghana					N	285	230	7,945,000
Guinea				B		190	80	3,608,000
Ivory Coast					N	274	220	3,920,000
Kenya	P				N	247	90	9,643,000
Liberia					N	290	210	1,090,000
Libya					N	910	640	1,677,000
Madagascar	P				N	2,155	90	6,200,000
Mali		L				—	60	4,654,000
Mauritania					N	360	130	1,070,000
Mauritius	P			B		87	210	759,000
Morocco					N	895	170	13,725,000
Nigeria					N	415	80	59,700,000
Senegal	P				N	241	210	3,580,000
Sierra Leone	P				N	219	150	2,403,000
Somalia					N	1,596	50	2,580,000
Sudan			S			387	100	13,940,000
Tanzania					N	669	80	11,833,000
Tunisia				B		555	200	4,460,000
United Arab Republic					N	1,307	160	30,147,000
ASIA (16 States)								
Afghanistan		L				—	70	15,960,000
Ceylon					N	650	150	11,491,000
Cyprus					N	290	690	603,000
India				B		2,759	90	498,680,000
Indonesia				B		19,784	100	107,000,000
Iran			S			990	250	25,550,000
Iraq			S			10	270	8,380,000
Kuwait			S			115	3,410	491,000
Lebanon					N	105	480	2,460,000
Malaysia	P		S			1,853	280	9,725,000
Nepal		L				—	70	10,294,000
Pakistan				B		750	90	117,000,000
Philippines				B		6,997	160	33,477,000
Singapore			S			28	570	1,914,000
Thailand	P		S			1,299	130	31,698,000
Yemen			S			244	90	5,218,000
EASTERN EUROPE (10 States)								
Bulgaria	P				N	134	620	8,257,000
Byelorussia	P			B		—	—	—
Czechoslovakia	P	L				—	1,010	14,240,000
Hungary		L				—	800	10,179,000
Poland	P		S			241	730	31,698,000
Romania	P				N	113	650	19,143,000
Soviet Union	P			B		23,098	890	233,105,000
Ukraine	P			B		—	—	—
Yugoslavia	P		S			426	510	19,735,000
86th Member (to be appointed as of Feb. 17, 1971)								
LATIN AMERICA (16 States)								
Argentina				B		2,120	780	22,691,000
Bolivia		L				—	160	3,748,000
Brazil				B		3,692	240	83,175,000
Chile					N	2,882	510	8,780,000
Colombia	P				N	1,022	280	18,596,000
Ecuador					N	458	190	5,326,000
El Salvador					N	164	270	3,037,000
Guatemala	P				N	178	320	4,575,000
Guyana				B		232	300	662,000
Jamaica	P				N	280	460	1,839,000
Mexico	P			B		4,848	470	44,145,000
Panama					N	979	500	1,287,000
Peru					N	1,258	320	12,012,000
Trinidad & Tobago	P				N	254	630	995,000
Uruguay				B		305	570	2,749,000
Venezuela	P				N	1,081	850	8,921,000

	I	II	III	IV	V	VI	VII	VIII
WESTERN EUROPE AND OTHERS (19 States)								
Australia	P			B		15,091	1,840	11,541,000
Austria		L				—	1,150	7,290,000
Belgium			S			34	1,630	9,528,000
Canada	P			B		11,129	2,240	20,050,000
Denmark	P		S			686	1,830	4,797,000
France	P			B		1,373	1,730	49,400,000
Greece					N	1,645	660	8,614,000
Iceland				B		1,080	1,740	196,000
Italy					N	2,451	1,030	51,962,000
Japan					N	4,842	860	98,865,000
Malta	P				N	50	510	317,000
Netherlands	P		S			198	1,420	12,455,000
New Zealand	P			B		2,770	1,930	2,676,000
Norway				B		1,650	1,710	3,753,000
Spain					N	2,038	640	31,871,000
Sweden	P		S			1,359	2,270	7,808,000
Turkey					N	1,921	280	31,910,000
United Kingdom	P			B		2,790	1,620	54,744,000
United States	P			B		11,650	3,520	196,920,000

*Columns II-V are based on L. M. Alexander, "Alternative Regimes for the Continental Shelf," *Pacem in Maribus* Preparatory Conference, Rhode Island, 1970.

Column VI is based on U. S. Dept. of State, *Sovereignty of the Sea* (Geog. Bull. No. 3, revised Oct. 1969), Table II.

Columns VII and VIII are based on "World Bank Atlas of Population and Per Capita Product," in 6 *Finance and Development* (No. 1, 1969).

Third, on the territorial sea itself, it has been suggested that the maintenance of a 12-mile limit is still a feasible proposition[184] and it is the writer's hope that States will not be misled by the apparent simplicity of the Pardo plan into claiming jurisdictional powers for which there is no functional justification. If creeping jurisdiction is bad, total jurisdiction at one fell swoop is worse.

It is perhaps reasonable to hope that even the United States Defense Department is aware that the United States proposal on free transit through straits is merely a negotiating position which will not stand in the way of a reasonable compromise solution.

Fourth, on the fisheries question, whatever the theoretical merits of other proposals, a study of the facts of international life surely suggests that the only hope lies in trying to marry recognition of wide national limits for those who claim them with acceptance of internationally (in some cases regionally) prescribed obligations concerning the management of particular stocks. Such an approach is intellectually offensive and it would not lead to early solutions. In the absence at the moment of any other convincing alternative, its one and redeeming merit is perhaps that it embodies an attempt to qualify in the interest of better management the current conflict-creating trends which show every sign of continuing and developing.

Fifth and finally, any student of the law of the sea debate over the past several years cannot but be impressed by the strong desire of developing States to accept neither "charity" nor even "their rightful share of the common heritage of mankind," unless that concept includes the right to participate in the management and exploitation of that heritage. This very basic need may well have a crucial influence on government decisions on wide versus narrow limits, especially so long as the economic picture is so impressionistic as it is likely to remain well after 1973.

[184]Above, p. 13.

Consequences for Territorial Sea Claims of Failure to Agree at the Next Law of the Sea Conference

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Monday morning, June 21

The notion underlying this paper is sufficiently clear to require mere summary mention. States have, no doubt, many different objectives in mind in supporting a new Law of the Sea Conference (LOSC) in 1973 or shortly thereafter. The United States and the USSR have both made amply clear that a major objective is to put a halt to the accelerating trend toward unilaterally proclaimed, wide limits for the territorial sea. It seems probable that other States presently share this objective. It is possible that this number might grow as more and more States begin to realize what is at stake, although this effect is by no means assured. However this may be, it may be useful to assess the impact of failure to agree on a territorial sea limit at LOSC-1973 in terms of what States may do regarding the breadth of the territorial sea. The question is: what impact would this failure have upon various community and individual state interests and uses.

A few words may be needed on what the word "fail" means in this context. By this I refer to the absence of agreement by the required majority at the Conference on any specific limit for the territorial sea. Absence of agreement is a broadly descriptive phrase and it covers a number of very different situations. In a conference requiring a two-thirds vote for approval of a proposal there is a failure to agree when a proposal gets a vote of two-thirds minus one. There is

also a failure to agree when a proposal attracts 10 votes and is opposed by 90. My point is that if all proposed limits for the territorial sea fail of adoption by one or the other of these margins, it is very likely that some undesirable future claims to extend the territorial sea will occur. That this is probable seems a reasonable extrapolation from the experience of the 1958 and 1960 Conferences, not to speak of the rumors that more than a few States are only now being deterred from wider claims by the prospect of a 1973 LOSC. It may be recalled that the 1958 Conference soundly rejected the only proposal coming to a vote on the question of allowing a coastal State discretion to set any limit it wished for the territorial sea. This rejection was insufficient, as we all know, to avoid the later contention by some States that failure to agree on one specific limit in 1958 or 1960 meant that each State was thereafter free to act as it pleases. It can be anticipated that this identical attitude will be urged after the next Conference unless States can overcome the difficulties of endorsing a specific limit.

Indeed it seems highly probable that this position will gain substantial adherents if it is not somehow destroyed at the next Conference. If adherents are gained, or merely if no limit is fixed, it is not at all unlikely that more States will extend their territorial sea at least to 200 miles and some could easily go beyond. The purpose of this paper is to assess the effects of a general movement in this direction upon a variety of ocean uses and objectives of States. Only brief comment will be included on the *political* consequences of this development. It hardly needs emphasis that these political effects could be very serious inasmuch as major weapons systems could be affected by extensive claims to the territorial sea.

IMPACT ON MINIMUM PUBLIC ORDER

No doubt all of the people at this meeting prefer that the world were not in the condition it is, with some States wholly capable of obliterating each other and in the process of mutual assault also destroying the innocent onlookers. At the same time many are persuaded that the chief protection against global suicide triggered by one or the other opponent's initiation of nuclear violence against the other is that *both* sides possess this capability. More important than mere possession of the capability is the further capacity to protect it against destruction by the initial attack of the opponent. A highly significant component of this protective capacity is in the ocean and in the submarine vessels which cannot be reliably detected and tracked during their stay under water.

One of the possible consequences of enlarging the territorial sea on a unilateral basis after a failure of the LOSC is to destroy or substantially to lessen the protection of the deterrent system represented by the nuclear missile firing submarine. Enlarging the territorial sea would not by itself have this effect. States doing so would also have to insist on proscribing the passage of submarines while in the submerged mode. If the flag State of the submarine complied with this proscription the effect would be to provide a means for locating submarines as they moved from one area of dwindling high seas to another. I do not know what impact this location effect would have on the ability to track the vessel after it submerged again, if it *could* lawfully submerge—presumably this alone would not increase subsequent tracking ability itself though perhaps it might simplify the task. In any event it may well be that coastal States should ponder whether or not their own interests are served by taking action which might reduce their own protection against destruction.

It is also possible, of course, that general and wide extensions of the territorial sea have little or no significance for the operations of submarines. As the range of missiles lengthens, the need for submarine mobility may diminish, so that the significance of narrow passages also diminishes. Of similar effect, technological change permitting far deeper operations may be expected to offer the effective concealment considered essential for protection of the deterrent force. Still another possibility would be the development of a detection capability that destroyed completely any concealment in the ocean at whatever depth and location. In short the mechanism of technological development may, possibly, within a relatively few years render this whole problem largely irrelevant.

I think there is reason to be uneasy about these prognoses that predict dire results if the territorial sea is wider than x miles. In 1958 and 1960 a territorial sea of 12 miles was viewed by the U. S. as so horrible that no agreement on the limit was preferable to accepting a 12-mile limit. Shortly later, only ten years or even less, the U.S. could propose acceptance of a 12 mile territorial sea, at least so long as certain transit rights are assured. The latter proviso is, incidentally, the opening offer—it is not inconceivable that the U.S. would accept innocent passage as sufficient. However this may be, it is perhaps understandable that there is some question about the perspicacity of the institution responsible for the mistakes of 1958 and 1960 which opened the way for the predicament we are in now.

Still another contingency is worthy of comment. This is the possibility that the U.S., the U.S.S.R. and possibly other powerful states will not recognize unilaterally expanded limits and not only refuse to abide by such limits but use their considerably superior strength to oppose enforcement efforts by coastal States. Perhaps it is this contingency which underlies statements from some government leaders that multilateral agreement must be reached to "modernize" the law of the sea or "unilateral action and international conflict are inevitable." Another formulation of the task of the next Conference that underlines the nature of the alternatives is: "It (the community of nations) must decide whether the clear rule of law rather than the force of arms will govern international relations on the seas."

These references to "conflict" and "force of arms" should not be overemphasized. Whether or not major States would employ force of arms depends on many factors, including of course the importance they attach to the maintenance and exercise of unrestricted movement of vessels and aircraft. In this calculation technological change is bound to have importance one way or another. At the very least, however, this possibility deserves to be weighed in deciding on policy.

The point of this speculation is merely to identify this as one of the ways public order could be disturbed by an inability to agree on generally acceptable principles governing military use of the ocean. There are certainly others, as will be mentioned.

IMPACT ON FISHERIES

If LOSC produces neither agreement on a territorial sea nor on an exclusive fishing zone, nor on an arrangement extending some form of coastal control over fisheries, it seems probable that coastal States will act unilaterally, adopting a number of different approaches, to affect fishing on "coastal stocks." A 200-mile territorial sea would of course have the most unequivocal and comprehensive impact of the various limits currently claimed.

Clearly a generally adopted 200-mile territorial sea or exclusive fishing limit would, without doubt, severely restrict distant water fishing. If, as we are assured, the distant water (d/w) States take very large quantities of fish in waters near coastal States, there would very probably be a severe reduction in world fish production when and if a 200-mile zone is actually enforced. Unless coastal States take further action, therefore, an immediate and certain effect of the 200-mile zone will be to waste protein that would otherwise be taken from the sea. To the extent alternative sources of protein do not replace this at about the same cost, this result is to be deplored.

Action by coastal States, in addition to creation of a 200-mile zone, could take a number of forms. One would be to announce that foreign fishing could continue without any ado. This seems unlikely. Another alternative would be to exclude foreign fishing but to increase coastal fishing effort in affected areas and harvest all or some of the catch that would otherwise have been taken by foreign vessels. This latter approach might be combined with permitting some foreign access to the areas formerly free to such fishing. Presumably the coastal State would levy a fee of some kind for access to its zone and would impose such restrictions as it thought necessary to protect stocks. The coastal State might, of course, permit foreign fishing to continue exactly as before but subject to user fees and to coastal conservation regulations.

The more likely of these alternatives would be an attempt to gain revenue from fisheries in the 200-mile zone by charging for foreign fishing exploitation. The precise consequences of this might well vary from one coastal State to another. User or license fees may be set so high for particular fisheries that distant water States will seek fish elsewhere. The end result of this could be either a decrease in production or a rise in costs of harvesting or both. The free availability of alternative attractive areas would of course diminish as more States expand their territorial sea or exclusive fishing zone.

It is not clear that the 200-mile zone would necessarily impose higher costs to the extent foreign fishing States comply with reasonable license or fee requirements. If such costs should occur, it does not follow, of course, that higher costs are contrary to community interest. If coastal States employ this added revenue to defray the costs of research into affected stocks to develop a basis for management and actually do manage the stocks wisely, the additional cost to the fishing State would be warranted.

One consequence of a new exclusive fishing zone which is partially open to d/w States, the extent depending on coastal use of particular stocks, is to set the stage for what will be generally a new context for negotiations with coastal States. At present there are bilateral negotiations which pose some more or less minor questions of access by d/w states to fishing zones. But usually, thus far, the exclusive zone is so small that the access issue is not greatly significant. This situation would surely change when a new 200-mile zone is established. In this circumstance extensive coastal fisheries would be subject solely to coastal State control and foreign access would be a substantial matter to negotiate about. Depending on the size of the coastal fleet, it may well be that very large stocks are unexploited or under-exploited by coastal fishing within the 200-mile zone. Granting foreign access to these stocks may be a valuable tradeoff in negotions over other items wholly unrelated to the ocean or at least to fishing.

For any particular State the questions raised above must be examined in specific contexts before the balance of interests can be established with any degree of confidence. It is not enough to imagine general situations; coastal or distant-water State officials have to take into account the concrete situations in which they now find or will find themselves. Thus a coastal State may have fishermen working specific species at specific locations at specific periods of the year. The distant water fleet may fish the same general region for species not taken by the coastal State and may conduct this fishing at the same or different time as coastal fishing occurs. Obviously it takes little imagination to conjure up the multiple variations of this situation that might in fact occur. The States concerned, however, must look at the concrete situation as it actually occurs if they are to make a realistic assessment of their interests. It hardly needs emphasis that a look only at the past patterns of interaction in the area would be inadequate for the analysis of interests required. Projection of trends into the future is a necessity if there is to be any hope of understanding the effects of present decisions. The only productive approach to LOSC-1973 is to ask what can be expected in terms

of ocean fishing in 1980. It merely complicates this question to realize that this expectation depends in major part on what happens at LOSC-1973.

One point suggested by imagining how State interests in fisheries are affected by a 200-mile (or any other figure) limit is that very many States are in no position to make such a determination even on the basis of previous experience and knowledge, let alone projections of plausible futures. The reason for this is that, at least at present, numerous coastal States do not have adequate information on location, magnitude, seasonal availability, or current exploitation of stocks in adjacent waters. Almost none of these States have economic or other social-purpose data available for determining the alternative consequences of varous limits and of various alternative regulations applicable within these limits. Some help will come from the forthcoming FAO compendium of information on horizontal and vertical distribution of potential and realized fishery resources. But as helpful as this data will be, it will have to be assessed in the context of other information about past and likely future use of these resources. In many respects, therefore, decisions affecting fisheries resources will be made without knowledge of their consequences. That this state of ignorance on the part of numerous coastal States can have desirable political or other consequences is a figment of someone's imagination.

The discussion of the impact of a 200-mile zone has thus far centered wholly upon the so-called allocation effect, i.e., who gets what under what conditions. But there is the other dimension, namely what effect the 200-mile zone will have on rates of use no matter who makes such use. This is what may be called the conservation problem.

Insofar as lawful behavior is concerned no marine fisheries are now being regulated in 200-mile zones around the world except pursuant to international agreement. A number of such agreements now exist and they usually provide for special intergovernmental institutions to take cognizance of these resources. One effect of a 200-mile limit would be either to displace these bodies completely in numerous instances or to change the nature of their functioning. In the former case one or a few coastal States would dispose of authority to provide for conservation and this raises the question of congruence between management needs and coastal capabilities for meeting such needs. There is reason to doubt that many coastal States dispose of the resources or skills to undertake this management task. Accordingly it may still be necessary to create a new international institution or perhaps revise an old one to provide for these management functions.

Thus far the impact of non-agreement has been expressed in terms of access to fisheries (i.e., allocation or distribution), costs of fishery production, and conservation (authority to prescribe rates of use and to enforce them). Another way of looking at the situation is to ask what the differential effect may be in terms of relevant categories of States. Here, perhaps more than usual, the effort is to raise speculative questions that might be worth examination.

Since the discussion concerns fishing it is natural to question what the impact of a 200-mile zone would have on the major fishing States of the world. Probably the answer is not by itself overly illuminating since the impact will vary among this group. We are certain, for example, that Japan and the USSR would strongly oppose a 200-mile territorial sea and that Peru would just as strongly support it. The position of the U. S. is vastly more complicated so far as fisheries are concerned since its fish catching interests are both coastal and noncoastal and, to add to the complication, a most valuable coastal fishery cannot be protected by even a 200-mile fishing zone. Be all this as it may, however, the U. S. will very likely come down in support of stronger coastal rights, whatever the actual formula advanced to effect this result.

Still another way of perceiving State preferences is to ask what interests are affected by a 200-mile zone, looking at interests here in terms of capital invested in fishing or of investments by nationals of one State in the fisheries conducted by persons affiliated with a coastal State. This is a rather complex matter, especially since little is known of the pattern of capital investment in fisheries on a world-wide basis.

An illustration may highlight the difficulty. The U. S. fishing industry is often considered as weak, so enfeebled that budgetary officials yearn to reduce federal expenditures in support of the industry and have recently had success in satisfying this yearning. But the picture is of course not so simple. The U. S. fishing industry *as a whole* is in very good health. Some segments of one part of the industry, particularly the harvesting side operating out of U. S. ports, are in relatively poor condition, but the operations of U. S. industry outside the U. S. are a completely different story. One recent study by the Institute for Politics and Planning estimated that U. S. firms controlled at least 40% of the worldwide fish market in basic fish commodities, embracing fish meal, tuna, shrimp and frozen blocks. However this same study also stressed lack of information on capital investment in fisheries on a world-wide basis and this ignorance is especially notable in the U. S. concerning U. S. Industry.[1]

It may very well be that those active in international trade in fish products could not care less what a LOSC does regarding fisheries. If the effect, however caused, is to raise the price of fish protein, this may be mostly irrelevant because all participants suffer the higher costs and demand is inelastic at the new cost level. If costs got sufficiently high to put fishery products at a disadvantage in relation to competing sources then of course the story might be different. On the basis of present data, it seems very difficult to reach firm conclusions on the attitude of the international trade segment of the world fishing industry.

[1]Institute for Politics and Planning. *Multi-National Investments in Ocean Activities* (Washington, D. C.: Federal Clearing House No. PB 182437. 1969).

IMPACT ON NAVIGATION AND FLIGHT

Extension of the territorial sea to former areas of high seas would have effects, potential but highly probable in certain respects, upon normal commercial movement of ships and aircraft and upon military vehicles (surface, sub-surface and over-surface). In high seas areas all forms of this use are now mostly unrestricted, subject to some qualifications in contiguous zones affecting surface and air transport. Vessels of all kinds and purposes are now able to move freely and without foreign control of any kind.

The nature of this effect would depend upon the kind of authority coastal States are authorized to exercise concerning the territorial sea, upon the actual exercise of this authority, or upon the kind of controls States succeeded in imposing, whatever their authority to do so, in accordance with international law.

Authority Which Is Now Permitted Within Territorial Sea

This subject is mostly familiar to everyone; hence only brief summary is useful or necessary. Transit by ships is now conducted as a right of innocent passage but this right may be suspended temporarily under certain circumstances in specified areas of regular territorial sea. However in those parts of the territorial sea forming straits there can be no lawful suspension of innocent passage.

Two key questions about the concept of innocent passage are what it means and what ships are entitled to the right. On the former point the Convention definition obviously employs terms of high abstraction in declaring that "passage is innocent so long as it is not prejudicial to the peace, good order or security of the coastal State." Although these concepts have generated surprisingly little controversy in terms of disputed applications to vessels in transit, their level of generality surely explains the distinct uneasiness evidenced by State officials when they contemplate what might happen if a very wide territorial sea were generally established. This uneasiness is accentuated by the consideration that in order to obstruct passage through a strait the coastal State must (to be lawful) justify its actions by characterizing passage as offensive and therefore non-innocent. The actual form of coastal action might differ but functionally the preceding statement is believed to be accurate. For instance, the question of right of access for passage might arise because the coastal State prescribes certain regulations with which passing vessels must comply. The effect may be to halt, or seriously hinder, use of the region concerned. It is immaterial in any functional sense whether the ensuing controversy is considered to involve innocent passage.

The question of what vessels can invoke a right of innocent passage is far less clear, if clear is appropriate at all in this discussion, than the concept itself. There was very strong disagreement in Geneva in 1958 over whether warships could invoke the right of innocent passage. The Convention in its ultimate form appears to confer this right on all ships without distinction as to purpose or function, but there is good reason to be tentative on this. In any event, as noted below this uncertainty will probably be considerably dispelled ere long.

It is universally understood that aircraft are not entitled to a right of innocent passage over the territorial sea. All such transit is handled by agreement and there are many agreements consenting to such overflight but these mostly apply only to civil aircraft rather than to military.

Submarines, as a class of vehicles, are entitled to exercise a right of innocent passage but must operate on the surface and display their flag. The uncertainties referred to above extend to military submarines though so far as known no controversy has arisen over this point.

These comments about present authority cannot be simply extrapolated into the future without regard to discernible trends in attitudes of States and obviously it is the future authority of coastal States that is important for the impact of a widened territorial sea. My estimates of the future, based on present evidence, are as follows.

Aircraft will continue to operate under the present disability, even if the territorial sea is widened. Accordingly military and other aircraft will continue to require consent for overflights of the territorial sea.

Rights of innocent passage will certainly not be extended to military ships and it is probable, but not entirely certain, that the forthcoming conference will by two-thirds agreement expressly exclude such ships from this right or from rights of transit or from any equivalent concepts. Even if a provision to this effect cannot overcome a blocking third created by the combined efforts of the U.S., USSR, and Europe (West and East), it will be very plain that the rest of the world does not regard military traffic by ships as entitled to the same rights as other ships. At the very least it would be extremely difficult, after a display of such an attitude, to establish that such rights are protected under international law, without raising serious questions about the whole structure of such law.

If States actually exercise their future authority as I have suggested that authority may or will develop, the effects on navigation and flight could be profound. It is already plain that the U.S., and, probably, the USSR, are concerned greatly over the effects of a 12-mile territorial sea on vehicular movement. The U.S. has widely circulated proposals to accept a 12-mile territorial sea if certain transit rights are also accepted. Such concern is not likely to be lessened by contemplating a 200-mile territorial sea rather than 12. Whether the U.S. would accept a 200-mile territorial sea in exchange for transit rights is not so clear but is very doubtful. Certainly the 200-mile belt would pose the straits question in even more instances than a 12-mile and it is probable that the question would

be regarded as even more critical with the wider limit. In some parts of the ocean a 200-mile belt would incorporate vast sea areas within national territory and the overlapping effects would pose serious potential barriers to transit between highly strategic terminal areas. Japan's access to other parts of Asia and to Africa and Europe might become extremely awkward.

In addition, a 200-mile territorial sea could present problems for navigation in large areas neither resembling straits nor in close proximity to other areas of territorial sea, as for example the coasts of Africa, South America, North America, and the Asian subcontinent. In order to avoid the territorial seas in such regions ships might have to be diverted a considerable distance from land masses to less than optimum routes costing more (perhaps much) in time and money. For military vessels this could occasionally be serious but perhaps the deprivation to non-military transport would be the greater in terms of added costs.

The sum of the difficulties for non-military transport from a 200-mile territorial sea could be considerably more than trivial. These potentialities suggest the desirability of further study, particularly by or for States for whom ocean transport is of very large importance for very significant foreign trade. It might turn out, for example, that some States, including developing countries, might suffer a marked competitive disadvantage in world markets because of disproportionate increases in transit time and costs.

One other possibility might be mentioned, however, which is pertinent in this context. If States agree to exclude military vessels from passage or transit rights, this might create or foster an inclination to provide for very liberal rights of access and passage for non-military vessels. Anticipation of this possibility might be the greater if some developing States become seriously concerned over the possible disadvantage for trade of a 200-mile territorial sea.

These speculations are based on the situation as it now appears: after the Law of the Sea Conference in 1973 things may appear far different regarding coastal rights over a 200-mile territorial sea. Thus, given the extremely high priority attached to military interests in the sea in the U.S., the obvious question is: what will be the U.S. tradeoff to secure a provision on right of transit. It is only gross speculation to consider that a 200-mile territorial sea might be acceptable to the U.S. if the tradeoffs can be satisfactorily arranged. Such tradeoffs might arrange it that even a 200-mile territorial sea has little impact on transit and overflight. The question then is: does U.S. concern over a 200-mile territorial extend to matters other than transit rights.

IMPACT ON SCIENTIFIC RESEARCH

The effects of a 200-mile territorial sea on research and exploration are several and various. First, and most drastic for scientists, is that some States may very well decide not to permit any non-indigenous scientific research of any kind. This could well mean that large regions of the ocean, some perhaps of relatively unique scientific interest such as the area off the Amazon adjacent to Brazil, are no longer accessible on any basis. If indigenous scientists do no consequential research, or do not make their research available, there could be some considerable areas of ignorance created or preserved. This might have an especially debilitating effect on some areas of science such as, perhaps, one may speculate, on theories and effects of ocean floor spreading. A 200-mile territorial sea might include some very important regions to investigate for this particular purpose, as if the new territorial sea extends to or beyond continental margins of great importance to these theories and effects.

Another type of research that would suffer especially is that pertaining to fisheries. There would no longer be any such research permitted by some States, and because fish are prized it is not infrequent that there is a special aversion to foreign research ships in waters subject to coastal fisheries jurisdiction.

A second effect is that a group of States might not impose outright prohibitions on research but through ignorance or design impose preconditions that have the effect of prohibiting some or all categories of such research.

A third outcome is that coastal permission is granted but only on terms that significantly affect the willingness of foreign researchers to become involved. It is not that the conditions are so onerous as to be prohibitive in execution, but that researchers are inclined to seek out other areas for work when there is a choice. Whatever the cause even these restrictions lower the level of research effort.

A fourth effect of a 200-mile territorial sea could be to reduce materially the incidental observations that might be made by ships in transit using scientific instruments while under way. Indeed it would seem likely that incidental observations of this kind would become much more frequent since there would be far more ships in transit through a territorial sea of 200 than of 12 miles. At the same time coastal States might, cognizant of this possibility, attempt at least formal proscriptions of underway observations.

A fifth effect of a 200-mile territorial sea might be to restrict severely the deployment of ODAS (Ocean Data Acquisition System). It seems probable that any ODAS Treaty will require positive coastal permission for location of these objects in the territorial sea. Some States might well refuse. And even if no refusals were forthcoming the very need for consent will put a dampening effect on use of ODAS. It seems probable, and worth noting, that far more ODAS would be embraced by a 200-mile territorial sea than by a normal one of 12 miles or less.

It does not necessarily follow from mere establishment of a 200-mile territorial sea that science will be restricted and that acquisition of scientific knowledge and understanding will be diminished. But it would be

surprising if this diminution did not occur in light of our current understanding of the attitude of some States towards research.

The question is: will the reduction in marine science in those areas be offset by some gains from restraints placed on marine science. My answer to this is "no"—the losses will virtually stand alone and uncompensated by any balancing advantages. The key is whether the coastal State will derive any advantages by acquiring control over *all research* in the 200-mile zone. At the present moment I can see no such clear advantages. Science as an activity will not be increased and the flow of information seems certain to suffer. The effect of obstruction to foreign scientists will have no benefit for the coastal State, except perhaps to satisfy some officials' feeling of xenophobia.

One possibility of gain does exist but it is somewhat far-fetched. This gain would be realizeable if control over an expanded territorial sea were exercised in such a way as to induce the States with a strong marine science ban to increase their assistance to local officials. The only real difficulty with this is that the advanced States *already* realize the need for their assistance and hopefully are preparing to increase it. Their willingness to be more effective in this regard might be harmed rather than helped by the exertion of crude pressure.

IMPACT ON EXPLORATION AND EXPLOITATION FOR EXTRACTIVE RESOURCES

It seems probable that in many instances a 200-mile territorial sea would completely displace any need for a continental shelf where the shelf is defined as ending at 200 meters. Naturally this question of the effect of a 200-mile belt on the shelf would require specific examination for every coastal State and no doubt figures have been compiled on the matter. Speaking here in terms of entire ocean basins and of averages, the following seems to be the general picture.

In terms of average, a 200-mile width for the territorial sea far exceeds the average width for the shelf in nautical miles everywhere in the world except one place and that is the Yellow and East China Seas where the average shelf width is almost 400 miles.

A different picture appears, however, if one examines the *range* in width of shelf areas. In both North and South Atlantic the shelf in places extends well beyond 200 miles. In the North Atlantic, excluding subsidiary seas, the shelf extends as far as 240 nautical miles, while in the South it goes out even farther to 415 miles. In some of the subsidiary seas, the 200-mile belt would apparently embrace the entire geological shelf, as in the Gulf of Mexico and Caribbean Sea.

In the Pacific Ocean proper, excluding subsidiary seas, the 200-mile belt makes a shelf regime virtually irrelevant. In the North Pacific the shelf extends outward only 160 miles and in the South but 150. But for the other highly important areas, considered subparts of the Pacific, the 200-mile belt falls far short of the shelf edge. In the Bering Sea the shelf edge extends out to 415 miles, in the Sea of Okhotsk to 540, and in the Yellow and East China Seas to the distance of 695 miles. In the highly strategic South China Sea the shelf ranges up to 600 miles. Thus in some regions of very great significance a 200-mile territorial sea does not come close to embracing the whole of the geological shelf.

However to understand the full impact of a 200-mile territorial sea requires looking at two related characteristics, not at one or the other. When the width of the shelf at its widest point is combined with the depth of the shelf at its deepest point it appears that only very limited regions would be outside a 200-mile territorial sea *and* outside the present treaty definition of 200 meters. Table 1 provides this data.

Table 1. *Variations in shelf areas.*
(a) More than 200 miles in width but less than 200 meters in depth.
(b) 200 miles or less in width.
(c) More than 200 miles in width and more than 200 meters in depth.

	Range in width (nautical miles)	Average	Range in depth (meters)
(a)			
North Sea	3–370	176	40–100
South Atlantic	3–415	79	100
Bering Sea	2–465	123	100
South China Sea	7–600	196	100
(b)			
Red Sea	2–90	27	100
Gulf of Mexico	2–159	57	40–100
Caribbean Sea	1–125	23	40–100
Mediterranean Sea	1–195	19	100–200
Indian Ocean	2–200	49	100–300
Sea of Japan	(3–210)	33	100–300
North and South Pacific (less subsidiary seas)	0–165	25	100–200
(c)			
Greenland and Norwegian Sea	7–220	(56)	100–500
North Atlantic	1–240	54	10–500
Sea of Okhotsk	1–540	143	100–300
Yellow and East China	120–695	396	100–500
Arctic Ocean	5-840	256	50–100

It is evident from the chart that the only areas not completely embraced by one or the other criteria are the Arctic Ocean, the Greenland and Norwegian Seas, the North Atlantic (less subsidiary seas), the Sea of Okhotsk, and the Yellow and East China Seas. And of course, very substantial parts of these regions would fall within either 200 miles or 200 meters.

The conclusion suggested by these figures is that the advent of a 200-mile territorial sea when coupled with the present Shelf Treaty (and customary international law for non-adherents to the latter), substantially eliminates any need for a more specific definition of the legal continental shelf. Most regions around the world would clearly be subject to the control of the adjacent coastal State or States, thus providing the

clarity and specificity of legal arrangement that are deemed so essential for promotion of development of extractive resources in offshore submarine regions.

Of course this arrangement has some rather drastic effects including that of raising the question of whether clarity and specificity in legal arrangements for promoting development are really what is desired or needed.

An initial point is that the 200-mile territorial sea would remove much of the significance to be attributed to the U.S. draft seabed treaty and perhaps that of any draft on this subject. For the reasonably foreseeable future, at least a decade, the significant action at sea will be within 200 miles, not beyond. When development activity does begin beyond 200 miles it is not likely to be more than modest for well over a decade. If these expectations are reasonably accurate, it probably means that it is not particularly worthwhile to expend much effort presently at drafting a treaty.

However it is the main point here that the 200-mile territorial sea will result from disagreement at the LOSC, including inability to agree on the limits of national jurisdiction over the seabed. However it is worth noting that if a 200-mile territorial sea were to result from such non-agreement, it could well reduce, and perhaps largely eliminate, the pressure for subsequent development of a seabed regime. Practically all resources of any imminent importance would be included within the 200-mile limit and it probably would not overly appeal to most States to expend any significant energy to negotiate a treaty concerning an area so little utilized as the seabed beyond 200 miles from the coast.

OTHER CONSEQUENCES OF UNILATERAL EXTENSION OF THE TERRITORIAL SEA

There are other ways to analyze, or to speculate about, the consequences that flow from a failure to agree on a limit for the territorial sea. The preceding exercise is probably a very obvious, even banal, indication of what might happen. A somewhat more venturesome exercise might dwell on what happens to the production and distribution of things important to or prized by organized groups and individuals. The following is a hurried pass at such a venture.

One of the things that is most highly valued in the contemporary world is influence, i.e., the capacity to affect choices. The question is how a failure to agree on the state boundary in the ocean may affect the distribution of this value.

Initially it might seem that some, perhaps many, States will probably *gain* in this value because they will take the position that in the absence of general agreement on the limit of a State's ocean boundary each State is entitled to set that limit where it pleases and as it sees its needs. This is the position, as I understand it, that the Latin American States are adopting. In this view no other State has any basis or even legal competence to complain about what another State does.

Accordingly each coastal State can gain in control over events occurring in the ocean simply by extending its boundaries to include the locale of these events within the State. Any further occurrences in this region must thereafter comply with coastal law and under such conditions as this State may wish. To use an example, the States of Latin America and Africa could extend their boundaries so that they meet in the middle of the Atlantic Ocean. A similar exercise could be undertaken by States elsewhere, each extending its boundary until it ran up against somebody else's extension. In such circumstances each State is, of course, entitled to decide that the other must give way because, by definition, neither is entitled to question what the other does. (This is reminiscent of the law once adopted by an American state regulating automobile traffic. When two cars arrive at an intersection simultaneously neither is permitted to proceed until the other has.)

As it turns out the result of adopting the Latin American position, and applying it as just suggested, is not to distribute influence equally among States but to permit fewer than 20 percent of the States to control about 70 percent of the earth's surface. Decisions as to the use of this region could be made by a very small minority of States and the rest of the world would be in many important ways completely subservient to this small minority of States. For example under this imagined future situation world ocean transportation could occur largely at the will of a mere handful of coastal States. Since bulk commodities of a critically important nature, especially oil, are moved mostly over the ocean, it is clear that the States who control the conditions of this movement would dispose of enormous influence in the world.

It is perhaps only slightly less of a fantasy than the preceding speculation to project the possibility that the above situation might lead to the use of violence to oppose the control of the few coastal States. It would not be at all surprising that the result of such violence would be control of the ocean by even fewer than the original 20-odd coastal States; it then might well occur to the people of the world that the most sensible way of managing the ocean is to provide for a system of shared power, the sharing to extend to all States of the world through an organized institution.

Another consequence worth speculation is that the territorial sea claims of the future may, in fact, tend toward a uniformity clustering about 200 miles. In terms of influence the effect of this would very likely be to increase the share of this among most coastal States at the expense of the more advanced nations in the use of the sea. Previous discussion called attention to the new authority coastal States would have and might exercise under this projection. In theory at least, coastal States would dispose of significant power over ocean transport, but some of these States would gain (and lose) far more than others. Perhaps the greatest increment of new coastal authority would pertain to extraction of resources, living and non-living.

For the first time in world history, large stores of living marine resources would come under a unified management authority. This is a transformation in power that could have tremendous impact and could conceivably lead to great changes in production and distribution of other values.

In terms of non-living resources one probable consequence of the 200-mile territorial sea would be to increase coastal power and to minimize the possibility of creating new international institutions with consequential authority. If such institutions are not created, the effect would be to diminish the influence of non-coastal States and shelf-locked States since they would no longer have any role in exercising control over resource extraction.

The point to be underlined is, of course, that the 200-mile territorial sea might have different consequences in power terms for different States. Generally speaking the impact would be to take power from those who have the most and add to the power of those who have the least. It is partially this implication of unilateralism that is responsible for the convening of a law of the sea conference as well as for the strategies being pursued by the major maritime States. A danger arises because of the possibility that the latter States believe their overall power position will suffer noticeable and unbearable erosion. The greatest danger, however, is presented by the possibility that this erosion would be experienced by one major power to a far greater degree than by any other. In this circumstance it is not unlikely that outbreaks of violence could occur.

If unilateral extensions of the territorial sea increase the *power* of coastal States, some far more than others, it is probable that other desirable things will be adversely affected in terms of total production. The store of knowledge about this planet may well be the item that suffers most from increasing the ocean region under State control. That this development would be extremely undesirable I tend to take for granted. Other persons do not. I do not believe it is to anyone's advantage to hinder or to obstruct those processes of inquiry that lead to better understanding of the environment and to better knowledge of the resource potential of the ocean. On the basis of the attitudes currently being evidenced by important coastal States, especially in Latin America, there is every reason to believe that such hindrance and obstruction will occur. This hindrance and obstruction will probably reduce, perhaps drastically, the rate of accumulation of knowledge about the planet. This in turn would prolong the day that mankind could realize concrete benefits from such important operations as prediction of earthquakes, control over alteration in weather and climate, the dissipation of severe weather disturbances, increased food production, and less costly, more plentiful supplies of scarce minerals.

If inability to agree on a territorial sea limit is accompanied at the next Conference by a similar inability to agree on a regime for the seabed, it seems probable that the *wealth* position of some States will be adversely affected. Assuming general establishment of a 200-mile territorial sea, it is likely that most important extractive non-living resources will be within the control of coastal States. Non-coastal States and coastal States without significant resources within the 200 mile limit would have no opportunity of sharing in the wealth found within the 200-mile zone. For some States the absence of a seabed regime might even result in actual loss for them. If deep sea mineral exploitation does produce appreciable quantities of manganese, nickel, cobalt, and copper, this might well have a substantial adverse impact on States now producing from land sources.

Coastal control over fisheries in the 200-mile zone can also be expected to produce wealth effects. As noted earlier if coastal States do not permit any foreign access to fisheries in the 200-mile zone, there will be marked reduction in production of fish. The loss imposed will be incurred by both developing and developed States, but probably the latter will suffer the largest total loss.

If coastal States sell licenses or impose user fees, thus allowing foreign fishing, the effect could be to increase the wealth of the coastal States and might even benefit foreign fishermen. The latter might occur if the added cost forces out marginal fishermen and thus permits more profitable operations by those remaining. On the other hand, imposition of unduly high licenses or fees might result in unnecessarily deterring foreign fishery exploitation, leading to unwise reductions in protein production.

Still another possibility for reducing wealth production might arise from restrictions on commercial transport deriving from extensions of coastal control over shipping. Although this possibility is extremely remote, it is worth noting that developing and developed States would both suffer from coastal interference with commercial ocean transportation.

United States Options in the Event of Nonagreement

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If the topic of this paper had not been assigned, it would have been presumptuous to have attempted to assay it. The range of options available to the United States in the event of non-agreement at the forthcoming Conference on the Law of the Sea, are wide indeed. The constraints which limit these options are, in large measure, unknown and unpredictable. They will depend on the results of as yet unknown specific international conflict scenarios; the legal philosophy of our then chief executive and his legal advisors; the development of international laws, treaties and relationships outside the scope of the 1973 Conference; the nature, cause and intensity of non-agreement at the 1973 conference, and a host of other factors. Only the broadest of directions appear predictable and only the broadest of United States policy options can be described. Fortunately, there is some past example and precedent from which some lessons and principles may be derived. This is so because we have been living with two major areas of non-agreement since 1958. These two unresolved areas are quite obviously the width of the territorial sea and the precise outer limits of the continental shelf. An obvious option, in the event of major disagreement of this type, is to press for an international conference and this is precisely the reason for such international pressure.

We may therefore examine some of the events which have precipitated the non-agreement, events in which the United States has been involved, and which have occurred since non-agreement, and the actions of the United States with respect to these events. From these we may draw some inference as to the nature and type of controversy which may arise and the effectiveness of United States actions in coping with these controversies. These, in turn, lead to a set of recommended principles and policies to be followed in the interregnum between the hypothetically aborted 1973 Conference and the one that follows.

Padelford has documented the earliest history of the developing disagreements in the law of the sea. Certainly the development of the law of the sea was in a state of arrest or suspension during the years of World War II. The Truman proclamations of 1945, with respect to fisheries and to the resources of the continental shelf, therefore constituted one of the initial unilateral declarations of limited jurisdiction in areas previously deemed to be international waters. The expressed intent of these declarations was for "the protection and preservation of fisheries" and for "conserving and prudently using natural resources." In 1947, and citing the Truman declaration as precedent, the President of Chile claimed absolute sovereignty over the adjacent continental shelf and limited sovereignty over the seas adjacent to the coasts for a width of at least two hundred marine miles. Sovereignty was limited to "the full extent necessary to reserve, protect, conserve and utilize the natural resources and wealth of said seas." The United States responded with a letter of protest, reserving its rights and interests in the disputed waters and differentiating its actions from Chile's by the more limited sovereignty of the U. S. Continental Shelf proclamation, as well as the failure of Chile to recognize United States fishing rights. The United States similarly protested assertions by Argentina and Peru. Nevertheless, the list of nations claiming the 200 mile territorial limit is growing, has spread from South America to Africa, and most recently includes Brazil. The United States has promptly made reservation to each of these assertions but with one notable exception has made no overt attempt to test the claim. In 1958 and after the Conference, the non-recognized Peoples Republic of China declared that the breadth of its territorial sea extended to twelve miles. Not only was this claim rejected by a spokesman for the State Department, but within three days after the declaration, units of the Seventh fleet were deployed within this limit and in broad daylight.[1]

At the 1958 conference following the assertions by Chile, Ecuador and Peru and prior to the latest series of assertions, attempt was made to reach agreement at Geneva. The United States position at that time was one of willingness to concede a six-mile limit as a basis for treaty agreement with a retreat to the three-mile limit when agreement could not be reached. Except in the case of the declaration by the Peoples Republic of China, the United States has since 1958 maintained a *de facto* posture of honoring the 12-mile limit, although claiming that no more than three was authorized by customary international law. Even when involved with nations in which a state of quasi-belligerency existed as with Korea and North Viet-Nam, there has been a *de facto* honoring of the twelve-mile limit. In the Pueblo and Tonkin Gulf incidents, the United States was careful to point out that the *Maddox* in the one instance and the *Publo* in the other were beyond the twelve-mile limit and in waters for which there was no dispute as to their international character. In 1970 the State Department made this policy explicit by issuing a statement of support for a generally agreed upon twelve-mile limit; while asserting that it is not obliged to accept a limit of more than three miles until a treaty has been effectuated.

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. This increas-

[1]See Tao Cheng, "Communist China and the Law of the Sea,"*American Journal of International Law*, Vol. 63 (January, 1969) pp. 47-74.

ingly aggravated situation is continuously under test by the United States flag tuna fleet. Since the declarations of sovereignty, there has been a nearly continuous pattern of seizure of these boats with release after the imposition of fines and licensing under duress. In a number of instances, the fishing boats have been fired upon. The United States Government has provided no military protection for these boats and at the same time encourages the fishing fleet to ignore the 200-mile claim. This encouragement is in the form of reimbursement for fines and licenses imposed under duress. No recompense for licenses obtained in advance is made, and the fishing fleet is encouraged to refrain from acknowledging jurisdiction by obtaining licenses. Except for suspension of military sales, action by the State Department with respect to the offending nation has been solely that of protest.

In 1969, following an attack on a U. S. fishing boat by the Peruvian Government, the State Department declared "the Government of the United States knows of no justification in international law for the attack made on these unarmed fishing vessels. The location of the incident was at least 50 miles from the coast of Peru. While there is a difference between the views of the United States and Peru concerning the jurisdictional status of the waters in question [it is]—clear that armed attacks against United States flag fishing vessels are wholly unjustified and make resolving the difference of opinion on the juridical question most difficult." The United States merely requested release of the ship and that action be taken to prevent recurrence. It was further stated that the incident "indicates the urgent need of sitting down together and attempting to find a solution to this long standing problem. It is quite obvious to the United States that some way must be found which protects the position of both countries and at the same time eliminates the possibility of serious incidents."

Statements such as this one have not been accompanied by demand for reparations nor have the mildest sanctions been imposed. Indeed the United States has participated in 1969 with Peru, Ecuador and Chile in a conference dedicated to the exploitation of the fishing resources in the South Eastern Pacific. The joint declaration of the nations participating in the conference stated that "the agenda is based on the understanding by the juridical positions of the parties regarding maritime jurisdiction, and on agreement not to debate or alter any aspect of these positions."

The net result of these declarations by the United States is difficult to assess. Seizures are continuing, and in January of 1971 the fines and licenses imposed on U. S. flag ships by Ecuador alone ($830,000) was equal to the integrated value of all prior fines. From the point of view of these countries, it is hard to believe that 200-mile sovereignty has not been effectively asserted.

The most recent addition to the unilateral claims which are not acceptable to the United States are those of Canada in Arctic waters. The facts surrounding the Canadian claim to a 100-mile contiguous zone for pollution in Arctic waters have been well documented. The motivation for the Canadian claim was founded in the discovery of oil on the North Slope and the subsequent attempt by the tanker *Manhattan* to establish a sea lane for the transport of oil. The Canadian Act extended Canadian jurisdiction in the Arctic for a distance of 100 miles from the coast, for the purposes of preventing or controlling pollution. Such jurisdiction extends to the requirement that all vessels carry certain pollution control equipments, that they show evidence of financial responsibility, that vessels submit to boarding and inspection, that vessels be prohibited from navigation within prescribed safety control zones, and are prohibited from all navigation during certain seasons. The United States' position formally expressed to the Canadian government was:

> The United States does not recognize any exercise of coastal jurisdiction over our vessels on the high seas and thus does not recognize the right of any state unilaterally to establish a territorial sea of more than three miles or exercise of more limited jurisdiction in any area beyond 12 miles.

A further statement of the State Department stated that "the United States can neither accept or acquiesce" in the unilateral extension of jurisdiction on the high seas and that such recognition would be taken as precedent for the unilateral extension of jurisdiction over the high seas by other nations.

In the Canadian reply, the argument was that the United States had, itself, established various contiguous zones, that the Arctic was an area with unique characteristics and that the Northwest passage was not an international strait.

The issue, at the present, remains theoretical, in that no test of the Canadian Jurisdiction has, to my knowledge, yet been made. The difficulties experienced by the *Manhattan* are such that another voyage is not likely in the near future. Submarine designs are in progress, but it will be some years before such tankers will be completed and certainly not before 1973.

It is somewhat curious that a declaration on the Continental Shelf should lead to a reopening of the question of sovereignty on the high seas. It is not surprising that it opened as yet unresolved questions on the continental shelf. The definition of the outer limits of the continental shelf has been such a belabored subject of legal writers in the past decade that it seems hardly anything else can be said, prior to attempts to reach an agreement on its definition. Certainly, the question as to whether the Convention on the Continental Shelf substantially modified the Truman Proclamation is unresolved. The great body of United States resource interests insist that the definition encompasses the entire geologic shelf, including the toe, and the Department of Interior continues to grant leases in waters deeper than two hundred meters. It is equally true that

legislative history and international court dicta suggest that no such extension was implied. The proposals of the United States Commission on Marine Resources and the Nixon proposals both place a limit with variants on jurisdiction and administration over the outer shelf. Despite the volumes of legal literature, few conflicts involving the Continental Shelf Convention, to which the United States has been a party, have arisen. No nation has yet shown any indication of a desire to exploit the resources of the shelf which appertains to the mainland United States continental margin nor is any nation likely to do so.

In assessing the United States tolerance to unilateral extensions of continental shelf sovereignty other nations will certainly be impressed by the fact, the Nixon proposal notwithstanding, that the full benefit of United States municipal legislation is accorded to its lessees on the disputed areas of the shelf and that the U.S. Courts in the Georges Bank and Cortes Bank cases have denied its own citizens the presumption that these areas are not under U.S. jurisdiction.

We may, therefore, expect United States interests to be affected when its flag ships of exploration, exploitation and scientific research operate on the continental margins of other States.

One such example is a current source of international friction, that of the status of the seabed surrounding the tiny Tiaoyutai or Senkaku islands northeast of Taiwan. These small islands, lying on the periphery of the Ryukyu arc but not geologically a part thereof, have been essentially uninhabited and considered worthless. The Potsdam Declaration was silent with respect to these islands when Taiwan was returned to China. Some legal evidence exists indicating that Japan has not regarded these islands as a part of the Ryukyus.

The recent discovery of oil potential in the basins surrounding these islands has completely changed the interest of the Republic of China and Japan with respect to sovereignty over their islands. Acting on its own presumption of sovereignty, the Republic of China had granted leases to U.S. flag ships for exploration in this basin. The United States, however, assumes Trusteeship over these islands and proposes to transfer them to Japan with the transfer of the Ryukyus. As a result, U.S. flag ships operating under lease with Taiwan have been withdrawn from the area. At issue here is more than the sovereignty over these islands but the much deeper and unresolved question of the effect of tiny rocks and other accidents of sea level on the jurisdiction over sea bed resources. The example is further illustrative of United States policy of avoiding the pressing of the interests of its commercial flag ships so long as differences of opinion exist on oceanic jurisdiction.

It appears that the following generalities may be distilled from the current history of non-agreement:

1. Unilateral claims for extension of jurisdiction beyond that specifically permitted by the 1958 Conventions have been resource oriented. They have all been based upon the desire to exploit and/or conserve, or to prevent pollution by ocean resources.

2. Unilateral claims for extension of jurisdiction beyond that specifically permitted by the 1958 Conventions have been geographically explicit. That is, they have not enunciated a fundamental principle of jurisdiction by which other nations could determine acceptable extensions of their own jurisdictions or by which other jurisdictional assertions could be made.

3. In the face of non-agreement, United States policy has for the most part been effectively *de facto* recognition of the asserted jurisdiction with expressed reservation of acceptance pending treaty negotiations.

If these trends do indeed exist and continue past the 1973 Conference and in the event of non-agreement, some prediction may be made of the effect of their continuance.

With respect to the first of these trends, United States interest has focussed on the continental shelf and territorial sea of the East Coast, West Coast and Gulf Coast. Pressure for new extensions of jurisdiction will probably not come from these areas but from problems associated with the non-continental portions of the United States. The Aleutian chain, the Hawaiian archipelago, Puerto Rico, Guam, Samoa and the Trust Territories of Micronesia have resource problems and potential in the ocean which are quite distinct from those of the continent. Assertion of jurisdictional claims with respect to these areas will have profound effects on the major archipelago and island complexes of the international community. Conversely denial of unilateral claims by other such international communities will have a profound effect on the archipelago and island complexes of the United States.

The developing resource dilemmas of the state of Hawaii demonstrate the potential problems. The territories of the state stretch virtually the full length of an archipelago extending nearly 1500 miles from the "Big Island" of Hawaii to the northernmost Kure Island. The islands are basically volcanic sea mounts along the back of the raised Hawaiian arch. The youngest volcanoes are in the southernmost part of Kilauea on the island of Hawaii currently active. Subsidence has caused the northern sea mounts to sink so that many, such as French Frigate Shoals, are completely submerged. As a consequence, quite identical pieces of geophysical mass are either part of the land mass of the United States, part of the continental shelf of the United States or under completely international waters. The jurisdiction is dependent solely upon the accidental location of the water line.

The distribution of both living and mineral resources throughout this chain are the result of or dependent upon the geophysical events and resulting geophysical structure of the entire Hawaiian arch.

A few examples of living and natural resources will illustrate the point. The best example from a pedagogic view is that of the precious pink coral. The species which is found throughout the chain in water depths

of from 300 to 400 meters is of a particularly valued quality and color—the so-called angels breath corals. The world market for jewelry, primarily coral necklaces and broaches, is currently only ten million dollars per year. The market potential for this jewelry has not yet been developed and it is conceivable that a precious coral necklace will in time be as much of a must item in a woman's collection of jewelry as is a pearl necklace.

It takes from sixty to seventy-five years for a coral fan to grow to harvestable size, but previous harvesting techniques have been crude and destructive. With the modern small submersible, selective harvest is now possible. Since the precious coral grows throughout the Hawaiian chain, the Hawaiian producer will be faced with the competition between his more costly conserving harvest of the resource and other nations' low-cost destructive harvest from international water reefs. Some such destructive harvest has already taken place with its consequent effect on the precious coral market. Should this product develop as a valuable resource, and there is no reason to believe that it will not, then pressure will exist for placing the entire Hawaiian resource under one jurisdiction for purposes of conservation and exploitation. The strong pressure will be to make this jurisdiction that of the state of Hawaii, or at least that of the United States.

Manganese deposits in the Hawaiian chain are a second possible contender for extending domain. In contrast to the manganese nodules in the broad areas of the Pacific, manganese deposits in the vicinity of the islands are more frequently in the form of a rather thick pavement. Of greater significance is that due to some as yet not understood volcanic interaction, the chemical composition is quite different from that of the broad ocean nodule. Some indications are that these may be higher in cobalt, platinum and other rare elements than is normally encountered. The location of these pavements is in water depths of several thousand feet and as a consequence are just far enough from the islands to qualify as located in international waters. Certainly economic justification will require processing at or near the source. In this regard, the close proximity of the islands heightens the economic potential. Inherent in the entire mining and processing process is the possibility of ocean pollution. Also inherent in the ocean mining is an over production of some elements and an economic dislocation due to market dumping. In short, all the ingredients are again present for demanding single management for that entire resource which is peculiar to the geology of the Hawaiian chain.

Numerous other resources are interrelated with the geologic or biologic unity of the arch. The green sea turtle which spawns in the vicinity of French Frigate Shoals and migrates to the vicinity of Kuai, and the dolphin which adjusts its life habits to the lee shores of island and reef, are two examples. Others include the reef fishes, such as the Opakapaka, the Ulua, and the Auweoweo, which have a complex and as yet not understood interaction with neighboring reefs. The control of the spread of the Acanthaster star-fish, the preservation of coral communities, and the harvest of the Opihi, all have economic ecologic (and as a result sociological and political) dependencies which are entire to the Hawaiian chain. Single jurisdiction for the management of these resources is quite inevitable and in the event of nonagreement, strong pressure for unilateral United States protection will obtain.

Quite different types of regimes will be required for the Aleutian chain, the Bering Strait, Micronesia, Puerto Rico and Samoa. In each instance, the desired regime will depend on resource and geology. It is suggested that in the event of non-agreement, the United States will be called upon of itself to make creative innovative extensions of its jurisdictions, if its oceanic resources are to be protected and the environment preserved.

Other nations will be similarly constrained to extend national jurisdiction. The situation in the Ryukyus, the Philippines and Indonesia is not totally dissimilar from that of Hawaii. Quite different problems exist in the Arctic and the Antarctic and the scenarios in the Mediterranean and the Carribean are almost too frightening to contemplate.

A unique and novel situation that must be faced is that of the artificial island. The technological feasibility of low cost, large, stable platforms is virtually established. Floating airfields and other modest enterprises such as floating industrial plants and expositions are planned within the next decade. From a legal standpoint, perhaps the most significant project is Project Kotair. This is the result of a Japanese study of the economic evolution of ten southeast Asia countries. This study results in the proposal for a floating artificial city in the year 2020 having a population of 30 million. A zone of transient jurisdiction will thereby be created somewhat akin to an entire nation whose territorial waters and continental shelves are continuously changing.

If, as suggested, that in the event of non-agreement the United States will be required to engage in innovative unilateral claims; other nations will also engage in unilateral claims and some of these claims will be rejected either by the United States or others. Then the question of United States policy under such conditions is highly relevant.

The wisdom of the current policy with respect to such non-agreement will become apparent in 1973. If a roll back to the twelve-mile limit and a narrow shelf is accomplished, then the policy of "jaw boning" will have been vindicated. In the event of non-agreement, then the long-term prospect for this approach is dim. Certainly, it is in the fabric of English common law and customary international law that a right can be perfected by continuous open notorious and adverse assertion. Indeed, the United States acquiescence in the twelve-mile limit is one example of this policy in operation.

There appear then to be two major premises which ought to accompany U.S. policy in the event of non-

agreement; (a) that the assertion of a unilateral claim of jurisdiction be accompanied by the assertion of a doctrine so that nations can derive therefrom the complementary assertions that we will accept and those that we will reject; (b) that assertions of jurisdictions by other nations which do in fact conflict with United States interests and interpretation be tested immediately upon assertion and continuously thereafter; that United States flag ships and instrumentalities involved in the assertion of such rights be protected until the rights are respected or until a conference to resolve such rights is held.

The alternatives to these apparently over-simplistic alternatives will in some measure result in permanent extensions of jurisdictions in the ocean each of which will make succeeding conferences increasingly difficult. Indeed, the policies enunciated will be difficult to carry out not only because of the potential conflict, but because they fly in the face of a current presumption of world reasonableness and rationality. Indeed, 1973 will be the test of that presumption. Let us hope that it will be successful. Let us further hope that the distasteful alternatives suggested by this paper will provide a negative stimulus which will produce success.

Remarks: Pell

Hon. Claiborne Pell, United States Senator from Rhode Island

Monday morning, June 21

First I would like to congratulate Lew Alexander, the Law of the Sea Institute, and all of you here. I certainly wish I could be here for the whole session. This is a subject in which I have been interested for some time. Some of you may recall that I used to press Senate Resolution 33, which provided a legal regime for the seabeds, and at that time we couldn't even get witnesses to testify on the issue. I think the present draft treaty that President Nixon has proposed is excellent, and of course I am behind it.

I saw the schedule which you have here, and I think the papers are outstanding. I would like to be able to listen to the speakers' views on this subject. What happens if the Law of the Sea Conference fails in Vienna, or in Geneva, in the winter of 1973? I think all one can say is that even if it fails, we will nevertheless have moved down the road a little bit. Some of you may have been delegates to the 1960 Conference when we failed by one vote to establish a territorial sea limit, and since then we have moved a bit ahead. I am afraid, however, that a failure at the 1973 Conference will bring us closer to the median line approach on deep seabeds. We hope that this does not happen, and this is why I am doing all I can in support of the President's policy.

The oil people particularly are very dubious about the idea of the intermediate zone, and would like to have a wide territorial zone of their own. Further hearing will be held on this issue before the Subcommittee on Oceans and International Environment. In view of the upcoming Geneva meeting, I certainly think such hearings are in order.

The work of your conference here will be very helpful. I think your deliberations will be a factor in those that will be taking place in Geneva these coming weeks. I know that your final conclusion will be helpful, and I would be surprised if your conclusion were not to the effect that if no agreement is reached at the Conference the long-term result could be pretty disastrous for the world.

As a United States delegate to the last General Assembly, I tried to push for a decision-making conference to take place in 1973, but we did not succeed entirely. The question now is, can we afford to wait until 1974? I hope that those of you who are here will keep up your interest and impress upon the government as vigorously as you can the need to move ahead in this Conference.

I thank you, and I apologize for not being with you longer, but I have to be back in Washington this afternoon.

Discussion

Monday morning, June 21

McDougal: I would like to put a question to Dean Craven. First, I would like to say that we are all indebted to him for his insistence that claims be related to specific resources and to specific policies. I think, however, that we cannot let pass his suggestion that the United States has already exhibited a *de facto* acceptance of the South American claims. This is too important a point to let go by. I agree entirely, I think, with the recommendations that Dean Craven has made, but I disagree completely with the reasoning whereby he arrives at the notion that the United States has exhibited *de facto* acceptance.

This reasoning raises and confuses very difficult problems about the creation of customary international law and the establishment of claims to specific resources. What we have here are two very different problems. With respect to the establishment of claims to specific resources, the first question is whether under customary international law the resource is subject to exclusive appropriation at all; then, if the resource is subject to exclusive appropriation, the question be-

comes, what amounts to the occupation that will serve as exclusive appropriation?

To create customary international law, there has to be a flow of words and behavior that creates certain expectations of authority and control in the whole larger community. It takes a great amount of relatively uniform behavior and a compatible flow of words by many parties over a considerable period of time to do this. I don't think any skilled lawyer would dream that the South Americans by their unilateral claims have established a customary claim to their 200-mile sea zone. If we turn to the prior question of whether they can by historical customary international law make exclusive appropriation of these resources, their difficulty is that these resources belong to the whole of mankind. They have long been a heritage to the whole of mankind.

Even assuming that the South Americans alone have changed the character of these resources under customary international law, they still would have to establish occupation and control. This means use, development, effective control for a period of time sufficient to create expectations of future authority and control against the rest of the world.

I would like to ask Dean Craven just how he thinks such expectations have been established? I do not think they have, although I would agree with his concluding recommendation.

Craven: I would reply first by saying that I think, in that sense, that a good, valid case has been established. As you indicate, there has to be an extension of authority, and the acceptance of that authority. Let us look at it from the standpoint of the South American nations, from the *de facto* standpoint. The *de facto* standpoint is that any time they find a U. S. flagship in a 200-mile zone they are able to arrest it, to compel it to enter into the port, to fine it, to license it, to receive the money, and then to release the ship having satisfied what they regard as an invasion of their territorial waters. It is irrelevant to them that the fishing vessel is reimbursed by the United States Government. That means nothing whatsoever to them. What has meaning for them is that insofar as their ability to exert authority and sovereignty over those ships that came, this was carried out in the complete measure that they desired; and they interpret this as being in accord with their assertions of sovereignty.

The only limitation that we up to the present time have imposed has been a prompt verbal and written statement in the event of each one of these seizures. The statements have not been accompanied by any request for reparations, nor have they been accompanied by any legal actions to obtain these reparations for damages. The assertion has been merely a verbal one, with one exception, that we have a suspension of arms sales. This result was not a sanction, it was a permissive action of the United States. We have suspended arms sales to many nations, for many reasons. The issue has been raised because U. S. flagships are fishing in those waters. If in fact there were no ships fishing there, and therefore no conflicts, the issue might never have been raised in this manner. Then I think you would have a lesser case in saying that we are not in agreement.

Gorove: I am Professor Stephen Gorove, University of Mississippi School of Law. Dr. Brown and a number of other speakers have referred to the concept of the "common heritage of mankind." I also talked about it briefly during our last year's meeting. Today's discussion by Dr. Brown brings this new and somewhat revolutionary concept once again to the limelight. I think one of the first observations that may be made relates to the largely undefined nature of this concept. Dr. Brown intimated that the concept in many people's minds has political as well as moral implications, and perhaps, at the present time, the legal implications are the least apparent. So it seems to me that the concept is an evolving one, especially insofar as the legal connotations are concerned.

Reference has been made to the term "mankind" in an increasing number of places in international documents. Apart from the Declaration, for instance, we find reference to it in the field of space law. Articles I and V of the Outer Space Treaty, the operative parts of a binding international agreement, speak about the "province of mankind" and the "envoys of mankind," respectively. I believe that the concept of mankind will need some clarification with particular emphasis on its juridical ramifications. How can we expect the international community to honor these requirements pertaining to mankind which have been incorporated in international agreements or to live up to the spirit of U. N. resolutions if there is no clear-cut understanding of at least the basic legal implications? It would seem to me, for instance, that mankind could stand for all nations of the world. It also could stand for all people in the world. Furthermore, who represents mankind? Does the United Nations represent mankind? Certainly, the United Nations does not include all nations of the world. Therefore, I believe we do have a problem of representation here.

If we turn to the other part of the problem, the concept of "common heritage," again other queries seem to arise. What does "common heritage" mean? Does this involve a property concept? Are we talking about certain allocations of authority or power? Furthermore, what kind of consequences are we talking about? I think some of these questions ought to be raised and the concepts clarified if we want to affect changes in the prevailing situation and if we want to have this concept changed from a moral or philosophical concept and make it a clear-cut legal concept, especially in view of the necessity or need for eventual implementation.

Brown: The paper which I have prepared for this meeting is far too lengthy for me to read here this

morning, so I have simply abstracted it today. But the paper will be printed in its entirety in the *Proceedings* of this Conference, and what I had to say about the common heritage concept can be more easily read in the full published version of my paper.

Vargas: My name is George Vargas of Mexico City. I have one question for Dr. Burke and one for Dr. Craven, concerning the 200-mile limit—whether the present law of the sea is making proper allocation of all resources on a worldwide basis. Both Dr. Burke and Professor McDougal seem to think that the present system is best able to provide for the greatest distribution and production of the sea's resources. I would like to hear Dr. Burke's opinion on how the creation of regional rather than global arrangements might contribute to a better allocation of these resources.

My second question is this. The Latin American States, starting with the principles of Mexico in 1956, and continuing with the conferences in Montevideo and Peru, have stressed the importance of various factors, such as geology, geography, and resources, in claiming distances of offshore zones of control. Dr. Craven, have you considered the possibility of establishing a plurality of regimes applicable to very specific areas according to the peculiar characteristics in those areas? In this sense what you were explaining about Hawaii or Puerto Rico could be applicable to other areas of the world; that is to say, a maximum width of territorial seas might be internationally accepted, but modified according to the specific characteristics of particular countries. I wonder if I have made myself clear? Concerning this creation of customary international law, I would say if you would comment on the legal implications that a number of countries have accepted this 200-mile limit and that Communist China and the Republic of China have accepted 200 miles also, and the United States Government has made a recommendation of the treaty.

Burke: If I understood the question, it didn't have anything to do with what I said this morning. The question was how regional approaches might lead to principles leading to a better production and distribution of values. I do not believe that failure in 1973 would lead to regional approaches that have that effect. The proper way to make decisions about the oceans is on the widest inclusive basis, and that includes everybody. We are talking about an area that has been the common heritage of mankind, and the question is, what form of institutional structure should be devised? If regional institutions were set up as a result of Geneva 1973, that is an entirely different proposition. I think then there may be some prospects for enhancing all of our values, but if what you are suggesting is that each continent, or a portion of each continent, go it alone, then I think it would be destructive of values on a world-wide basis. I think specifically with respect to fisheries that a regional system is likely to eventuate, but it would have to be one that is planned, rather than one that grows up on an *ad hoc* basis as those we now have which are working incredibly badly.

Craven: In response to your question, I prepared a paper a few years ago with reference to the law of the sea which indicated that it is perfectly possible to develop jurisdictions which are entirely resource oriented. Your concern then with jurisdiction is not in respect to a particular place, but to a resource wherever it happens to be during the time the jurisdiction is operative. It seems to me one of the problems that we have had has been the sweeping declarations of sovereignties over very, very large portions of the sea, when the real intent of the declaring nations was over the resources.

I pointed out at that time that oil fields are not very large in size. Nations which are interested in exploiting oil really do not care about all the property under which the oil is not. They only care about the property under which the oil is, and they only care about it during the period that it is there. If we, therefore, approve a regime which conveyed jurisdiction only during the slow period, at least with respect to that particular concern, we will have resolved the international question by looking at it as a real problem rather than a fancy or an imaginative problem of control over a very large piece of real estate in which there is in fact no control.

The question of the 200-mile limit in South America has been one of a fisheries controversy, and the only real controversy then is when the tuna at a particular time of year move down to that part of the ocean. So if you are having a real question of conflict, it is a question of who gets the tuna, and you only have this problem when there is tuna fishing. The real international question is the tuna resource, and the equitable allocation of that resource.

Mankind is not very much interested in control over the vast reaches of the ocean. Mankind is interested in the allocation of the resources of the ocean.

Anand: I am R. P. Anand from the Woodrow Wilson International Center for Scholars in Washington, D. C. I was quite surprised by the view that in the absence of an agreement in 1973, the Coastal States' Jurisdiction might be extended to mid-ocean. I thought that under the provisions of the Continental Shelf Convention, and under general international law, a consensus had already developed that such jurisdiction could not extend up to mid-ocean. I do not deny that some sort of agreement may develop for an extension of national jurisdiction to 100, 150, or perhaps 200 miles, and that that may affect the freedoms of the high seas, especially scientific investigation. But I do not think that such an extension, even if accepted, will significantly affect shipping or international transportation. My feeling is that while the freedom of navigation and other freedoms of the high seas must be protected, they will have to be adjusted to an extension of national jurisdiction and to the new uses of the sea.

Castillo-Valdes: I am Senor Castillo-Valdes, Ambassador from Guatemala to the United Nations. I would like to ask Dr. Brown about the source of information for the remark he made on page 17 of his report, where he says, "Finally, under this head, the writer has received uncorroborated reports that Colombia and Guatemala are now seriously considering the extension of their limits to 200 miles and that even Mexico is beginning to have second thoughts." My question is only in regard to Guatemala, and not for the Colombian and Mexican Governments. Could we know the source of information or is it a top secret?

Brown: I am really put on the spot this time. I am not at liberty to reveal the source of my information beyond saying that it was a well-informed Latin American gentleman. I repeat, however, that these were uncorroborated reports. I have no hard evidence and hoped that my remarks might provoke some response from the floor.

Johnson: Milt Johnson from NOAA of the Department of Commerce. I am speaking only for myself, of course. My question is directed to Dr. Burke. I gathered from these discussions of limitations that the alternatives which you expressed were almost entirely negative. I wondered if there were some additional, more positive alternatives. For example, you pointed out how difficult or impossible it would be to carry on research, but I would submit that despite limitations of this kind, you might be able to suggest some positive alternatives here. Surely there are some?

Burke: If you are speaking of research in particular, the only alternative that occurs to me would be something that people have been talking about recently; that is a new international institution which might free up the attitudes of some States of suspicion toward investigation in areas adjacent to their coasts. Whether such an institution evolves, of course, is entirely speculative; and what I was doing, admittedly, is speculating about the horribles that one can anticipate. But I think there is some realism in expecting a diminishment in research in particular. Partially that is because of expectations that are now being created which Dr. Craven terms the *de facto*. The *de facto* situation is that research is not being done. These acts are not being performed, and it is not that the States deny requests, but that the scientists do not ask for it. So the *de facto* situation is that in many respects the area surrounding the Latin American continent is not being investigated.

With respect to other particular activities, it is possible that a failure at Geneva would not necessarily be destructive in terms for example of fisheries. I think that there might be some developments there by way of international agreements following on unilateral claims that would improve the situation and eliminate the sort of chaos we now have, with complete unanimity in most instances being required to make management decisions. That would be a considerable improvement, but it would have to follow on, it seems to me, arrangements that were negotiated among States. We would have a much more intense negotiating environment with respect to fisheries in the event of a failure in 1973. No matter what States do with their fishing zones, they will have to negotiate other arrangements.

deSoto: This remark I am going to make is more of a reply. A query has been put as regards the possibility of support by Colombia and Mexico for 200-mile jurisdiction over the sea. I cannot answer for them, but I can say that both voted in favor of the Lima Declaration in which the right of the coastal State to set the extent of its jurisdiction for the purpose of exploitation of resources was recognized.

Remarks: Oxman

Bernard H. Oxman, Assistant Legal Adviser for Ocean Affairs, U. S. Department of State

Monday afternoon, June 21

The subject today, the consequences of nonagreement, is a very dismal one; it is the kind of subject that tempts one to describe the negative consequences of nonagreement for somebody else. This is because the subject in very skillful hands can become an extremely subtle form of psychological warfare. As I'm sure some of you have read, Herman Kahn and others have observed that the desire for agreement is in effect a substantive factor during negotiation. In fact, the refusal of States in certain situations to negotiate under pressure is simply one manifestation of this process. Were I to put it bluntly, I would say that you tend to be in a better negotiating position if the other side has, or believes it has, more interest to reaching agreement than you do.

Were I to adhere to my own counsel, I suppose I should announce to you right now that I don't regard the consequences of nonagreement in law of the sea negotiations as very detrimental; or I could be even bolder and try to persuade you that I think nonagreement would be better than agreement. I don't try to do this for three reasons: first, as I think was amply demonstrated by previous speakers, this isn't true; second, if I said so, you wouldn't believe me; and third, by saying that agreement is better than nonagreement, I have not said that this is true of any agreement, just of some agreements. The last is an extremely critical point, and perhaps some examples are worthwhile.

An agreement permitting a broad territorial sea or interference with movement through international straits

could have a significant destabilizing effect on both the balance of power and the flow of international trade and commerce. It is indeed difficult to conceive of a justification for subjecting the world to such a result or for offering to legitimize the views of those who advocate it.

An agreement which failed to harmonize and accommodate the major interests in the oceans clearly could not be ratified or otherwise respected by significant portions of each relevant segment of the international community. At best such an agreement would be pointless. In fact, it could sharpen rather than reduce the differences between States. An agreement of this type could be one that failed to provide real opportunities for developing countries to benefit from the oceans, as it could widen rather than narrow the gap between the rich and the poor; by "benefit" from oceans I mean the opportunity to develop the capacity for using the oceans, as well as the opportunity to enjoy a share in fees or royalties that are collected. An agreement that has the effect of reducing the world's protein supply from fisheries, whether as a result of pollution or as a result of under-utilization or over-exploitation, would also fall into this category. An agreement that fails to take account of the experience of thousands of years—the fact that concentrations of people and activities result in disputes which must be resolved with order and justice—would amount to a pronouncement of hollow principles. There must be flexible means for dealing effectively with new situations as they arise, and means to resolve the inevitable disputes that result from increased use of any area or any resource.

The tone of these remarks perhaps suggests an unspoken prejudice against the processes of both customary law and codification. What I mean to say is that if a new agreement is to make sense, we must take account of the weaknesses of both processes: customary law as well as codification.

Customary law is frequently formed in somewhat the same way as a child is taught not to touch a hot iron. If another State reacts and burns you, you retreat. A new rule—don't touch the hot iron—has indeed emerged, but at what cost? Do we really have to give each other blisters in order to have law? If matters of great importance are involved, can we really regard a syndrome of strong actions and stronger reactions as consistent with the spirit of the United Nations Charter?

Codification has many well-known virtues such as clarity, consistency, and predictability. But unless it is accompanied by procedures for the application of rules to new and different situations, it could result in rigidity, and accordingly prove to be only a transient guide.

In this light, it is perhaps best to regard the next Law of the Sea Conference as devoted mainly to what the UN Charter calls the progressive development of international law. This is in fact reflected in the preamble of the resolution in which the General Assembly decided to convene the Conference. Indeed, to elaborate on the point, the draft resolution was amended to specify that this development is to take place "in a framework of close international cooperation." Together the clauses on progressive development and close international cooperation imply agreement not only on rules but on the cooperative system for implementing these rules. Against this background, I would like to examine an aspect of the consequences of nonagreement that in many respects has very little to do with the traditional analysis of the law of the sea.

Briefly, I would like to discuss the lost opportunities, the chances missed, the ideas that will fly by us unless captured as it were by agreement.

During these negotiations we must all endure the tired incantations of the past, almost the tape recordings of "Geneva 1958": the absolute theories of the absolute right of the flag State on the high seas, and the absolute theories of the absolute sovereignty of the coastal State over adjacent waters. Despite all the attempts to dress these concepts in new clothing, both remain reflections of a very conservative approach to international law and relations, for both rest on the premise that a State can do exactly as it pleases. The difference is that in one case the argument is that the flag State can do as it pleases in the broadest possible area of the seas, and in the other case the argument is that the coastal State can do as it pleases in the broadest possible area of the seas.

The "new opportunity" is to seek out new directions of an international nature with respect to certain matters. The very nature of this new opportunity is such that it can only be realized by agreement. One can see the outlines of this opportunity quite readily with regard to the seabeds, which will be a major subject under negotiation. We are speaking about a new international regime for the seabed; about international machinery for regulating the exploration and exploitation of seabed resources; about a system of benefit sharing, which will assure equitable distribution of benefits, particularly to developing countries; about an international system of technical assistance in order to allow less privileged countries to enjoy the benefit of using the seabeds; and about a mechanism of compulsory dispute settlement. None of these can be achieved without agreement. None of these opportunities can really be taken in hand if the process is simply allowed to flow without a formal meeting of the minds.

There is another, broader, international aspect of the seabeds negotiations as well. These negotiations point, however subtly, to a new direction in international relations. If the negotiations succeed, they can form a model, albeit a general model, for other international endeavors with respect to other matters of equal importance. In this connection, I find it interesting that both admirers and opponents of the United States draft Seabed Convention have called it radical. Indeed, from the perspective of the absolute

national approaches to the oceans of the past, it may seem so; but it contains a large number of realistic elements which I think make it possible to achieve some of the new goals that are set forth in this seabeds endeavor.

It recognizes that new departures regarding the seabeds, of the magnitude that many nations are now discussing, must contain in them a system of guarantees for the States concerned, because these States, both developed and developing, are embarking upon a new experiment for which there is little past experience to draw upon. I think it is fair to say that the endeavor cannot succeed without the balance necessary to assure a system of responsibility under the treaty, and responsiveness to the relevant interests that are involved. Failure to achieve this assurance of responsibility and responsiveness will in all likelihood mean failure of the exercise itself. It is clear, for example, that a large plenary organ cannot in and of itself perform this function.

A further new opportunity at a Law of the Sea Conference is to create a complex, not a simple, system for balancing coastal, maritime and general international interests. Boundaries cannot perform this function. They separate absolutes. Even if one is speaking about a boundary for a specific purpose only, it separates absolute coastal State jurisdiction in one area from no coastal State protection in another. We have to recognize that coastal State interests do not run to twelve miles and then stop, and we also have to recognize that international interests do not exist solely seaward of the continental margin or 200 miles or any other figure. With respect to straits, a strong international interest even runs within twelve miles.

The trusteeship concept which was devised for the United States seabed proposal rests on the thesis that both coastal interests and international interests can be accommodated within the same area, with respect to the same resources, and regarding the same functions.

Most of you are already familiar with the specific type of balance that was proposed in the United States seabed treaty in order to accomplish this. To describe it briefly, this area, the trusteeship zone, is an area of common heritage which is subject to general international treaty rules and regulations which are laid down by the international community through a new international organization. However, subject to that system, it is the coastal State that performs the licensing and other regulatory functions in the trusteeship area. It is the coastal State that can guarantee that no one can carry out exploration or exploitation in the area without its consent. It is the coastal State that enjoys the immediate benefits of the resources, and shares in the financial benefits that result from royalties derived from those resources.

Thus what one has is a simultaneous operation of coastal and international regulatory functions. Needless to say, such a balance has to be struck carefully so that there is not a constant collision; there has to be some kind of clear division of functions between the international organization and the coastal State. But what that division is, within certain limits, is not very important. What is important is recognizing the concept that there is both an international and a coastal interest in a very substantial area off the coasts around the world.

A further very dramatic opportunity offered to the Law of the Sea Conference, which could be lost if it fails, is the opportunity offered by Ambassador Pardo of Malta most explicitly at the March session of the United Nations Seabeds Committee to deal with different ocean uses in a coordinated fashion. In a very detailed and impressively comprehensive address to that Committee, Ambassador Pardo offered a truly dramatic opportunity for a new and comprehensive regime covering the oceans.

One is tempted to react to such a proposal with a degree of shock, particularly if one has had at least some background in the traditional law of the sea. But I think, first of all, Ambassador Pardo's proposal should be examined in the context of what the General Assembly has asked the Conference to address in any event.

There are a large number of issues that will be dealt with, whether they are dealt with comprehensively or not. Among these are the breadth of the territorial sea; international straits; fisheries, including coastal State rights regarding fisheries; seabed resources, including coastal State rights regarding seabed resources; scientific research; and pollution. Accordingly, in reading Ambassador Pardo's proposal, one must bear in mind the fairly broad range of subjects that will in all probability be dealt with in any event.

Against this background, the real question posed by Ambassador Pardo, in my opinion, is the degree of formal unity that the solutions to these different issues require. For example, even Ambassador Pardo himself noted that the treatment of different matters within the structure he proposed would have to vary.

The proposal raises a number of other questions. For example, it immediately raises the issue of how ambitious we can afford to be in this undertaking; or conversely, as Ambassador Pardo himself put it, how unambitious can we afford to be in this undertaking? Is it wise to attempt to fit the solution for different problems, with different relevant interests affecting them, into the same structural framework? Will the greater simplicity of this comprehensive approach overcome the obvious negotiating difficulty that is involved: that the structural outline must be widely understood and widely accepted before particular balances and accommodations are reached or particular problems are resolved within that structure? In other words, should we regard Ambassador Pardo's proposal as a general goal that may in the end be achieved in different ways from different avenues, or should it be regarded as a guide to negotiation on all matters?

There is a related problem involved in the very nature of the structure Ambassador Pardo is discussing. He has framed his proposal in a way that implies an extremely careful balance between international and coastal interests. Should this balance swing too far in one direction or the other, the entire system becomes non-negotiable.

There are further questions one might ask regarding this new opportunity. For example, is it wise to attempt to replace too many traditional law of the sea concepts at the same time? The proposal to do so has the obvious merit of forcing States to rethink all of these concepts, but in some respects, at least, it may be easier to leave well enough alone. For example, it is clear that all coastal States are used to thinking in terms of a territorial sea. Right now there is a broad consensus emerging on the negotiability of a twelve-mile territorial sea if the straits problem and other problems can be resolved. Is it really wise to upset this situation?

The continental shelf raises a similar question. A large number of States adhere to the doctrine of the continental shelf, and are using the continental shelf landward of 200 meters. As in the United States trusteeship proposal, is it not wiser to apply the new system, including coastal State rights within a reasonably broad zone, beyond a narrow continental shelf limit, and let the continental shelf doctrine stand within that narrow limit?

Is there a necessary connection between the nature and extent of coastal State seabed rights and coastal State fishing rights? Ambassador Pardo says there is. How do we regulate species that migrate beyond any conceivable national limits, either along the coast or across the ocean? Is it wise to regard food as a source of revenue, except perhaps in terms of projects designed to improve knowledge about, and management of, the food source? At a time when many regional systems of fisheries management are emerging in different parts of the world, is it sensible to superimpose centralized global management? Do all coastal States either desire, or have available, the necessary manpower resources to design and operate coastal management systems all by themselves? How is the global interest in maintaining the food supply protected if the coastal State is given the right to prevent, or place burdens on, fishing for those portions of stocks off its coast that its own nationals cannot for the time being exploit by themselves? How are developing countries without big coastlines to develop strong fishing industries if they cannot follow the fish off the coast of other countries, or if they are subjected to financial burdens imposed by other coastal States that only highly-developed and efficient fleets can meet in the first place?

An additional question concerns the organizational aspects of Ambassador Pardo's proposal. How can a single international organization be structured to provide the necessary balance of interests on all subjects? The largest fishing nation in the world is a developing country that would have an extremely important immediate interest in fisheries management problems; yet it does not at this time have an interest of similar magnitude in regulations governing the method of exploiting deep sea manganese nodules. Among the largest maritime fleets in the world are those of two of the developing countries, yet these countries do not at this time have an interest of similar magnitude in fisheries.

Perhaps the most startling aspect of Ambassador Pardo's proposal was the use of the 200-mile figure. This is particularly true because Ambassador Pardo is widely recognized as the leading advocate of international solutions to ocean problems. If anything, in my opinion, his detailed analysis of the geographic situation of States would lead one to the conclusion that 200 miles is too far seaward to represent just treatment for the international community in general. Over 35 percent of the ocean is landward of 200 miles from the coast, and for many purposes this 35 percent is far more important than the remaining 65 percent.

This is clearly too much simply to exclude from international consideration, and turn over in fee simple (as we would say in the common law) to coastal States, either from the point of view of navigation, fisheries, or a reasonable prospect of having a meaningful international regime for the seabeds with significant international revenues. Indeed it would give an extremely high percentage of all fisheries and all known oil and gas reserves in the seabeds to coastal States. Needless to say, those with the big coastlines, whether they are developed or developing, would be the big winners in a very parochial sense of that word. But Ambassador Pardo did not propose this. He suggested a balance. It is rather unclear what the precise balance would be. However, if Ambassador Pardo's purpose was to tell us to stop negotiating about numbers and symbols, and accept the premise that coastal, maritime and international interests must all be accommodated in coastal areas, then I think we should all be quick to agree and begin negotiating on the precise elements in that balance. This is a difficult task, but one that can be achieved if we concentrate on the different interests that as a whole go into making that balance.

In this context, the symbols, the numbers, and the words lose a great deal of their absolute significance, and could fall far more easily into place to the extent they are needed.

The last, and in certain respects the most important, item on this incomplete list of lost opportunities would be the opportunity to take an important step toward functioning as an international community on matters of common interest. This is not inconsistent with the sovereignty of States. Quite the contrary, many of the problems we are all facing regarding the maintenance of this planet as a safe place to live are beyond the ability of any State to deal with alone. Failure to deal

with the problems together will not leave each State with the discretion to deal with them by itself. It will render meaningless the theoretical sovereign right and responsibility of every State to work out a solution. For all the understandable complaints regarding the high seas regime, this long tradition of international law gives us today an opportunity to try international solutions to our problems free of the complicating factors posed by different national sovereignties as on land.

All of these opportunities are in the wind. You can sense it in the corridors in New York and Geneva, in the excitement that something different is about to happen, and in the malaise about what all this means for the future. Perhaps we should place on the entrance to the committee room in Geneva this summer an inscription from a great work by a great English Renaissance poet: "Be bold. Be bold. Be not overbold."

Group Discussion: Review of the Consequences of Nonagreement

Jens Evensen, Director of Legal Department, Royal Ministry of Foreign Affairs, Norway

Monday afternoon, June 21

Allow me at the outset to express my thanks to you at the Law of the Sea Institute for this occasion to exchange views on an informal basis with others, lawyers and scientists, concerning the new Law of the Sea Conference.

The question of the consequences of nonagreement is a rather complex one. Nonagreement may refer to a great number of issues and angles of the problem before us. Personally I believe that it is realistic to assume that at the 1973 Conference we shall not be able and not have time to reach agreement on all of the outstanding issues.

The question of limits is only one group of questions. We have other questions equally difficult. Our attention today has mainly been focused on the issue of the limits. In this area I believe that the chances of success are uncertain. There is, however, emerging some kind of general concept about the approach to these problems which may prove rewarding. The question of the extent of the various zones in many ways is one question. The zones are linked together psychologically and also factually. I believe that the general approach and the solution would be that all these limits are treated together more or less emerging as a package deal. I believe that this will finally be the approach and outcome of our work in this respect.

The possibility of reaching agreement on a twelve-mile zone of territorial sea is not too farfetched provided that we are able to develop imaginative and new approaches to questions of pollution control by coastal States and to questions of fishery zones. A better term, perhaps, is economic zones within which the coastal States have a certain say, together with international organs that define the extent and limits of continental shelves or similar zones.

I have a feeling from my work in the UN that the United States Draft Treaty on a Regime for the Deep Ocean Floor is accepted as a fruitful approach and as a commitment by at least one of the two super powers to look favorably upon an internationalization of the deep ocean floor.

On the other side my work in the UN Committee has made me believe that the U. S. draft convention perhaps is not sufficiently responsive to the various geographical peculiarities and economic and social needs of coastal States in this respect.

Allow me to conclude my brief remarks with one observation caused by Professor Craven's brilliant statement this morning. I agree with him that the United States has perhaps acquiesced in the extensive fisheries limits of Latin American countries; but I disapprove of any suggestion that the consequence might be that the United States would try to enforce its views on other coastal States. In my opinion, it would not only be politically unwise but even politically impossible for either of the two super-powers to try to enforce its views as to limits upon other States in case of nonagreement.

I hope that such an approach—both because it is detrimental to world peace and also to the prestige of the State that would try such an approach—will not be chosen in case we shall not reach any agreement as to limits at the 1973 Conference. I hope that the solution to a possible nonagreement rather would be the one proposed by Senator Pell, namely, that we consider the 1973 Conference as one stage only on the road to final solutions and continue our work on the outstanding issues on the world scale and on possible regional conferences.

THE CONSEQUENCES OF NONAGREEMENT

Sir Laurence McIntyre, Ambassador of Australia to the United Nations

Monday afternoon, June 21

We have listened this morning to a great deal that was cogent and thought-provoking on the subject of the possibility of nonagreement, and this afternoon we have heard what I think you would all agree is a very profound, thoughtful, and authoritative analysis of the many facets of this extremely complex problem—because it is, it seems to me, a complex of problems that face all of us, all countries, the like of which the international community has seldom run across.

I am just going to make a very few brief remarks of a general nature from the point of view of one—in this case myself—who has been concerned with this problem solely in the arena of the United Nations.

The first thing I should like to say is that I think we must agree that agreement, if it is going to be reached, will be awfully hard to reach. I think any of us who recall the difficult negotiations in the Conferences of 1958 and 1960, and those of us again who have been involved in deliberations of the Seabed Committee, must agree that reaching an agreement is going to be a most arduous and lengthy approach.

On the point of reaching an agreement at the 1973 Conference we must indeed, in the light of the difficulties that run ahead, really ask ourselves in the light of the progress that has been made up till now whether in fact we shall be ready in 1973 to hold a Conference, even a first Conference, even a first-stage Conference.

This complex of problems and subjects seems to me to constitute a tremendous challenge to the United Nations, a challenge which, if the United Nations is able to see it, take advantage of it, and overcome it, could do a great deal to restore a lot of people's faith in the UN: but it is, as I say, an extremely acute problem within and for the United Nations. It is hard to imagine any problem or complex of problems that has come before the United Nations that reveals so many divisions throughout the whole UN body of membership and cuts across so many of the traditional group affiliations and associations which have been in the past a normal feature of the range of negotiation within the United Nations.

This all increases the prospect that it is going to be mighty hard to reach agreement. We can all sympathize with Professor Brown this morning, when I think he directed a few remarks at the unscientific, unpractical, and unbusinesslike way in which the Seabed Committee is so far settling down and approaching its work. Certainly, but these are the political facts of life, and these are simply illustrative of the divisions that exist throughout the United Nations, where no two member countries have interests in the sea and in the seabed that can be said to be precisely identical.

This is one reason why we may all run into disappointment. We must all be disappointed in the fact that so far, in its preparation for the 1973 Conference, the Seabed Committee, the enlarged Seabed Committee, has made relatively slight progress.

Coming first of all to the kind of agreement that might ultimately be reached (I should say agreement or agreements, because it might have to resolve itself into a series of agreements), it could be said that the various problems in this whole complex could best be disposed of individually and separately, and progress thus made step by step in a process that may well extend over a number of years. But I must say I am a little more inclined to agree with what Mr. Evensen has just said. It seems to me that we have to envision in one way or another some kind of a package deal, in which there will be something for every country, however small.

Let us look at what would happen if there is nonagreement. When I say nonagreement, I am thinking specifically of nonagreement in 1973, a complete confession of failure to reach agreement. What will happen? Some countries will go on relying on the existing Conventions together with customary law, and those countries may find that their interests are not too disastrously damaged. On this whole question of the consequences of nonagreement, I do not want to use emotive words like "anarchy" and "chaos" because I have yet to believe they are accurate; but the consequences can hardly escape being serious.

Some countries, as I say, will continue to follow the Conventions and customary law. Others will pursue unilaterally their own jurisdictional claims. Other countries again may find themselves without the will or the capacity to protect or even to understand what resources lie on their own seabeds and in the waters above. They may find themselves preempted, as it were, by other more advanced countries, by more advanced private interests—perhaps voracious interests —without their having acquired the kind of technological knowledge that will enable them to utilize their own assets in the most profitable way for themselves. And then, of course, we have the landlocked countries, which will simply have to continue to depend on the bounty of their neighbors for such maritime benefits as they enjoy.

Some may say this is not going to be all that bad; that it is not going to amount to a disastrous situation. Perhaps matters can go on in that way without too serious consequences. But this does not take account, it seems to me, of all facts of life. First of all, the whole marine environment is no longer what it was, no longer the virtually unchallenged preserve of the traditional maritime countries. Secondly, and I have mentioned this before, there is I believe a revision among the newer countries, the developing countries, of the importance to themselves and to their national economies, their national security, and their national prestige, of their potential assets that lie in the sea and

on the seabed around them. Thirdly, we have to acknowledge that the United Nations has decided that the deep seabed is the heritage of all mankind; no matter what kind of definition you give to "the heritage of all mankind," this is a United Nations' decision. And fourthly, we have to bear in mind all the time the inevitable and rapid progress of technology, including marine technology. So we come back again to the consequences of nonagreement.

It seems to me that there are bound to be continuing questions of competing national interests; questions over the extent of national jurisdiction of the territorial sea and the seabed; questions of rights of passage through and over territorial waters and adjacent waters, and especially international straits, and of the rights of coastal States to impose restrictions on passage through and over those waters; questions of the conditions that govern industrial operations on the seabed adjacent to the shore of one or more States; and again questions of pollution control and conservation of the living resources of the sea.

There could be other consequences from a situation of legal imprecision resulting from ultimate failure to conclude an international Convention or Conventions to govern all these matters. We could, for example, have a situation where governments or companies or individuals might be in a position to develop and exploit mineral resources on the seabed, but were held back from doing so because of uncertainty about the legal situation in which they would be operating. On the other hand, we could have the contrary situation where certain private interests, perhaps less inhibited by ethical considerations, might be willing to take a chance on developing in an area governed by what they might regard as an international legal vacuum; in other words, they might "give it a go," as we say in Australia, and see what they could get away with. In either case, it could mean the international community as a whole would be the loser.

To conclude, two consequences of failure to reach agreement would be at least a continuing and possibly a growing source of international friction extending through the whole of the world community, and a confession of failure to preserve this largely unexploited area of the human environment for the benefit of all mankind.

Lazar Mojsov, Mission of Yugoslavia to the United Nations

Monday afternoon, June 21

It is difficult today to deny by whatever arguments, or to dismiss on whatever grounds, the pressing need to have the international community regulate, as soon as feasibly possible, through a formal international agreement, the entire complex of laws and obligations arising out of the peaceful uses of the resources of the seas, including the seabed and the ocean floor riches.

We can no longer shut our eyes to the fact that modern development of science and technology has advanced far beyond the past and the present-day ability of man to exploit the natural resources and riches available only within a grasp of his hand—as has been the case during the millenniums—or else to exploit only the natural resources on the continent. With the conquest of space and with new technological means and technological knowledge, man is now able to substantially expand his traditional range of the nature surrounding him.

Incomprehensible and anachronic is every conservative attitude according to which nothing should change and human civilization and the international community can comfortably exist within the present confines—hence there is no need to rush with any new legal norms regulating this new activity.

The advancement of technology is already now making possible the exploitation of the natural resources of the seabed and the ocean floor. There clearly exist a recognized quantum of knowledge and instruments making this possible. Also there exist specific material interests—profits from such exploitation—hence it is almost impossible to postpone further material and commercial exploitation of the wealth and natural resources of the seabed and the ocean floor.

The absence of an international agreement regulating the exploitation could have as a result grave consequences and conflicts jeopardizing not only the immediate goal—placing at the disposal of human civilization new and additional natural resources for its further progress—but could also create new areas of conflicts in international relations. Such conflicts would not only endanger *pacem in maribus,* but also *pacem in terris.*

Already now it is possible to clearly draw the outlines of those future conflicts, and, in fact, of some of the present-day ones. Judging by the past history of conflicts between individual human communities and States during the race for the division of natural resources and riches of the continents (which has caused so many disputes and wars), it is possible to deduct from the obvious analogy devastating conclusions to the effect that the absence of an international agreement on the exploitation of the seabed and the ocean floor resources would result in a repetition of conflicts, division of the spheres of interests and influence eventually in incidents and wars with unforeseeable consequences for the future international relations. As in the past centuries when the conquest of new natural resources was carried out by colonial wars, pirate exploits and colonial domination over wide areas of

Europe, Asia, Africa and America—there is every possibility today for a new race aimed at establishing *seabed colonies* and conducting new seawars, for the purpose of capturing the natural resources of the seabed and the ocean floor, and also to proclaim this area as an open "hunting ground" for those possessing technology, money and military supremacy.

Let us now examine some of the obvious forms and possibilities for such potentially conflicting situations.

1. Incidents, already occurring in many areas involving fishing boats in coastal regions, which could flare up into real wars over the fishing rights;

2. Unilateral actions, conflicts and incidents of a political, economic and military nature which could result from the installation of platforms and capacities for the exploitation of natural resources and the ocean floor's wealth;

3. Incidents which from time to time occur over ocean transport of the seabed resources and of oil and petroleum shipments (tankers, pipelines);

4. Incidents over national sovereignty when enacting protection measures against pollution of the seas, discarding of harmful wastes and residues either on the seabed or the sea surface.

5. Military installations or military-naval forces and communications could of their own, and especially as a consequence of previous conflicting situations, transform into a direct cause of international crisis and dangerous war, incidents, endangering the peace in the world; this is even more so since nuclear weapons are already a component part of the arsenal of the military-naval forces of the most industrialized States in the world.

Is the analogy with previous conflicts in the history of human civilization actually inevitable in this new era of the advancement of science and technology and of the destructive weapons at the disposal of the great Powers? Is it necessary to have the one-time forms of colonialism—which have already been condemned and are rapidly vanishing from the face of the earth—replaced by new forms of technological colonialism?

The consciousness of the international community, irrespective of the differences between the big and small, rich and poor, powerful and weak, about the global link in common destiny and interdependence has reached such a level that it is possible to prevent this analogy of the repetition of conflicts.

The development of an international community and of common interests binding it together—in this the United Nations, together with its system of organizations, is rendering a not insignificant contribution (despite every criticism and dissatisfaction)—are making it possible to achieve within a foreseeable period of time, positive results in the area of the regulation of the entire issue of the peaceful exploitation and use of the natural resources and riches of the seabed and the ocean floor.

A number of conditions, however, constitute the essential minimum which must be recognized and achieved if there is to be an international agreement in this area:

1. Unilateral actions to determine whatsoever national or international jurisdiction and rules of behaviour must not only be avoided, but definitely abandoned, as inadequate and inappropriate methods of solution;

2. The approach to this entire complex of problems should not be based, as has been the case during the traditional approaches, only on particularistic or egoistic interests of individual States (the concept of "common heritage" is the only positive answer to the needs of the international community);

3. Interests of great military Powers and highly technological advanced States should not figure prominently and be given priority. Such approaches in the past were the main source and cause of the conflicting situations and wars, because, in the final analysis, the interests of great Powers are mutually exclusive and irreconcilable.

4. In the interest of harmonious development of the entire international community, it is vital to take into account, and even give priority to, the special interests and needs of the developing countries—countries which lag behind in the exploitation of the existing natural resources and in availing themselves of the achieved levels of science and technology, due to former colonial domination and exploitation.

These are vital prerequisites to achieving a durable and effective international agreement, which shall not rest upon only temporary advantages already acquired, but shall proceed from the essential interests of humanity as a whole.

Another dilemma—the absence of a just and lasting international agreement—must be set right, since this vacuum is replete with dangers of new ominous conflicts. The absence of an agreed and applicable solution is conducive to a new era of conflicts and disagreements precisely at this stage in the development of human civilization which offers every possibility of having colonialism, armed conflicts and wars definitively relegated to the museum of world history.

Anton Prohaska, Mission of Austria to the United Nations

Monday afternoon, June 21

In making my contribution to the panel discussion of "The Consequences of Nonagreement," I should like to start out by thanking Senator Pell for speaking about the forthcoming Vienna Conference of 1973, which reflects his kind feelings for my native city. Personally, I would not go so far as Senator Pell because the General Assembly has not yet decided on the precise dates and in particular on the venue of the next Law of the Sea Conference. It is true, however, and I state this for the sake of completeness, that the Austrian Government has shown an interest in the possibility of inviting the conference to Vienna; although in the present circumstances it was considered too early to take a formal initiative. At the same time, I am of course aware that the term "A New Geneva Conference" printed on the program of our conference here is used mainly for the reason that it is a good shorthand way of immediately conveying the concept of the four principal existing codifications of the law of the sea.

The new Law of the Sea Conference which has been decided by the United Nations, although not as a reviewing conference, will cover most of the issues which are governed by these Conventions. Moreover the Conference will have additional important tasks, the most significant of which is probably the establishment of an equitable international regime including an international machinery for the seabed and ocean floor beyond the limits of national jurisdiction as well as the delimitation of the area for which the regime is to apply.

To assess the consequences of nonagreement on all these subjects as has been done by Professor Brown appears to be indeed a herculean task requiring, apart from an extraordinary gift of perspective and imagination, also efforts of almost encyclopedic dimensions. The main reason for this being so is the fact that the consequences of nonagreement on each particular issue are different, and very logically so, for different countries. Indeed, Professor Brown this morning has broken down the negotiating parties of the future Law of the Sea Conference into five categories.

Past statements here in this country and at the United Nations, however, would lead one to conclude that the only group of countries whose interests are at stake at the projected Law of the Sea Conference is the group of coastal States, and that the only conflict is between the developed coastal States and the developing coastal States. These conclusions are of course not correct. The fact is that there is no homogeneity of interests on these questions in the group of developed countries or in the group of developing countries. Such patterns of common interest—if the problems under consideration were to be reviewed exclusively on their merits—could be detected more easily if one were to choose the geographic location of States as the determining factor.

In order to be able to make a substantive contribution to our discussion in the short span of time available to me, I should like to concentrate on the position and expectations of one such group of countries—the land-locked and shelf-locked States—with respect to one main element of the new Law of the Sea Conference, namely the elaboration of an international regime and machinery, and the delimitation of the area to which the regime is to apply. I would start out with a short characterization of land-locked States, trying to do so with the group of shelf-locked States at a later stage.

Within the United Nations there are 24 States which do not have coastlines, 25 with the expected admission of Bhutan during the 26th General Assembly. From among the land-locked countries outside the United Nations, Switzerland would have to be mentioned. States which are characterized by this geographic incidence do not border on the sea or ocean and have no jurisdiction over an adjacent continental shelf. For that reason they also have no possibility of extending their jurisdiction over the ocean floor, either within the framework of present conventional law or in a *de facto* manner on a unilateral basis.

These States have, however, a particular interest in matters of seabed development, and are genuinely and immediately concerned with its related problems. The basic consideration which explains the common interest, concern and expectations of land-locked countries is prompted by the principle that the seabed and ocean floor and their resources are the common heritage of all mankind, and the principle that the exploitation of the area and its resources shall be carried out for the benefit of mankind as a whole. These principles, which are embodied in Articles 1 and 7 of the Declaration of Principles adopted by the 25th General Assembly, clearly state that the benefits of ocean floor developments should accrue to all States regardless of their geographic location. The principle or concept of "common heritage of mankind" would in addition imply that land-locked countries are entitled to participate in the determination of how the seabed resources of the international area should be exploited and how the benefits obtained there would be used. The adequate framework for such a participation on an equal footing would seem to be an adequate international regime with a machinery providing for adequate representation of land-locked countries.

The primary interest of land-locked States is thus to advance and protect what has been called their right of inheritance. It is clear that under the Declaration of Principles Governing the Seabed and Ocean Floor and the Subsoil Thereof Beyond the Limits of National Jurisdiction, which proclaims that the aforesaid area and its resources are the common heritage

of mankind, the land-locked countries as a part of mankind have therefore a claim to that heritage. Their stake to that heritage would seem, however, to be entirely dependent on the success or failure of the endeavors at the projected Law of the Sea Conference to agree on an effective international regime including machinery for that area.

Land-locked States are thus in the position of those who stand to benefit from the development if the seabed and ocean floor are explored and exploited in an orderly manner within the framework of an international regime with appropriate and competent institutional arrangements to give effect to the regime and the fundamental principle of the common heritage. Here I would like to stress that any participation in an international regime would only appear to be meaningful if that regime were to apply over a substantial part of the seabed and ocean floor, over an area which would offer prospects for economic benefits.

Before going on in assessing the consequences of nonagreement on the establishment of a seabed regime and adequate limits, I should like to note—applying again the criterion of the geographic location—that there are other categories of States which share to a varying degree the position of land-locked countries, and consequently also the interests, objectives and expectations of land-locked States.

First to mention in this context are States which have only a short coastline. These States might find that an international regime extending over a large part of the ocean floor and the consequent sharing in the revenues of the international area might be preferable to an extension of their jurisdiction over the ocean floor, which could only be of a limited nature by virtue of the short coastlines of these countries.

Another category of States which have no possibility of extending significantly their jurisdiction over the seabed are some of those bordering internal or marginal seas. Their claims or extensions of jurisdiction would be met by similar claims of other States bordering the same internal or marginal sea. This category of States might, therefore, also find that an international solution providing for the establishment of a strong regime extending over a large part of the seabed and ocean floor might be preferable to unilateral extensions of jurisdiction or the adoption of so-called broad limits.

The stake of land-locked countries and shelf-locked countries which account for a third of the membership of the United Nations seems therefore also dependent on the success or failure of the Conference in respect to limits. If the forthcoming Conference fails, it is the land-locked and shelf-locked States which will lose their inheritance in the first place.

The developing coastal States with extensive shelf areas, and those with limited shelves but which front an open sea, have the option of making extensive unilateral claims to the seabed and ocean floor. While they may not have the technological know-how to exploit the resources of these areas, they could derive benefit by granting bases and concessions to foreign corporations of developed countries. The shelf-locked and land-locked States have no such option.

The particular interest of land-locked and shelf-locked countries in the delimitation of the area beyond national jurisdiction is therefore evident; the larger the area under the jurisdiction of the coastal State, the smaller the area remaining where land-locked countries might expect to share on equal terms in the "common heritage of mankind." They are for all practical purposes excluded from participation in the exploitation of the living resources of the sea, in territorial waters, in adjacent waters and fishing zones; and, moreover, they have no access to the resources of the continental shelf. They are therefore particularly interested in the possibility of benefitting from the marine resources of the area beyond the limits of national jurisdiction.

It would seem obvious that any reduction of the "common heritage" by extension of national jurisdiction reduces, by the same act, the area which the land-locked countries are supposed to share. The same is true for most of the shelf-locked countries. In this context I might recall the findings of the former Seabed Committee of the United Nations and its predecessor, the *ad hoc* Committee, according to which marine mineral resources are not evenly distributed over the ocean floor. Indeed the parts of the seabed of greatest potential wealth, at least for the years of the relatively immediate future, are those closest to the coast, the submerged parts of the continents and, so far as the international area is concerned, the part between the 200 meter isobath and the deep ocean bed, where hydrocarbon deposits are expected to exist.

It is therefore clear that the extension of the jurisdiction of coastal States would reduce a critical part of the area of the common heritage. Indeed, it could be stated roughly that in the same way that the principle of the freedom of the high seas would be meaningless for land-locked countries if access to the sea is not granted to them, the principle of common heritage would appear meaningless if unilateral extensions of jurisdiction by coastal States became the rule.

To sum up, it would seem that nonagreement at the next Law of the Sea Conference on an international regime, including machinery and the delimitation of the area, would entail for the group of land-locked and shelf-locked States a loss of inheritance. The consequences in this respect would appear particularly damaging for the developing land-locked and shelf-locked countries which would hardly have a possibility to recoup this loss without compensation within an international framework.

Radha Ramphul, Ambassador to Mauritius to the United Nations

Monday afternoon, June 21

First of all, I am grateful for the invitation to take part in this discussion on the consequences of nonagreement in relation to the new era of the law of the sea. I hasten to add that I have come not to lecture, but to learn.

Second, I am very happy to see here so many of my colleagues from the United Nations. I am particularly happy to see some African faces. Third, I would like to say that the views I am expressing are my own views, and they are not necessarily those of the government of Mauritius nor indeed of the United Nations African group.

One can, of course, speak for hours on the consequences of nonagreement. On the other hand, one can deal with the subject in a fraction of a second by throwing up one's arms into the air and shouting a five-letter word, CHAOS. But I do not believe there will be chaos. With so many intelligent, internationally-minded, responsible professors, commissioners, diplomats, lawyers, so many people of goodwill dealing with this subject, there can be nothing but the best prospects for agreement. Our distinguished Secretary-General of the United Nations, U Thant, often reminds us that the organization must think in terms of two allegiances: first, a national allegiance, and second, allegiance to the international community. If you believe in this concept, and I am pretty sure we all do, then I have no doubt whatsoever that we shall eventually be in a state of cooperation and understanding, speak in peace together, and arrive at a just solution and set of rules acceptable to all of the people involved.

The problems of the freedoms of the seas, continental shelf, seabed and ocean floor beyond the limits of national jurisdiction are many. They are of great concern not only to coastal States but also to landlocked States; nor indeed are they of concern only to existing member States of the United Nations. I frankly cannot see how the Conference of 1973 can arrive at a just and lasting international agreement in the absence of representatives of over a quarter of the world's population with vital interests in sea matters. I am of the opinion that there can be lasting agreement only if there is universality of representation at the 1973 Conference. I am inclined to believe that it is in the special interests of those who are seeking an early agreement to secure universality of participation at the 1973 Conference.

Before speaking of the consequences of nonagreement, allow me to analyze very briefly some of the problems facing us.

There is today no general international agreement on the maximum permissible breadth of the territorial sea. For some time now there has been a tendency for States to extend their national jurisdiction from the old range of the cannonball of three miles to 200 miles, mostly for economic reasons; but there are also security reasons because of the growing arms race and increasing military use of the ocean. However, in all fairness, one should accept the fact that the world community as a whole has so far proved itself very responsible, and has acted with great restraint, as the following figures will show.

On February 24 there were no less than 27 States claiming only three miles of territorial sea; 4 States only four miles; 11 States six miles; 2 States, ten miles; 51 States—the largest amount—twelve miles; 1 State, fifteen miles, one State, eighteen miles; 21 States, twenty-five miles; 1 State, fifty kilometers; 1 State, one hundred and thirty miles; 7 States, two hundred miles.

There can be no doubt that all these States have very solid arguments and reasoning behind their respective claims. As the group of countries claiming less than 12 miles includes 95 of the 127 United Nations members, it seems likely that the Conference on the Law of the Sea which was called by the 25th General Assembly will call for reasonable limits, providing satisfactory arrangements can be negotiated which provide certain coastal States preference for high seas fisheries exploitation beyond 12 miles, or any other reasonable limit that may be agreed upon; as well as certain controls with respect to the prevention of marine pollution.

Such agreement would be further contingent upon the establishment of a satisfactory international regime to govern exploration and exploitation of seabed resources beyond the limits of national jurisdiction. The regime should provide that developing countries, in particular, would have an important role to play in the development of the seabed, in addition to being recipients of the benefits to be derived therefrom.

If the foregoing can be agreed, there seems to be no reason why any country should insist on an extensive territorial sea limit. If the major maritime powers agree to an equitable sharing of the resources of the oceans, taking into consideration the special position of coastal and developing States, there seems to be no need to insist on jurisdictional claims over ocean space which would inhibit freedom of navigation.

International straits are not a matter of direct concern to many countries. However, the general extension of the territorial seas to even twelve miles will close over 100 straits which at present contain a high seas passage. In the absence of satisfactory arrangements for the free passage of ships and aircraft through or over these straits for peaceful purposes as opposed to war purposes, traffic might have to be diverted; and if this happens, freight costs could rise. This could affect the costs of imports and make exports less competitive. Thus, all nations have an indirect interest in insuring that a regime for international straits is negotiated which meets the needs of the maritime nations as well as coastal States.

The basic conflict of interest on fisheries, which the 1973 Conference aims to resolve, is between countries which have important distant water fisheries and countries which fish only around their own coasts. Most, but not all, of the former group are developed countries; and most, but not all, of those with only coastal water interests are developing countries. Major examples of countries with distant-water interests are Japan and the USSR, whose expeditionary fleets now fish all the oceans. Opposed to them are countries like Iceland, Chile and Peru, which have very rich fisheries on their doorsteps on which they rely very heavily for their economic well-being. They naturally want a convention which will endorse their claims to extensive jurisdiction over the resources within striking distance of their coasts. (In the case of the South Americans, 200 miles is claimed.) The distant water States want endorsement of their view that maximum fishery limits should be relatively narrow (say, 12 miles) so that they can go on fishing close into the shore of these countries. The distant-water States are, however, likely to concede a degree of preference to coastal States in the stocks on which they depend, as the price of agreement on the 12-mile maximum to exclusive jurisdiction. I have no doubt that there is more room for negotiation, as long as political and economic realities are thought of.

Finally, fish are today the most valuable resource beyond the limit of national jurisdiction. Thus they are important to all countries. It will be necessary to assure through international agreements that fishery stocks are exploited in a manner which will result in the maximum benefit to mankind as a whole. This means international management and conservation with appropriate standards to ensure efficient utilization of fish. This great source of protein must not be depleted, but harvested in ways that will result in its increase for the benefit of all mankind.

Exploration and exploitation of the seabed is a new concept. Most countries are only beginning to become aware of the technical possibilities in this respect. Further, most of the capability to exploit seabed resources resides in the developed countries and their industrial concerns. The growing need for energy resources, such as oil and gas, and other minerals such as copper, will make the seabed ever more valuable. Clearly what is needed is an international regime which will encourage exploration and exploitation and at the same time protect the interests of all nations in the international seabed area. The establishment of an international regime is of particular importance for land-locked States which would not otherwise be able to realize any benefit from the exploitation of seabed resources.

It must be recognized, nevertheless, that coastal States have a special interest in the seabed resources off their shores. Accordingly, as the deep seabed has historically been regarded as an international area, a division must be made between that part of the seabed which would be subject to coastal State jurisdiction and that to be under international control.

The 1958 Geneva Convention on the Continental Shelf provides that the "continental shelf" over which a coastal State exercises sovereign rights for the purpose of exploring and exploiting its natural resources is the

> seabed and subsoil of the submarine areas adjacent to the coast, but outside the area of the territorial sea, to a depth of 200 meters or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas.

According to one school of thought, the advance of technology seems to have made this definition inadequate; political disputes and possible international conflict could result over differences in its interpretation. Others say it is clear and precise enough. Therefore, it is perhaps wise to have another look at the definition of the limits of national jurisdiction over the seabed. Contrary to the assertions of certain countries (particularly some Latin American countries), one cannot adequately develop a regime for the exploration and exploitation of the seabed beyond the limits of national jurisdiction without defining the area to which it is to apply. Any regime will necessarily depend upon the area which it is to govern and the types of resources which will be exploited.

The seabed has traditionally been described in terms of water depth, and the resources in and on the seabed are normally located in accordance with its geological contours. It has been noted that the 200-meter water depth is the average depth worldwide at which the continental shelf curves downward into the continental slope. All exploitation and most exploration of seabed resources have occurred landward of the 200-meter water depth to date. The advance of technology may well demand that 500-meter limits be set.

Beyond the depth of 200 meters there is a question as to the extent of coastal State seabed jurisdiction. On the one hand, coastal States will want to obtain certain rights with respect to resources on the continental margin, where scientific evidence indicates most oil and gas reserves occur. On the other hand, the exploitation of these resources will probably produce in the near future the lion's share of revenue benefits accruing to the international community through an international regime. It is important, therefore, that any international seabed regime provide for an equitable sharing of these resources between coastal States and the international community, whether by an intermediate zone arrangement or otherwise.

In the interests of making my statement short, I shall omit speaking about preservation and such, and list what I would consider to be the consequences of nonagreement at the 1973 Law of the Sea Conference.

First, the deprivation of landlocked States and coastal States without large shelves of any share in the ex-

ploitation of the seabed. The rich will get richer, the poor will get poorer.

Second, legal uncertainty regarding exploitation of the deep seabed beyond the shelf, and consequent inhibition of commercial operations and/or conversely unruly proliferation of operations giving rise to conflicts.

Third, multiplication of unilateral assertions of jurisdiction.

Fourth, inhibition of commercial navigation by a variety of coastal State regulations.

Fifth, consequent uncertainty and expense for exporters, importers, shipowners, and shipbuilders. Even a 12-mile territorial limit will close over 100 straits.

Sixth, political and possibly military conflict regarding navigation, universal exploitation, and fishing in areas of disputed jurisdiction.

Seventh, over-fishing in some areas, resulting in lasting damage to world food stocks.

Eighth, under-fishing in other areas, i.e., waste of existing renewable resources.

Ninth, non-release of scientific research data and knowledge of major developed States to the detriment of developing States.

Tenth, a move away from *Pacem in Maribus* and toward an era of deep-sea piracy, economic imperialism, the laws of the jungle, the survival of the fittest, and, as always, so much to the disadvantage and detriment of poorer nations of the world. Let us hope that selflessness, sanity, and a spirit of international cooperation will prevail.

P. V. J. Solomon, Ambassador of Trinidad and Tobago to the United Nations

Monday afternoon, June 21

In considering the consequences of nonagreement, we must first determine what it is hoped will be achieved by agreement. It would occur to me that any agreement on matters connected with the seabed and ocean floor beyond the limits of national jurisdiction must be based on the declaration of principles accepted by the General Assembly. Paragraph 2 of Resolution 2749 of November last year stated, as a matter of fact and not conjecture, that there is an area of the seabed and the ocean floor and the subsoil thereof beyond the limits of national jurisdiction, the limits of which are yet to be determined. The question that now arises is whether this affirmation is to have effect as part of the declaration to be accepted by the entire community or whether, in the absence of agreement on a regime, it should be abandoned altogether.

It seems clear to me that the existence of the area is not dependent on agreement with regard to the regime to control the area, so that nonagreement should not affect the status of what we now refer to as the international zone.

Paragraph 4 expresses the conviction that the area should be used exclusively for peaceful purposes. This, it would seem, could not possibly have the binding force of law, and in the absence of agreement some other means would have to be devised if any part of the area is to be reserved exclusively for peaceful purposes. When we consider the difficulties we have experienced in getting this particular phase included in any sort of declaration, we can expect that a great deal of diplomatic activity and much hard bargaining will have to be undertaken before this objective is achieved.

Paragraph 1 of the same declaration states emphatically that the areas to which we refer, as well as its resources, are the common heritage of mankind. It doesn't say, "*shall be* the common heritage of mankind." It says the area and its resources *are* the common heritage of mankind. In other words, it is a declaration of a fact which does not depend on any further agreement, and therefore has the same status as Paragraph 2 to which I have already referred; it then should have the binding force of law. Unfortunately, international law, unlike municipal law, is not made by an international parliament, and unlike a municipal law cannot be enforced by an international police force. Although we may accept this as a fact it unfortunately cannot be enforced in law.

In the absence of agreement then, it seems to me that the principle would be honored more in the breach than in the observance.

Paragraphs 2 and 3 of the resolution follow naturally, once we accept the principle of heritage, whether or not there is agreement on the regime. No one would have the legal right to claim or exercise sovereignty or any other rights in respect of any part of the area or its resources. Here again, it is obvious that unless you can enforce a law, you cannot expect people to obey the law.

All the other paragraphs are really guidelines for the creation of the international regime, and in the absence of agreement on the regime, the position remains wide open. The hope that States operating in the area would act in accordance with applicable rules of the law and that in the exploitation of the area States shall permit national cooperation and scientific research—all these remain no more than pious hopes in the absence of agreement. It would depend entirely on the particular situation existing at any time, and the amount of pressure which can be exerted on any State or group of States to limit its activities in any way. In other words, the fear expressed by those who say that in the absence of a strong regime exercising international control, the area and its resources will be up for grabs and be subject to colonization, would become a practical and ever-present reality.

On the question of pollution and conservation, it is likely that States in their own interests will realize the need to formulate some rational program and lay down acceptable guidelines to avoid permanent or irreversible damage to the environment. But as far as the rights of coastal States are concerned, it is doubtful that any firm understanding will be arrived at to give protection to the small or less developed countries, even though Canada, the United States and the Soviet Union will no doubt continue to take steps to enforce their own laws and enact their own legislation to this end. Damage and liability are matters which for the most part can only be enforced by the strong against the weak.

The important problem of the training of nationals of developing countries in science and technology would be left squarely in the laps of the United Nations. I mention this only because at all the meetings of the Seabed Committee, my own little country and some others urged very strongly that UNESCO should undertake to organize a program of training for nationals of underdeveloped countries in all forms of marine science and technology to prepare for the day when the regime will come into being, and States would then be able to participate effectively in the regime. Although the results of nonagreement may not exactly constitute chaos and anarchy, it is not to be expected that too much consideration will be given to the rights of smaller States and landlocked countries under such circumstances.

Let us now consider the question of limits and the draft treaty for the proposed Conference of the Law of the Sea. Both of these would be severely affected by failure to reach agreement. The 200-meter isobath does not at present enjoy much support, and the exploitability criterion is too vague and imprecise to be seriously considered. More support seems to be given to the geomorphological principle, but this is by no means universally accepted. Those South American countries which have practically no continental shelf are claiming a 200-mile limit, some of them for complete sovereignty, others for fishing. Then there is the archipelago principle. These are all factors to be taken into account. Some countries feel that even under the umbrella of an international regime there is room for regional arrangements.

This morning we heard reference to the Philippines, Hawaii, and the Aleutian Islands. Another such instance is the Caribbean. In fact, the Caribbean is one area where both the archipelago principle and the *mare clausum* concept are particularly applicable if only in modified form. One only has to look at the map. There you see the complete picture of the Caribbean Sea—Venezuela, Trinidad and Tobago, the Windward and Leeward Islands, Puerto Rico, Dominican Republic, etc. almost forming a complete ring around the Caribbean Sea. This concept of *mare clausum* is being considered. If there is no international regime, it is more than likely that countries with this sort of geographical formation will press for this arrangement.

In the absence of a regime, I do not think there will be a massive and immediate grab for wider territorial limits; but particular developments will determine which countries desire to expand their territorial jurisdiction and how far. There are rapid changes taking place in scientific knowledge in the military and economic fields, and it is certain that these changes will determine whether or not certain countries will expand their limits. It may very well be that advances in scientific technology will prove to many States that the expansion of their territorial sea will not be to their advantage. In any case, those States who have already expanded their territorial limits in the absence of an international regime can never under any circumstances be persuaded to reduce them.

Some of those who have accepted the principle of a new Conference on the Law of the Sea in 1973 are showing a great unwillingness to reopen or even consider existing Conventions at this Conference.

Dr. Brown, in the introduction to his very excellent paper this morning, made a couple of quotations which I would like to refer to. One is from a policy statement on the 23rd of May, 1970 by the USSR delegate. I quote:

> We do not believe it to be the task of the Conference to break up the international legal order that has matured through long historical development and forms the basis for the use of the world's oceans by the States. Attempts to revise that regime, which was embodied in the Geneva Conventions, and to replace it with some new regimes, could seriously damage the development of international cooperation in the use of the world's oceans.

It seems to me that that attitude is based on a misconception. There is nothing sacrosanct about any law or treaty so that it cannot be revised by agreement. The idea that there can be no revision or even reconsideration of existing Conventions is based on the assumption that the world has remained still in the last decade or so; that nothing has changed, economically or scientifically. Above all let us not expect that a large number of States which have come to independence in the last decade and had no say in the framing of the Conventions on the Law of the Sea, will accept these Conventions whether or not they are for their own political advantage. It may be they will consider that many of them or most of them or all of them should be operative in 1970 as they were in the 1950's and 1960's but the fact remains that conditions have changed and therefore there is need for review even if the review should result in retention of the *status quo*.

So, in the absence of agreement on the new Conference on the Law of the Sea, many of the existing Conventions would remain applicable; but there have been so many additional factors, as I have mentioned, that serious considerations would have to be given, even by those States which accept them, to think about

a new Convention of the Law of the Sea, if not in 1973 then in a subsequent year.

The creation of a zone of peace, of neutral zones, the banning of weapons of mass destruction from the marine environment, all of these call for consideration.

To sum up, I think that if the Conference should result in nonagreement, many of the norms which we now accept and which we hope will be implemented will be honored more in the breach than in the observance. There will be a new era of colonialism on the seabed; there will be tensions among nations in regard to fishing and with regard to security; research will be hindered; pollution and things like that may come in for some consideration as a matter of interest on the part of the coastal States. But certainly I think that whatever has happened, nations will agree ultimately and we will have a new Conference on the Law of the Sea some time in the future.

Discussion

Monday afternoon, June 21

Oxman: I just wanted to reassure Ambassador Solomon with respect to the following quotation of two sentences from President Nixon's statement of May 23 of last year. They are as follows: "The startling fact is that the law of the sea is inadequate to meet the needs of modern technology and the concerns of the international community. If it is not modernized multilaterally, unilateral action and international conflict are inevitable."

deSoto: My name is Alvaro deSoto. Mr. Christy, you said that you found that Mr. Oxman was in error on almost every point. That is a very tantalizing statement, and I wonder if you would elaborate on it.

Christy: I am not sure that it is appropriate for me to expand it. Mr. Oxman asked me afterwards, how could I disagree with him when he simply asked questions. The questions, however, were phrased in such a way as to reveal certain points of view—and it is with these that I have some disagreement. However, my comments are not really in keeping with the subject of the afternoon or the morning's discussion; nor should I, as chairman, interject my own points of view. But the temptation is such that I will give just one brief example of disagreement.

Mr. Oxman questioned whether it is wise to regard fisheries as a source of revenue, and then indicated, by questions, that extensive limits would lead to reductions in protein sources. Extensive limits, however, would not necessarily lead to a reduction in global protein resources, and it does not at all bother me personally that the fisheries should be regarded as a source of revenue. In fact, I think it is essential that they should be regarded as a source of revenue because it is the only way we can maximize the production of total quantity of food as a whole. If it is regarded simply as a protein source, and assumed that the maximum yield must be sustained from that resource at no matter what cost, then protein is likely to be reduced because capital and labor resources are diverted away from other kinds of protein production.

The basic kind of disagreement I have with Mr. Oxman is in his concept of property and whether or not extensive limits would in fact be damaging to world community interests; but as I said, I am not sure it is quite appropriate for me to speak either as chairman or on a matter which is somewhat peripheral to the subject for today.

Caflisch: I am Lucius Caflisch from the Woodrow Wilson International Center for Scholars, Washington, D.C. I would like to offer one modest comment on a matter which has hitherto been generally neglected in the debate on the future Law of the Sea. I refer to the question of compulsory international jurisdicion. Everybody appears to be very enthusiastic about creating an international seabed area and setting up yet another international organization. It is of course quite true that any effective international regime of the sea would require an effective international agency. The effectiveness of such an agency, however, would depend upon the existence of an effective international administration endowed with far-reaching powers. This, in turn, pre-supposes the existence of an effective international jurisdiction. The existence of such a jurisdiction is assumed as a matter of course in the Nixon proposal. Yet the willingness of States to submit to such a jurisdiction appears to be most doubtful, to say the least.

Unfortunately the practice of nullifying the compulsory jurisdiction of the International Court of Justice by crippling reservations is anything but obsolete. Moreover, only a few States—most of them very small—have become parties to the Geneva Protocol for the compulsory settlement of disputes appended to the 1958 Geneva Conventions. It is my belief that without a system of compulsory jurisdiction the proposed international seabed area and the machinery to be connected with it will be largely ineffectual.

Mochtar: My comment on the concept of the freedom of the seas is that this is clearly spelled out in the Geneva Conventions. Its use in its original sense has been limited; and now the many growing problems such as pollution are limiting it still further. Another thing I would like to mention is the resource base for supporting the work of international authorities. Up until now, emphasis has been placed only on the seabed minerals as a resource base for such authorities, although at the present time the possibilities of deriving wealth from this source are highly questionable. Yet the authority may need extensive machinery with which to operate. Could we not think of expanding the

resource base to include also living resources? At least then the international authority would have a firmer economic base of operations.

Oxman: First, I would like to express some reassurance to some of the fishermen in the room. Under the operation of United States tax laws, should they discover as a result of the ideas being discussed today that there would in fact be some kind of a license tax on fishing, this would (as I recall my law school studies) constitute at least a tax deduction under the United States income tax laws.

Particularly in view of what Dr. Christy has said, I would like to point out that when I questioned fisheries as a source of revenue, I specifically noted a possible exception for fisheries research and management. Moreover, and there may have been some imprecision here, I was alluding to fisheries as a source of revenue as one looks at petroleum as a source of revenue. I wonder if it is realistic or justifiable to look at fisheries in those terms.

Christy: It should be.

Oxman: If I understand your remarks, Dr. Christy, you were thinking of revenues from fisheries not so much in terms of the use of the revenues themselves, but more in terms of a system of economic management.

Insofar as Professor Mochtar's points are concerned, I stand corrected on both of those. First, if I did not make this clear, I certainly intended to include both absolute concepts of flag State rights on the high sea and absolute coastal jurisdiction in coastal areas as up for review. Professor Mochtar is absolutely right, for example, that pollution regulation must be regarded as a restraint on the exercise of absolute freedom of the seas, and clearly one that everyone is going to have to agree upon in the common interest.

Insofar as a fisheries base for revenues for the international organization is concerned, I assume you are referring to fisheries in the waters, not only to sedentary species on the seabed. As in the seabed, where very valuable resources (namely oil and gas) tend to be concentrated in the continental margins, it is my understanding that much of the very valuable stocks of fisheries are also heavily concentrated in coastal areas. Therefore, this would be a question that we would have to submit for consideration, I think, to all of the major fishing States; not only major distant-water fishing States like Japan, but major coastal fishing States like Peru.

Christy: Excuse me. I understood that it was asked whether or not there would be a fisheries convention proposed similar to the seabed convention. I would like to hear Mr. Oxman answer that question.

Oxman: Certainly not by me at this time. There are distinctions between the seabeds and fisheries. Perhaps the most important one is that fishing has been going on for a very long time, and nations and fishermen have gotten into certain habits, good or bad, which place the subject in a different framework. I am not entirely sure that it would necessarily be practical to approach fisheries in the same way. There is one criterion for agreement regarding fisheries, for example, that is not necessarily applicable to mineral resources: that is the necessity of avoiding underexploitation of a renewable resource. I did not say that broad limits would necessarily produce this result; I think broad limits would produce this result if one gave authority over all fishing to the coastal State, and the question of permitting others to fish was allowed to become a political issue. I have spoken on this matter before. It is difficult (and I speak to some extent from my personal experience) for a coastal State to give foreign fishermen permission to fish, even for underexploited stocks.

There are all sorts of other questions that become involved in this, in part political questions, and in part a fear that some kind of historic distant water interest would be built up which the coastal State would not be able to deal with some time in the future.

McDougal: I would like to address myself to some of the remarks by Ambassador Solomon and then come back to Mr. Oxman and yourself. Lord Eldon once asked whether Tobago should be allowed to make law for the whole world. Ambassador Solomon may have been suggesting some policies that we should not permit to be made for the whole world. As I understood Ambassador Solomon, he felt that we would have chaos if the 1973 Conference failed to produce agreement. Perhaps chaos might be better than agreement which would increase the monopolization of the resources of the ocean. I don't think, however, that we will have, or do have, quite the chaos that Ambassador Solomon painted. I gather that what he means by chaos is our historic customary international law of the oceans. He pointed to two things: one, that if we did not get agreement there would be no assurance that the principle of peaceful users would be observed. It is my understanding that the United Nations Charter applies just as much to the ocean's activities as on the land masses. We have the prohibitions of Article 2(4), and various ancillary sections, that require that the oceans be used precisely in the same way that the land masses are used. I do not see what further words might add to this.

The second point was that the use of the oceans as a great common heritage of mankind requires new agreement. My understanding of the customary law of the sea is quite different. It seems to me that this law has for at least 300 years, by a few simple principles, preserved the opportunity of all people to use the oceans. It is this equality in opportunity for access and enjoyment that is the genuine heritage of mankind. It is a great paradox that the new proposals for coastal State monopolization should be put forward in the name of common heritage. One needs to make a distinction between the production benefits in the use of the oceans and the distribution of such benefits, and capa-

bilities dependent upon opportunity for access and in capabilities created by factors on the land masses. The world can not increase production by destroying equality of opportunity with respect to a sharable resource, and bestowing monopoly upon a single State or a small group of States.

This is the only quarrel I would have with Mr. Oxman's statement. When one talks about the obsolescence of the "flag" principle, he should be very careful not to mistake what he is trying to do. The function of the flag principle has been to protect the competence of the small State to get access to the oceans. International law has always subjected the flag State to laws about pollution, fishing, and so on. What the flag principle means is that the big boys can not tell the little boys whether they can go out. What is being missed in all this discussion is that there are policies of access, of freedom of access, which are indispensable to all other policies.

There are, further, a lot more values at stake here than simply the economic. We do not want to kill the goose that lays the golden egg of all these values by encouraging new claims for monopoly.

To answer Ambassador Solomon more explicitly, the present customary law of the sea was not made 300 years ago. The customary law is the living law of today. It is made by the continuing cooperation of people around the globe. It reflects the expectations of authority and control from this cooperative behavior, and it is based upon perception of common interest, not naked power. This perception of common interest is the real sanction for any law. What we need to do is to clarify our common interests in continuing to preserve this equality of opportunity in access and use, while increasing capabilities for taking advantages of such opportunities.

Solomon: In the first place, I did not say the alternative to agreement was chaos. What I did say was although the results of nonagreement may not constitute chaos or anarchy, it is not to be expected that too much consideration will be given to the rights of small countries. and that landlocked countries will be benefitted not at all. In the second place, Tobago is not making law for the rest of the world. The archipelago principle was mentioned first by somebody far more important than I. I am merely repeating it and extending it to other areas. I did refer to the Caribbean. The archipelago principle could be invoked there.

In the third place, it seems that the gentleman who just spoke is confusing what I said about the regime with what I have to say about the law of the sea. In my view these two things are distinct and separate, the regime for the international area and the question of the new Conference on the Law of the Sea. Whether the law of the sea which exists today was made in 1970 or 1370, the fact remains that there are several countries of the world today which have had no say whatever in the framing of those laws. It is not to be expected that they would accept them blindly, and there can be no offense to any of the bigger powers who framed these laws, if they were to be revised.

Christy: I recall three years ago when I made some presentations with respect to the development of seabed minerals that Professor McDougal at that time got up from the floor and referred to his apprehensions about monopoly. I think that his understanding of monopoly and my understanding of monopoly are not quite the same thing. I have the impression that by monopoly he means not a single seller of a good, but some kind of exclusive ownership of a particular resource; and I think there is quite a big difference between these two definitions. My feeling is that the freedom of the seas as applied to the use of natural resources is a fundamental anachronism. The free and open access condition is the cause of extreme degrees of waste in the use of these natural resources. It leads to a significant reduction of world values because there is no way in which access can be controlled. There is no way in which the producer can operate efficiently and effectively. It is necessary to get rid of this concept of free and open access if production values are to be increased.

The question of distribution of these values is, as Professor McDougal states, a quite separate question, and it is very important, as he says, to keep these two separate. When I say that the freedom of the seas has to go, I do not mean necessarily that the ownership has to go either to just the coastal States or to, on the other hand, a wide international community. From an economic point of view, it is not particularly important who has the right to control access just as long as someone has the right.

The question of distribution is something an economist has not very much to say about because it is a question of distribution of wealth, and there are no rational economic objective criteria which one can employ to say one nation should get this and another nation should not get this.

It is important, I think vitally important, and inevitable as well, that exclusive rights by someone or another, by some agency or another, a State or international agency, will be developed for the use of the world's resources, for fishing and for minerals. Who does the developing is one question and who gets the returns from this is another question; but unless these exclusive rights are developed, the production of values will be minimal.

McDougal: I think I am entitled to a brief reply. In the first place, let me apologize to Ambassador Solomon if I misquoted him.

You raise the more fundamental issue. If you deny this equality of opportunity, this equality of access, then somebody will get control of the resource, and somebody will be deprived of its use. It then becomes very important: who decides who can enjoy these rights and who cannot? You said from an economic point of view it makes no difference who controls or who

decides. From the point of view of a world public order in which more values than simply the economic are at stake, it makes a tremendous difference who decides who gets what, when, and how. Until you can work out some way to do this better, I do not think that you should cast aspersions upon our inherited structure; these give everybody opportunity in terms of his capability. We have here a great shareable resource, completely different from the land masses; a few simple rules of the road that work effectively to bring the capital of the world, the initiative and the skills of the world, to bear upon the production and distribution of values. You propose to destroy this simply because you say that for an economist it does not make any difference who runs the show. I think this is a clear example of why we most urgently need further discussion.

Herrington: I had not planned to get into this, but I could not resist after the last several exchanges. We hear more and more about the common heritage of mankind and what must be done to protect it. Under the present common property concept of resources of the sea, with our greatly improved capacity for taking fish, we are destroying these resources one by one. One example is the whales of the Antarctic. It is pretty clear that the present system is not working very well to protect the fishery resources from being either destroyed or depleted, and the scholars more and more are agreeing with this conclusion. Therefore I would think the first thing is to protect the resource. If we do not protect the resource, then there is not much to divide up; so how you divide it up is a secondary question. The first problem is how you protect the resource.

"Common property of mankind" is an expression being used more and more to characterize the high seas fishery resources. Last year in some of the discussions at this Conference one of the lawyers commented on this problem that when a lawyer says, "I'm not doing this for money, it's the principle of the thing," he means it is the money. I added that it was my experience attending many international conferences where governments were represented, that when a statesman got up and said, "I'm supporting this proposal in the interest of mankind," he meant in the interest of his country. I have never yet seen an international statesman vote for mankind. He voted in the interest of his country. Often the two interests coincide.

What is the common heritage of mankind, and what is good for mankind? I think it is a system or series of measures that benefit the great majority of countries. Would we not make more progress and avoid a lot of misunderstanding if, instead of talking about the common heritage of mankind, we talked about measures that would benefit a great majority of the countries? It seems to me that if we did, we would stick closer to the problem and have a better chance of getting majority support for such proposals.

al-Qaysi: My name is Riyadh al-Qaysi, and I am a counseller at the Permanent Mission of Iraq to the United Nations. My questions are directed to Mr. Oxman. I think he said that the concept of the trusteeship area is based on the thesis that this concept is a compromise between the interests of coastal States and those of the international community. I would like to ask Mr. Oxman whether it would not be more appropriate to regard the concept of a trusteeship area as a juxtaposition of national interests, rather than a compromise balance of coastal States' interests vis-a-vis international community interests.

My second question is how can we reconcile two attitudes: first that we would like to reserve as much of the area of the seabed and ocean floor as possible, the resources of which are to be exploited for the benefit of mankind as a whole; and second to envisage at the same time a trusteeship area, and thereby cut off a large portion of the internationalized area—so to speak—to the benefit of the trustee States themselves. How can we reconcile these two attitudes which are being put forward at one and the same time?

Oxman: First of all, I think the point made on juxtaposition is quite correct. Within the same trusteeship area, for certain purposes the international interests (including the international interests of coastal States) would prevail, and for other purposes the immediate interests of the coastal State would prevail. If I understood it correctly, one of the points suggested is that the coastal State in most cases has both interests. I think this is quite correct. It is not a simple matter of the coastal State versus the rest of the world. If we consider the fact that most of the world is composed of coastal States, you might as well accommodate the majority or overwhelming majority interest by just accommodating the coastal State. It is considerably more complex than that.

Let me cite one example regarding marine pollution resulting from seabed activities on the continental margin. Clearly, the United States has an interest in making sure that exploration and exploitation of petroleum is conducted in such a way as not to result in pollution. There may be certain areas of the continental margin off our coast that are particularly close to valuable beaches or have valuable fisheries above them where (as some people in New England are urging) no petroleum exploitation should occur at all, at least for the time being. At the same time, this is not an interest which is exclusively limited to our own continental margin. Our coasts can be polluted by oil spills in the continental margin off Canada, or, as I understand it, in the continental margin off our southern neighbors. Countries which are not as isolated, relatively speaking, as the United States could be seriously affected by pollution occuring off the coast of a large number of other countries. Of course, one has to take into account ocean currents as well. The basic dilemma of accommodating coastal and international interests in pollution regulation is a dilemma for most coastal States in the world.

I would like to cite the revenue problem as another example. Most coastal developing countries, and indeed most coastal developed countries, can not be sure of the precise value of the resources in the seabeds off their coast, for example, beyond 200 meters. Some of them have large continental margins that could be quite productive. Others have small continental margins; this could suggest that the area may not be very productive, at least in terms of petroleum.

With respect to revenues, the trusteeship concept (which I once called an insurance policy) combines the dual interests of the coastal developing State; first, to the extent the coastal State has some expectation of revenues from the areas off its own coast, it would get a significant share of them; second, to the extent that the idea of an international regime and common heritage means that there is going to be a significant or potentially significant pool of revenues for the use of the international community as a whole, particularly developing countries, the coastal State is assured (since we know there are productive areas in some parts of the world, including the margins off the coasts of developed countries) that revenues will be collected in which that country will share.

These are just two examples of this process of accommodating the coastal and international interests of the coastal States.

As for the trusteeship zone cutting off of a large portion of the international area, I think we have to consider the realistic alternatives. Perhaps I could draw on Ambassador Solomon's statement in which he said that there was a body of opinion which was thinking in terms of geomorphic criteria for national jurisdiction. I could be wrong, but I guess by that Ambassador Solomon means not only the continental shelf, but the continental block, including the slope and perhaps part of the rise. On the other hand off the west coast of South America, States that have very little in geomorphic terms are thinking more in terms of mileage. To use an American expression, I do not think that narrow limits—for example, a 200-meter limit—are in and of themselves "in the ball park." In other words, if one wants a pure international regime with no substantial coastal State rights built into it, one is going to have an international regime covering a very significantly smaller area than the one we have proposed; there would be complete coastal jurisdiction over the resources of substantial areas that are likely to be the most productive. Accordingly, it was our conclusion that the only realistic way to extend the real benefits of an international regime into coastal areas that are likely to be productive, particularly in terms of petroleum and gas, was to recognize a very substantial interest of the coastal State, particularly in the resources, *per se,* and in the right to determine who could exploit those resources.

Mojsov: Let me make just a brief comment concerning our thinking and opinions before the next Law of the Sea Conference. Sometimes we think about the future organization of the new seabed regime, and of the new international order and new area for the common action of international community. But we are sometimes more preoccupied with not thinking about the real basis for such a regulation, a new legal norm for this new area of common action. We are not thinking so much about the principles and the bases which should be applied for the establishment of such a new and just international regime, but we are embarked sometimes on the road to thinking about the rights and material interests and funds and taxes and money of the international machinery of the future for the nonexistent international seabed authority. We are preoccupied, as is seen in the United Nations, with our own personal or professional interests in creating a new international agency. But the road before us is a very long one before we shall find ourselves in the situation of thinking about the international agency dealing with problems of the seabed, and of having this new seabed authority.

In connection with that, let me just quote a popular saying in my country: "Don't prepare the grille before you catch the deer."

Gorove: I would like to address myself to the general content of the conference for a moment. I believe that today's program deals with the consequences of nonagreement; then tomorrow it is supposed to move on the contents of the negotiations; and then I believe the same follows on Wednesday; and then on Thursday our topic will be the prospects for agreement. It seems to me that maybe we have been putting the cart before the horse. The logical arrangement would have been to discuss first of all the issues of the future Geneva Conference, and in that context the likely contents of the negotiations, then the prospects for agreement, and finally the consequences of nonagreement.

Alexander: I would suggest that the consequences of nonagreement may not be chaos, but an agreement to continue to disagree. In other words, we may be moving into a stage of half light, the end of which may be many years away. I think one of the great losers in this will be the concept of the freedom of the seas; the word "freedom" is a dirty word now. I agree in principle with what has been said about the need for allocation and resources, but on the other hand I think it is politically unrealistic to talk about allocation without reference to how and by whom decisions on allocation will be made. I agree with the thinking of Professor McDougal that we are in for some difficult times.

The question I would like to pose to the panel, which they probably cannot answer, is: What sort of action and policies should the nations of the world adopt during what I suspect is going to be a long period of waiting? Statements such as the one made by Ambassador Pardo will be followed by other comprehensive suggestions which probably may not get adopted either. There may be some agreements possible, such

as Ambassador Solomon suggested on the seabed insofar as water depths are concerned. But many years may go by during which there is no agreement, and yet there is no chaos either, because we have not abandoned the hopes for agreement. Time does not stand still during this period. What sort of actions can the world community take? If I have to pick on somebody in particular to respond to this, I think I would ask Mr. Oxman.

Oxman: With respect to the seabeds, I would, of course, refer immediately to President Nixon's statement on the interim situation, and I want to emphasize the underlying importance of that. We have heard a variety of statements today suggesting the possibility of slippage in time of the negotiations. There will be no slippage in the development of technology. Oil concessions and oil capabilities are moving deeper and deeper into offshore areas on the continental slope. There is just no doubt about this. Given the ability, exploitation of the continental margin will continue, and coastal States, at least under the color of law, will issue concessions for deeper and deeper areas on the continental margin. Should that process continue for very much longer, our hopes for an international regime with machinery producing substantial revenues would really be completely shattered. The hard minerals on the deep seabed cannot produce the order of magnitude of revenues that petroleum can produce; we know this from our experience on land. There are a lot of countries made rich by oil; I am unaware of countries that have been made extremely rich by hard minerals, although it may help.

As far as the deep seabed hard minerals are concerned, we know the nodules are there. The technology for bringing the nodules to the surface, as I understand it, involves either a continuous bucket system or somethink akin to a vacuum cleaner. This technology is at least understood and, as Dr. McKelvey reported to the March meeting of the United Nations Seabeds Committee, is moving full apace. There is no choice but to recognize this fact.

The United Nations moratorium resolution has a critical defect in it. The defect is that coastal States under that Resolution can continue to take away what could be the common heritage simply by unilaterally interpreting the Continental Shelf Convention or, indeed, by making an extraordinary unilateral claim such as was made by one of the leading advocates of the moratorium resolution. If we are willing to face the fact that technology will continue to develop, there is a way of protecting ourselves; we can make sure that all resource development beyond the 200-meter limit during the interim period is subject to the new international regime to be agreed upon. Thus, at the least the option of a broad international regime is not foreclosed. This does not mean that States are agreeing to such limits, but it means that they are at least keeping open that option. If this is not done, States are going to make commitments which they will find it very difficult to get out of.

Insofar as the waters are concerned, Professor Alexander, I do not know that there is any real answer I could give you, except that we know that there are differing points of view, and that restraint is clearly necessary not only to preserve the options for the Law of the Sea Conference but to preserve the interests of international community. In this connection I would like to raise a question regarding Professor Evensen's remarks. I am not advocating any solution, and I am certainly not endorsing Dr. Craven's points, but I fail to understand why asserted rights of a coastal State to coastal resources can be defended with force whereas established rights of every State to make use of the high seas cannot be defended with force. If we are to respect a principle of non-use of force, which I wholeheartedly endorse, then neither the United States nor other States should be shooting machine guns.

McIntyre: It would seem to me that Mr. Oxman's comment is a realistic one, and I cannot find it in myself to produce a better one. I have really asked for the microphone to extend a little further the question Professor Alexander asked, or at least I understood him to ask. He asks what we do, what is the international community to do, until we can reach that goal of full agreement? I suppose the main thing we can do is to continue to work away to try to reach that agreement even while the situation has in it all the uncertainties in the meantime that Mr. Oxman spoke about. But on the question of reaching agreement or agreements, there is one point I would like to come back to in what Mr. Oxman was saying this afternoon, and it comes to my mind because there has been mention I think of different entities—for instance, a separate fishing convention, separate from the law of the sea and of the seabed, and separate treatment of other subjects—and it leads me to ask whether in proceeding towards a final agreement is it realistic to think of moving in that direction in a piecemeal kind of way by dealing with the whole problem in a series of boxes? I am not sure myself, but it is something I would like to hear some comment on; whether people think that moving towards agreement can be made in a piecemeal way. I should have thought myself that this might not be the best way to go about it, because the final result seems likely to have to be a package acceptable to all, and I wonder whether movement towards agreement on that final package is going to be facilitated if we try too much to tackle and settle individual facts of the problem along the way. I am simply posing a question as to how we should go about it, as to how the world should go about progressing towards a final agreement on the whole code of law for the sea and seabed.

I throw it back to Mr. Oxman because I think he had something to say about it this morning.

Oxman: I am happy to comment on it because I work for a government that had both views on the subject, as I think is well known. We originally advocated the view that it would be desirable to treat

some of the issues separately in what we called "manageable packages." I think the reasoning behind that is fairly clear from the discussion we have had today: the enormity of the undertaking is almost staggering when the importance of all of the issues involved is considered. We then changed our point of view when it became clear that different States were interested in different aspects of the problem, and they were concerned that solving one aspect of the problem before another aspect is solved would prejudice the solution of the latter.

Let me give some examples. Among the States that are concerned about the establishment of an equitable international regime for the seabeds, a number have expressed the opinion that the regime of high seas does not and never has applied to the seabeds—or at least seabed resources—beyond national jurisdiction. Were you to agree on the limits of the continental shelf without an international seabed regime, this would, from their point of view at least, open the potential threat that other States would rely on high seas theories to begin the kind of colonial competition for the seabeds beyond those limits that we discussed today. Similarly, we know that many extensions of the territorial sea have really been a response to economic pressures on fisheries. Thus I think it is unlikely that you could reach agreement on the territorial sea unless you had simultaneous agreement on fisheries beyond the territorial sea.

A possible division one might think of is to separate waters issues from seabeds issues, but again I think that comes back to the initial point I made: there would be a fear that if one were solved first, the second might not be solved at all.

Evensen: Just let me be permitted to answer Dr. Oxman. He has started a shooting war against me here. I think that we should face certain realities in these matters, and these realities are that the technological revolution to some extent has made the prevailing rules of international law of the sea obsolete. I think that it has resulted in claims and pretentions whereby States have tried to protect perhaps mainly their own interests, but perhaps also to some extent the interests of the international community. Whaling is an example. The whales of the world have been extinguished by the indiscriminate whaling practices. We are now faced with the same dangers with regard to other marine species like the seals, the cod and the salmon. My government is not interested in taking extensive unilateral measures, but I think it would be fair for us to realize that for some countries this would be of paramount importance. For instance, let me take some of the Canadian steps against pollution. As a representative from an Arctic country, I can see very well certain merits in the steps taken by Canada to prevent supertankers from polluting perhaps the whole Arctic Ocean. And my observations are directed toward Professor Craven's assertion that you should try as a superpower to enforce your might on these small countries that might have taken steps to protect vital interests of their own. Personally, I think it would be diplomatically unwise. Secondly, I think it might even prove impossible in the future to do it.

So what I want to do is to recommend the solution that we shall continue to negotiate. We should not try to fix the date 1973 as the final target date for our negotiations. We would need further general conferences and perhaps specialized conferences to solve these questions. If we take too hard and absolute steps in the meantime, we might antagonize those with whom we should reach agreement.

Mojsov: Let me say just a few words on the point brought up by our distinguished Norwegian colleague. We discussed the problem of what we should do, what would be the consequences, in case of either nonagreement at the 1973 Law of the Sea Conference, or if this Conference should not take place at all in 1973. It is clear now only that we have not yet been able to arrive at an agreement to have this Conference in 1973.

People are already blaming the United Nations Seabed Committee for this failure. This blame is sometimes based on the size of this Committee, and on the representation on it of the small States which have their incomprehensive fears about the urgent needs of the great and technologically advanced powers. I must assure you that this blame does not lie with the Seabed Committee of the United Nations. We who are the members of this Committee are there, not looking at these matters in terms of a neutral approach to the future needs of mankind; we are there as the representatives of our governments, and we express the views of our governments. So we should lay the blame for failures now or in the future on the absence of the necessary political support by individual States toward a new international codification of the rules concerning the law of the sea.

On the eve of the end of the 25th session of the General Assembly, there was a new political view suddenly expressed by the most important member States of the United Nations. This was the Declaration on the Principles of the Peaceful Uses of the Seabed and Ocean Floor. It was because of support from the major powers that we could reach agreement on the text of this Declaration. So if we are seeking to lay blame now and in the future for certain failures and nonagreements, we should blame our governments, particularly the governments of the great powers, for this absence of agreement. If we do not yet have a definite date for the Conference, that does not mean a complete failure. We need time for negotiations. We need time to supplement this new area of international cooperation, and we cannot do this in a fixed time limit because of the opposition of certain major powers. So I would like to support the already expressed view that if we do not have an agreement on a date for the Conference, this will not be a failure. We shall continue to negotiate more in the future, and I am sure that if not in 1973, then in one of the fol-

lowing years, we shall finally come to an international agreement.

Oxman: I must respectfully express my apprehensions regarding these points. In my opinion, the likelihood of reaching an agreement that is significant is declining. Moreover, many of us working in governments and pressed by competing demands for our time know how we somehow manage not to focus on an issue in depth until we are forced to. I do not think the "forced to" in this negotiation will ever mean more than two years before a conference. In other words, if we hypothesize or permit ourselves to hypothesize a 1980 conference, we will not really focus on or give the necessary priority to this issue until 1978.

I have already made my remarks on what is happening in terms of technology. The options for agreement which are open to us in 1978 will be much more narrow than the options which are open to us today.

I also have no particular desire to speak for the position of all great powers on the subject. As I understand it, writers in the People's Republic of China have referred to an imperialist plot by the United States and another superpower to establish a comprehensive international organization for the seabeds. I am sure this at least came as a surprise to the other superpower. If I understand correctly the statements emanating from the People's Republic of China, they reflect opposition to the idea of establishing an international regime with international machinery. It is clear that the position of the United States on this issue is quite different, and has been demonstrated to be flexible and forthcoming.

I do not wish to disagree with what Professor Evensen said, but I must say that one could use the question of a date as a substantive item in the negotiation. I feel that the United States, for one, has been subject to a situation in which other States have tried to use the issue of a date as a substantive negotiating item. This amounts to saying that unless you agree with a particular substantive position, there will be no 1973 Conference. I have to say, if I did not make it clear in my opening remarks, that the substantive position of some of these States is such that it could not, in my view, produce the kind of agreement that would be in the interests of the international community.

The time for protecting these community interests is escaping. It is far more difficult to negotiate international arrangements once States have taken and committed themselves to unilateral actions. Yet the underlying problem that Professor Evensen correctly identified is that there are events in the oceans occurring today that require action. If this action is not multilateral, it will be unilateral, and then those unilateral actions will in and of themselves operate to prevent agreement.

Ramphul: I would like to ask whether the draft of the convention of the United States regarding the trusteeship zone has the full support of the major oil companies of this country?

Oxman: We could ask some of their representatives who are here. I think in response to the particular way in which the question was phrased, the answer would have to be that there is not "full support" for a variety of reasons which are very well explained in the report of the National Petroleum Council on the draft convention. The convention was submitted as a working paper; and to the extent, for example, that it contemplates operational requirements, whether imposed by national or international authorities, what is feasible or not feasible is relevant not only to my government but to all governments, if we are all to derive benefits from seabed exploitation.

Evensen: Just one point, and that is that these problems with which we are faced are so many and so complex that even though I wish we could be finished by 1973, I do not think that this is very likely. Then I would say that it would be better to continue our efforts in a continuation of the conference in order to reach agreement. We should not draw some kind of an absolute deadline. I also feel, as one who has worked in this Committee since 1967, that there has developed an understanding and almost friendship between the representatives of the various nations; and when I made exceptions to the statements by Professor Craven, the reasons were that I feel nothing could be gained by having certain countries who might be less developed than others feel that those who are stronger in military power like the United States, or in economic power like mine, try to use some kind of blackmail toward the lesser developed countries on these questions. I do not think that would enhance the possibility for meaningful international agreement and cooperation in this field. That is why I took such a strong exception to certain remarks.

McKnight: Maxwell McKnight of the National Petroleum Council. I wish to thank Mr. Oxman for mentioning our report, a copy of which I have here. We are not wholly opposed, as Mr. Oxman knows, to the U.S. Draft Treaty. In fact we found a great deal of merit to many provisions. I think it may clarify his question if I just read briefly the conclusion that we reached in the study that we made of the U.S. draft treaty.

> It is the conclusion of the NPC that the August 3 Draft fails to provide appropriately for the interests either of coastal states or of the larger international community in three fundamental respects:
>
> 1. It would unnecessarily compel coastal states to yield their existing rights to the seabed resources of the submerged continent seaward of the 200-meter isobath, for which they would receive in return under the treaty the uncertain and ill-defined status of 'trustee' of those resources;
>
> 2. It calls for an interim or transitory arrangement lacking in necessary assurances to the po-

tential investor of the integrity of his investment made during the period of negotiation preceding the conclusion of the treaty;

3. It would impose operating conditions and financial terms applicable to licenses which would deter rather than encourage the search for and development of seabed petroleum resources in both the area of the outer continental margin and the deep-ocean area beyond.

I should point out that the entire NPC membership, while opposed to the renunciation by the United States of its rights to the mineral resources of the seabed of the submerged continent beyond the 200-meter isobath, does endorse the following five principles enunciated in the President's Statement: (1) the collection of substantial mineral royalties to be used for international community purposes, particularly economic assistance to developing countries, and the establishment of general rules, (2) to prevent unreasonable interference with other uses of the ocean, (3) to protect the ocean from pollution, (4) to assure the integrity of the investment necessary for such exploitation and (5) to provide for peaceful and compulsory settlement of disputes.

CONTENTS OF THE NEGOTIATIONS

The Military Role in the Ocean and its Relation to the Law of the Sea

John A. Knauss, Provost for Marine Affairs, University of Rhode Island

Tuesday morning, June 22

INTRODUCTION

I have noticed a tendency for discussions of the interest of the military in ocean matters to start with broad generalizations about world order, the importance of maritime trade and economic well being.[1] Sometimes the discussion never gets beyond these elements of national security. It seems to me that the totality of our discussions at this conference is on precisely this subject, the importance of the oceans to world order and economic well being. Each nation must develop its own ocean strategy. Military interests are only one input to the development of that strategy. In this paper I limit my discussion to the obvious military interests and leave other aspects of national strategy to the other parts of the program.

So there will be no misconception as to the base from which I speak, I should note I am not a naval officer; the last time I wore a uniform was 1954, when I spent two years at the end of the Korean war in Washington, mostly trying to figure out why the Navy's new mine detection equipment was not working as efficiently as had been hoped. When my military tour was up, I immediately retreated to graduate school to work on my Ph.D. I have been in academic life ever since. Nearly all of my professional contact with the Navy since then has been limited to a variety of unclassified research efforts in oceanography. Occasionally I have been involved in providing technological advice on the oceanographic effects on specific military equipment, mostly mines and mine detection equipment. I have also retained an amateur interest in the Navy's role in such subjects as the one under discussion today, but I do not wish to pose as a professional expert.

Clearly I am not such an expert. The Executive Board of the Law of the Sea Institute thought there might be some advantage to have an outsider make the initial presentation on this subject. I was volunteered.

I should finally note that I have refrained from discussing this paper with anyone within the Department of Defense or the State Department. It is a strictly independent analysis based on unclassified data readily available to anyone. I have no way of knowing whether my ideas conform in any way to those in official circles.

I plan to discuss the different roles of a navy in today's world, and guess a bit on what future technology might bring. I want also to give my opinion as to the probable effect of various proposals (such as a wider territorial sea) on the effectiveness of a navy in its various roles. Finally, I wish to speculate a bit on the self-interests of different nations as they relate to this problem of the military use of the oceans.

As to the role of the navy today and in the future, I am going to concentrate on the U.S. Navy for several reasons. The first and most important is that it is the largest and most technologically advanced navy in the world today. As nearly as I can judge any conceivable military role that can be played by any other navy can be played by the U.S. Navy. Thus, a discussion of what it does and might do would include what the other navies can and might do. The second reason is that I am not a linguist; I find it easier to acquire documentation and information about the U.S. Navy than any other. Finally, when it comes to speculating about future technology and its effects, it is desirable to take as your base the most technologically advanced navy. There is no reason, other than economics, why any coastal nation could not in time duplicate any component of the present U.S. Navy. This point is obvious but I think bears repeating at a time when we are planning a law of the sea conference which will determine the international ocean regime for some time to come. For example, the British Navy of World War

[1] MacDonald, Gordon, J. F.: "An American strategy for the ocean," in *Uses of the Seas*, ed. E. A. Gullian, The American Assembly, Columbia University, (Englewood Cliffs, N. J.: Prentice Hall, 1968).

I was the greatest fleet of its time. However, the weapons and technology found in even a third rate naval power of today would be more than a match for the British Navy of World War I. Relatively small vessels equipped with surface-to-surface missiles with homing radars would have a fire power comparable to that found on major ships of World War II. These trends, and what they portend for the future, should not be underestimated. In considering the military interests in the law of the sea I believe it is as important to consider the implications of new technology as it is the balance of power between nations.

I am going to discuss the military interest in the law of the sea in terms of the different roles the navy plays. I define four roles for the navy; nuclear deterrent, limited deterrent, general war, and intelligence gathering and covert missions. Let me be more specific. In terms of the U.S. Navy, I mean by nuclear deterrent the role of the ballistic missile submarine. I would classify the movement of elements of the sixth Fleet off Jordan in the fall of 1970 and the role of the Navy in the Viet Nam and Korean conflicts as examples of limited deterrent. World War II is, of course, our most recent (and perhaps last) example of a general war. The stationing of the electronic intelligence ship *Pueblo* off North Korea is one example of the type of activity that one would classify under intelligence gathering and covert missions.

NUCLEAR DETERRENT

Ballistic Missile Submarine

The U.S. Navy has the largest and most advanced nuclear submarines. Each carries 16 Polaris missiles. Polaris has about a one-megaton warhead and has a range of up to 2,500 miles. The Polaris submarine remains submerged from the time it leaves port until it returns from its patrol some 60 days later. Advanced bases are maintained in Guam; Holy Lock, Scotland; and Rota, Spain. These submarines can travel in excess of 30 knots. They receive radio messages by trailing an antenna close to the surface, but cannot transmit without getting at least an antenna out of the water. They have an excellent inertial navigational system.[2,3] A Polaris submarine can maintain position with sufficient control so that the accuracy of the missile is not strongly limited by the uncertainty of where the submarine is at the time of launch.[4]

Several submarines are being refitted for the Poseidon missile, a multiple, independently targeted, re-entry vehicle (MIRV) capable of carrying 10 weapons in the 50-kiloton range to separately programmed targets. The range of the Poseidon missile is somewhat greater than that of Polaris. Thirty-one of the Polaris submarines are scheduled to be refitted as Poseidon missile launchers.[5]

In the future is the so-called Underwater Launching Missile System (ULMS) capable of sending Poseidon-type missiles some 6,000 miles. A major research and development program on this system has recently been launched.[6]

The U.S. is not the only ballistic missile submarine fleet. The United Kingdom has, and France will soon have, four ballistic missile submarines apiece, each carrying 16 Polaris-type missiles. The People's Republic of China reportedly has one submarine, carrying three missiles of limited range. The USSR may have even more submarines than the U.S. capable of carrying ballistic missiles, but the number of missiles per submarine is fewer and the missile range is less.[7] A recent edition of *Janes Weapon System* has estimated that the number of deployed submarine ballistic missiles of the United States exceeds that of the USSR by about four to one, but it also noted that this ratio is being rapidly reduced.[8]

The missile launching submarine is a very important part of this country's nuclear arsenal and it seems likely that its relative importance will grow rather than lessen. Its great advantage is that as of today, at least, it is almost impossible to continuously track a submerged submarine.[9] The uncertainty of knowing where the submarine is at any given moment is its single most important feature. The increasing accuracy of the ICBM's, the advent of MIRV and the general pessimism about building a reliable ABM screen have brought some experts to the opinion that future missile development will rely even more heavily on mobile platforms.[10] Fixed platforms can be sought out and destroyed. Attempts to develop mobile launching sites on land using railroad cars and trucks have been abandoned in the United States for political as well as technical reasons.[11] Although some surface ships have been outfitted for nuclear missile launching, it does not appear that surface ships are being seriously considered at present as a major part of the U.S. nuclear strike. They are simply too vulnerable to counterattack.[12]

In this light, I think it is interesting to consider the proposed Seabed Arms Control Treaty. This treaty

[2]These and other details of the U. S. Polaris submarine fleet can be found in recent editions of *Janes Fighting Ships* and *Janes Weapon System*, ed. Raymond V. B. Blackman, (London: *Janes Yearbooks*).

[3]Neville Brown, *Nuclear War* (New York: Praeger, 1964).

[4]Herbert York, "Military Technology and National Security," *Scientific American*, August, 1969.

[5]*Op. cit.*, (n. 2).

[6]*Ibid.*

[7]*Ibid.*

[8]*Janes Weapons Systems*, 1970-71, p. 133; *op. cit.*, (n. 2).

[9]A good summary of the technical problems of pro and anti submarine warfare, as well as review of state of the art technology in undersea warfare is given in Chapter 3, "The militarization of the deep ocean and the seabed treaty." *SIPRI Yearbook of World Armaments and Disarmaments, 1969/1970.* (New York: Humanities Press, 1971).

[10]*Op. cit.*, (n. 4).

[11]*Ibid.*

[12]See, for example, discussion by Vice Admiral Sir Michael P. Pollack, The Progression in Submarine Warfare—*Janes Fighting Ships, 1969/1970, op. cit.*, (n. 2).

will outlaw all nuclear weapons and other weapons of mass destruction from fixed installation on the seabed beyond the limits of the territorial sea and contiguous zone. My reading of present military thinking would indicate that this agreement required few concessions from either side. If all the advantages in the ocean are with the mobile platform, why worry about outlawing fixed installations? Similarly, known fixed installations on the seabed beyond national jurisdiction are more easily subject to countermeasures. Thus, it would appear that the United States and USSR have agreed to outlaw something that neither was seriously contemplating building.[13] I doubt it will be as easy to reach agreement on limiting other forms of military uses of the ocean.

Submarine Detection

The other side of the nuclear deterrent problem is detection. The missile launching submarine's only tactical advantage is its undetectability. If submarines were as easy to track as surface vessels, it is doubtful if they would have any role in the present United States-USSR nuclear detente. The land-based, fixed installation ICBM, such as the Minuteman, would appear to have the advantage over the Polaris submarine on several counts including ease of communication from command headquarters and expense (both in dollars and in manpower).[14] The Polaris advantage lies in its comparative invulnerability to attack.

The primary means of submarine detection is by underwater sound. All long-range detection (more than 100 miles) is done by listening (passive sonar).[15] Echo-ranging equipment (active sonar which is the underwater acoustical equivalent to radar) is carried aboard submarines and surface ships. It is used for closing in on a target and for aiming weapons. Echo-ranging from fixed locations is possible. For example, it may be used effectively in narrow passages through which submarines must pass. It is even possible to imagine that large active systems with much longer ranges might be developed in the future for use from fixed positions in the open ocean. Experimental equipment has been built.[16] However, so far as I am aware, all present operational long-range detection systems are passive and are built on the principle of detecting the sounds emitted by the submarine.

For maximum ranges, such listening equipment must be in deep water. Sound travels very well in the deep ocean. For example, a sonar off Bermuda detected the sound of a 300-pound charge of TNT exploded near its antipode off Australia.[17] One of the reasons for the efficiency with which sound is transmitted is the existence of a deep sound channel which focuses sound energy. The depth of the sound channel varies continuously from near the surface in high latitudes such as off Norway to depths of 2,000 meters off Portugal. The average depth of the sound channel is deeper in the Atlantic than the Pacific.[18] In the case of the shot heard round the world, both the explosive and the listening device were in the sound channel. One cannot, of course, count on submerged submarines traveling at the depth of the sound channel, but it is a distinct advantage to have the listening system in the sound channel. This usually means off the continental shelf and part way down the continental slope.

Ideal listening sites are islands where there is deep water close to land and a large expense of deep ocean beyond. Cables can be run back to the beach and the equipment monitored on shore. Electrical power can also be supplied through cables running from shore.

It is difficult to operate such devices in a clandestine manner off the coast of a neutral nation. Although the listening hydrophones may be in international waters offshore, there is a power and communication link to a shore station. In principle, permanent listening arrays could be moored in the open ocean or floated from a surface buoy and the signal transmitted to ship, shore or satellite by radio. Helicopters employ similar systems today for very short range detection by dropping instruments within a few miles of a suspected submarine and having the sounds picked up by the surface floating sonarbuoy and radioed to the helicopter.[19]

Future Trends

The missile launching submarine is a key part of the nuclear arsenal of both the United States and the USSR. It would appear that its relative importance at least in the United States will grow rather than lessen, when compared with bombers and fixed installations ashore. It is unlikely that surface vessels will ever play an important role as a nuclear deterrent. They are too easy to track and too difficult to protect. Fixed installation of nuclear weapons outside the territorial sea and contiguous zone are outlawed under the present Seabed Treaty.

The range of submarine-launched missiles will increase in the future; so might the configuration of the submarine. It cannot be emphasized too strongly that the primary advantage of the missile launching submarine is that it is very difficult to track. If submarine detection systems should ever improve to the point where they can track the present generation of nuclear submarines, one might expect the response to be the development of slowly moving, near-bottom or even bottom-crawling devices. Moving about in the rugged topography of the mid-Atlantic ridge, for example, they should be much more difficult to track than the

[13] A conclusion also reached by SIPRI, *op. cit.*, (n. 9).

[14] *Ibid.*

[15] *Ibid.*

[16] *Ibid.*

[17] Vigoureux, P. and J. B. Hersey. "Sound in the Sea," in *The Sea*, Vol. 1, ed. by M. N. Hill, (New York: Interscience, 1962).

[18] Sound velocity profiles are easily calculated from known temperature and salinity information. However, I am not aware of any easily available reference of sound velocity profiles on a world wide basis comparable to that found for temperature and salinity.

[19] *Op. cit.*, (n. 2).

present nuclear submarine moving through the open sea.

Future long-range detection systems may be less dependent upon shore installations. It seems probable that the technology already exists to develop completely self-contained passive listening systems, if political considerations make such a development necessary. Active sonar detection systems may be developed. They will be in deep water but at least initially the power source and communication link will be on land.

Concerns with the Law of the Sea

The major concerns of the nuclear submarine navy is that the submarine remains undetected and that it maintain maximum maneuverability. This means first of all that it remain submerged at all times, and secondly that it have as wide a range of ocean to move about in, as is possible. Clearly the most important requirement is that any future revision of the Convention on the High Seas allows the submarine freedom of movement on the high seas while submerged. This must be the absolute minimum objective of those countries concerned with the ballistic missile submarine. Without it there is no military role for the submarine.

I would guess that the second most important requirement is that any revision of the Territorial Sea Convention which agrees on a width of the territorial seas greater than three miles, also makes provision for free transit through certain international straits. Some years ago the U. S. Navy determined that 116 straits would be affected by a change from three miles to a 12-mile territorial sea..[20] I suspect most of the straits are of little importance to a ballistic-missile submarine fleet in that alternate routes are available. Some straits most certainly are of critical importance; for example, the Strait of Gibraltar, which is only eight miles across.

There may be some disagreement about what rights warships have as they relate to innocent passage through territorial seas, but the 1958 Territorial Sea Convention is explicit on the point that submarines must travel on the surface and fly the flag. I do not know whether or not the concept of free transit through narrow straits carries with it the implicit understanding that military submarines can travel submerged, but I suspect the military will argue that it does. I am uncertain in my own mind, how important submerged transit is. In principle it should be possible to monitor even very quiet submarines passing submerged through a narrow strait. Thus, it could be argued that submerged passage is not vital as long as the submarine can submerge on the other side. The counter argument is that installation of a monitoring system requires agreement of the contiguous State which is not always possible. The major maritime States might also argue that there is some advantage to limiting the knowledge of such movement to those nations with the technical and economic capacity to mount such monitoring systems. My own guess is the military interests will fight hard for the acceptance of the idea that free transit assumes military submarines can stay submerged.

In order of priority, I would rank third the desire to insure that any change in the Territorial Sea Convention or the Continental Shelf Convention does not unduly restrict the maneuvering room of the ballistic missile submarine. Once the right to freedom of transit is established, it is less critical how far offshore the submerged ballistic missile submarines must stay if the *only* result is to increase the range by that amount. An extra few miles, even an extra 200 miles, does not make that much difference. However, it must also be noted that the extreme of a 200-mile territorial sea closes off the Mediterranean, the Baltic, the Sea of Japan, the South China Sea, the Caribbean and the Gulf of Mexico. A 200-mile territorial sea would mean the USSR would not have direct access to the Atlantic.[21]

I believe, however, that although free transit and narrow territorial seas are important to the ballistic missile submarine, they are of relatively more importance to other naval roles. One must not forget that the range of submarine ballistic missiles is ever increasing. The 6,000 mile ULMS submarines will be within range of any target while ranging the central Atlantic and Pacific. The really critical requirement is that ballistic missile submarines be allowed to remain submerged on the high seas, however the high seas are defined.

LIMITED DETERRENT

Military strategists have usually written that the art of warfare requires the concentration of the maximum amount of force to score a decisive victory and thus achieve one's goals. This concept is probably still applicable in determining the distribution of available forces in a battle. But there is some question as to its relevance today as a basis for military strategy, at least amongst the major powers. The advent of the nuclear bomb has resulted in a profound re-analysis of how one achieves one's objective through military power.

A persuasive argument can be made that all future encounters between nuclear powers will be based on committing the *least* amount of forces to achieve one's political goals.[22] It is imperative that each side endeavor to keep the dispute from escalating to a nuclear holocaust. I think a good case can be made for the theory that all of the maneuvering and fighting of both the United States and USSR in the past 20 years are rooted in the concept of applying the least amount of force, from the Russian establishment of the Berlin Wall to the U. S. prosecution of the war in Viet Nam.

[20] Bruce A. Harlow, "Freedom of Navigation," *The Law of the Sea: Offshore Boundaries and Zones*," ed. Lewis M. Alexander, (Columbus, Ohio: Ohio State University Press, 1967).

[21] The Office of the Geographer of the U. S. State Department has produced a chart showing the regions of the world oceans that would be covered by a 200-mile territorial sea agreement. Anyone with a good atlas and a bit of patience can do the same.

[22] D. K. Palit, *War in the Deterrent Age* (Cranbury, N. J.; A. S. Barnes & Co., 1966).

The Flexible Response Requirement

If you accept this line of reasoning, I think it is clear that the major powers require greater flexibility than ever before in choosing the appropriate response. This is true whether it is the direct threat of another major power, or the indirect threat posed by the movement of one lesser power against another which would appear to upset the accepted balance.

In one sense there is little new in this "limited response" concept. It has always been the case that one would *like* to achieve one's political goals with the least amount of military effort. However, in the past, if one could not achieve one's goals by a combination of diplomacy and sword rattling, nations were more likely to go to war. Once that decision had been made, the general strategy was clear: bring the maximum force to bear to achieve a decisive victory. Today, when both the United States and USSR can bring sufficient force to bear to wipe out civilization, that concept is no longer valid.

Whatever one may think of the political reasons for the U. S. involvement in Korea and Viet Nam, both are examples of limited wars whereby the United States attempted to achieve political goals with the least force necessary. I would add the responses of both the United States and USSR, to what in this country we refer to as the Cuban missile crisis of 1962, is another example of minimum response. I would further add that the fact that there has apparently been strong disagreement amongst both the civilian and the military leadership on the strategy to be applied in each of these cases, (both within the United States and the USSR) suggests that the concept is a complex one and not easy to interpret.

It seems to me, however, that the implication of the minimum military response strategy must be carefully considered in determining the military interests in the ocean. I also suggest that this concept may have at least limited application to nations other than the major nuclear powers. For example, I do not believe the military strategy surrounding the present Israel-Arab conflict is done in isolation of what escalating effect it may have. I further suggest that in the absence of general nuclear disarmament, there are few military conflicts between nations that can be viewed in isolation. Each conflict, no matter how small, must be considered in terms of how it might escalate to a nuclear holocaust.

Naval Implications

I would like now to consider the military uses of the ocean in the light of this flexible response concept. The possible uses of the seas are many and varied: an advance naval base to establish one's presence in a certain part of the world; one vessel or a small task force standing by off the shore of a coastal State in case of trouble; the establishment of a blockade; use of naval vessels for the landing of an expeditionary force; the movement of men and material in support of a land war; and finally, but certainly not least, naval warfare between two maritime powers, to deny to the other, one or more of these uses of the ocean.

In some situations a major power has several options in the way it applies pressure. For example, one can imagine moving men and materials into an adjacent State as a show of force. This is an alternative to having a group of naval vessels standing by offshore. I think, however, one could argue that in many cases at least, the sudden movement of men into an adjacent neutral or friendly State is a higher degree of escalation than the alternative of ships standing by in international waters offshore. For it to be less escalating would require the adjacent State to at least "invite" the major power to send in troops. In many cases, of course, this option is not available.

The landing, or the threat to land, a small expeditionary force on foreign soil, is another example of where a major power has several options as to how to exercise that threat. In the fall of 1970 it appeared, from the newspaper accounts at least, that the United States was considering coming to the aid of the Jordanian government. The United States could have either air-lifted its forces or landed them by ship. In a situation where pressure is being applied slowly and where there is a desire to keep one's options open I would guess there is an advantage of using ships rather than airplanes. In the first place, it is perhaps more impressive to have elements of the Sixth Fleet move into position than to put the 82nd Airborne Division on alert. Furthermore, there is more flexibility with a fleet maneuver. Ships can stay at sea for some time and proceed in a more deliberate fashion while negotiations continue. Once a transport plane is in the air it has to land somewhere in a few hours. I should note, however, that once a decision is made to move men into a country, the airplane can do the job much faster.

In the case of providing logistic support for an expeditionary force the navy and ocean role is unique. There are few viable alternatives for providing logistic support. Even the new C-5A of the U. S. Air Force is limited to about 100 tons of payload in transocean flights.[23] Although this is an incredible load for an airplane, planes can make but a minor contribution to supplying sustained military support. Any military activity that lasts in a country for more than a few weeks will be extremely difficult without sea transportation. For example, the 1958 airlift of 2,000 men into Lebanon was accompanied by 25 supporting ships.[24] In Korea 270 tons were transported by ship for every ton carried by air.[25] Thus, although a major power has several non-naval options in the way in

[23]J. I. Coffey, "Technology and Strategic Mobility," in *The Implications of Military Technology in the 1970's*, Adelphi Papers No. 46, (London: The Institute for Strategic Studies, 1968).

[24]Hanson Baldwin, *The New Navy* (New York: Dutton, 1964).

[25]*Ibid.*

which it escalates to a limited war situation there is no way to support a modern, transoceanic limited war situation except by sea transport.

Concerns with the Law of the Sea

I believe the interests of the limited deterrent navy are identical with those of the nuclear deterrent navy. They are in order of importance:

1. freedom of movement on and in the high seas, however they are defined,
2. freedom of transit through international straits and narrow seas, and
3. a narrow territorial sea.

The difference in emphasis, I suspect, is that the arguments for the freedom of transit and for a narrow territorial sea are even more compelling for the limited deterrent navy than for the nuclear deterrent navy. With the coming of 6,000-mile missiles, the nuclear missile navy probably could operate effectively even if confined to the central ocean waters. On the other hand, a military power whose strategy is based upon choosing the appropriate limited response to a given threat must view any move to limit its freedom of action on the ocean as a reduction in its flexibility and thus a reduction in its response options.

Having stated the obvious, let us now consider some specific problems. First, what will the effect be of a wide territorial sea on the limited deterrent navy? The extent to which the Territorial Sea Convention can be invoked to forbid military movement through territorial seas is debatable. The Convention reads "passage is innocent so long as it is not prejudicial to the peace, good order, or security of the coastal state." Warships can and have been denied passage. Perhaps military transports carrying troops can be kept out. Can transports carrying military supplies be forbidden? Is oil considered a military supply? If a sufficient number of nations consider the answer to these questions in the affirmative, then any increase in the breadth of the territorial sea without concurrent agreement on explicit rights of free transit will do major damage to the flexible response of the limited deterrent strategy.

Consider an extreme example, a move to a 200-mile territorial sea with no agreement on free transit. A 200-mile territorial sea effectively closes the Mediterranean to military maneuvering. It may be true that a major power such as the United States will move her ships wherever she wants in time of war. It is much less clear that she would pass through the territorial sea of a neutral country during a Middle East crisis if that country indicated its displeasure. For example, even if the United States could have secured rights of passage from sufficient countries to have moved warships from Italy to off Jordan as she did in the fall of 1970, it would have required time and reduced the flexibility of the U. S. response. Perhaps, most important of all, the necessity of applying diplomatic pressure to acquire permission to move ships through other nations' territorial seas would have automatically escalated the nature of the U. S. response.

The rapidity with which a nation can respond is always a prime element in its success. It is in this respect that free transit through international straits and narrow seas take on such importance. The closing off of a passage such as the Suez Canal does not stop the flow of traffic from the Atlantic to the Indian Ocean. It may be more difficult and expensive, but alternative routes are found. Thus, once a military operation on land has been underway for a few weeks, the problem of supplying logistic support is less dependent upon using the shortest route than it is during its opening moments. It may be more expensive to take a supply route that skirts other nations' broadened territorial seas. However, assuming such a route is available, once a quasi-steady state situation is established, the quantity of goods reaching its destination is equal to that leaving the home State regardless of length of passage. The only difference is the additional mileage cost and the requirement for additional transport vessels because of the longer time for each transport ship to make a round trip.

Thus, the argument for free transit is based primarily on the requirement of a nation being able to respond quickly to a new situation. It is of somewhat less importance in responding to conflicts after the initial stages.

Finally, let us consider for a moment the importance of a narrow territorial sea in those parts of the world where free transit is not a factor. For example, what are the arguments for a narrow territorial sea along the coasts of Europe and Africa that border the open Atlantic rather than the Mediterranean? It would appear that modern weaponry has eliminated the need for a warship to stand in close to shore to make its presence felt. A narrow territorial sea may have an important psychological effect, however. At three miles ships can be seen from the beach; at 12 miles you need a hill and a pair of binoculars. However, once ships are beyond visual range, the psychological impact, whatever it may be, cannot be much different whether the ships are 20 miles or 100 miles offshore. At such a time as when a conflict has reached the point where a ship is firing on the shore, the question of the breadth of the territorial sea would appear to be of only academic interest.

Future Trends

With two exceptions, my review of the literature suggests there is little on the technological horizon which will profoundly affect the nature of the limited deterrent strategy, at least as it relates to the law of the sea. Surface effects machines and other devices may sharply increase the speed of transport.[26] Improvements can also be expected in the off-loading of material; ships will have a wider range of options in finding suitable port facilities.[27] Homing missiles will give small patrol craft as much effective fire power

[26] *Op. cit.*, (n. 23).

[27] *Ibid.*

as major warships of World War II vintage.[28] Thus the absolute strength of the small navies of the world will increase markedly. Whether it will increase relative to the strength of the major maritime powers is a different question.

The first development that may affect the law of the sea is that of the submarine tanker. The problems of moving oil out of the Arctic has accelerated planning in this area.[29] Once developed for the Arctic, the submarine tanker may prove to be an economical alternative to the jumbo surface tankers. Concurrent with this development will be the need for offshore loading facilities. The reason for mentioning these developments in a paper dealing with the military uses of the ocean is that I think it important in the consideration of any major extension of the breadth of the territorial sea which does not also provide for the passage of submerged submarines. My point is that the submarines of the future will not be limited to the military variety.

The second development is more closely related to the military uses of the ocean. It is the development of floating advanced bases.[30] These could be airports for long-range bombers, advanced bases for ballistic missile submarines, general purpose naval bases, or a combination of all three. Although more expensive than land-based facilities they offer several important advantages. First, they are far removed from population centers. Suggestions have been made from time to time that all nuclear weapons, including the necessary advanced bases, be placed in the ocean.[31] In the United States, at least, there is increasing uneasiness about living close by such first strike targets as Strategic Air Command bases or nuclear submarine facilities. Is is also increasingly difficult to secure and maintain advanced bases on foreign soil.[32] Thus, although such floating bases may be more expensive, they may be more politically acceptable.

Equally important they have certain strategic advantages. Their positioning is less subject to the constraints of politics and geography. In principle, at least, they can be more effectively located than can land-based facilities. They can be moved, if not from one ocean to another, at least from one place to another within an ocean basin. In this respect they would be useful adjuncts to the flexible response requirements of a limited deterrent navy.

I am not prepared to even speculate as to the legal status of these semi-permanent, slowly moving, self-contained bases which could be several square miles in area. I would only note that I think the development of such bases by the military in the next 25 years is more likely than the military development of manned habitats on the ocean bottom. The legal status of the latter has been the subject of considerable discussion.[33] I think the development of manned underwater habitats will come also, but the impetus probably will be less from the military than from science and from resource exploitation. There does not seem to be an obvious military mission at this time for the manned underwater habitat.

GENERAL WAR

The conventional role of the navy in a general war has been to keep the sea lanes open to allied shipping and to deny the use of the seas to the enemy. Seldom are wars decided by a single naval battle as in the defeat of the Persians in the Battle of Salamas or in the defeat of the Spanish Armada. Victory in the Battle of the Atlantic in World War II meant that men and equipment could be moved to the European mainland where the decisive battles were fought. Similarly, the defeat of the Japanese Navy in the Pacific allowed the United States to "island-hop" its way toward Japan, denying supplies to those Japanese forces left behind and developing a partial blockade of the Japanese mainland. Victory or defeat at sea may often pre-determine the outcome of the land war, but the decisive battles themselves have usually been fought on land.

As I have previously noted there are those who question whether the concept of general war has any relevance today. They argue that the consequences of a nuclear war are so disastrous that all future encounters between nuclear powers will be fought on the basis of using the least amount of force to secure one's goals rather than by concentrating the maximum amount of force available, which is what one used to mean by general war. A war which escalated to the magnitude of World Wars I and II would be inherently unstable and would lead almost immediately to nuclear war. By this argument, it then follows that blockades of enemy ports, convoy protection, amphibious assaults and fleet actions are a thing of the past.

Such an argument may be persuasive in the case of a major confrontation between the major maritime powers. The same argument applied to smaller maritime powers is less convincing. The 1967 Israel-Arab conflict was a general war. Although naval ships played little part in the conflict it is easy to imagine future conflicts between smaller nations which would include major naval actions. Thus, although a general naval war of any length is unlikely between the United States and the USSR (the two countries best equipped to fight such a war), the possibility, or even probability

[28] *Op. cit.*, (n. 2).

[29] After some years of low priority effort, the Electric Boat Division of General Dynamics (the major builder of U. S. Navy submarines) is reportedly devoting considerably more effort to the design of submarine tankers.

[30] John P. Craven, "Res Nulius de Facto—The Limits of Technology," presented a Symposium on the International Regime of the Seabed, Rome, June 30-July 5, 1969. Craven also reports (personal communication) that Hawaii is considering the building of a 40-acre offshore floating island as a tourist attraction in conjunction with their planned Expo '76.

[31] *Op. cit.*, (n. 1).

[32] *Op. cit.*, (n. 23).

[33] William T. Burke, *Ocean Science Technology and the Future International Law of the Sea*, (Columbus, Ohio: Ohio State University Press, 1966).

of such conflicts between lesser military powers cannot be dismissed. Because of the interests of the United States and USSR in keeping their own confrontations from escalating to nuclear war, I would further guess that such general naval wars are more likely between those smaller maritime powers where the interests of the United States and USSR do not conflict in a major way.

Such naval wars might not be far-ranging. The area of conflict might be limited to a very small body of water. However, the tactical and strategic rules of warfare would probably not differ significantly from those of a larger conflict.

Concern for the Law of the Sea

In reviewing the possible ways a navy would use the ocean in a general war situation, I have been unable to think of important ways in which the military interest in the law of the sea might differ from those discussed previously. Freedom of movement on and under the seas, free transit through straits and narrow seas are as desirable in a general war situation as in a limited war situation. Depending upon the situation, it is possible to imagine cases where one or the other of the conflicting nations might be willing to ignore the territorial sea claims of a neutral nation if it meant the possibility of gaining a distinct miltary advantage over his opponent. However, it does not follow from this possibility that a general war situation makes the territorial claims of other nations irrelevant.

INTELLIGENCE AND COVERT ACTION

Intelligence

Both the United States and the USSR use ships on the high seas to gather intelligence information. Mostly this is done electronically and is simply the interception of radio messages and other electromagnetic signals. Both the United States and USSR apparently feel compelled at times to pretend that they are not so engaged. The USSR uses thinly disguised "fishing trawlers." At the time of the *Pueblo* capture by the North Koreans the U.S. Navy listed her as one of a class of Environmental Research Ships.[34]

To the extent that oceanographic and other environmental information is of military importance, it might also be classed as intelligence. Such data is collected in a variety of ways. Some of it appears as a by-product of scientific investigations or resource surveys that have no connection with military requirements. In recent years scientists who wish to work off foreign shores have been subject to an increasing complexity of regulations and requirements.[35] To some extent at least, this harassment (and as a working scientist I can only think of it as harassment) is related to a belief that the information collected is of military value.

[34] *Op. cit.*, (n. 2).

[35] William T. Burke, *Marine Science, Research, and International Law*, Occasional Paper No. 8, (Kingston, Rhode Island: The Law of the Sea Institute, 1970).

Covert Action

There is a long and wonderful tradition in popular fiction concerning the landing of spies and guerriila leaders by small fishing boats or submarines. It is not all fiction. There are at least some documented cases of past examples of such action. Since there is little question but what such persons have landed ashore before, it would be rather surprising to find that the practice has stopped today.[36] On the other hand, I find it difficult to believe but what this is a comparatively minor military use of the oceans. Others may disagree. Whatever the true situation, it is apparently difficult to get any quantative data on how much of this sort of thing is going on. At least I have been unable to.

Future Trends

Scientific investigations in the ocean are going to increase in the future. Much of this increased acitivity will be concerned with environmental monitoring for pollution, better weather and ocean forecasts, and keeping track of fish stocks and other biological activity. Some of this activity will be done with unmanned buoys, both anchored and free floating. Superficially, similar buoys, Ocean Data Acquisition Systems (ODAS), can be used for military intelligence both on the high seas and in nearshore waters. It will require very careful planning and arrangements to keep these two kinds of activities separate. The problem is further complicated by the fact that many of the areas of greatest interest and importance for scientific study and environmental monitoring are near the edges of the ocean.

Concerns with the Law of the Sea

As long as the electronic surveillance ships remain outside the territorial sea, there is no law to keep them from listening. Any extension of the territorial sea claim reduces the effectiveness of the operation. Furthermore any extension of the territorial sea or the outer limit of the seabed of national jurisdiction can be used to reduce, or at least regulate, oceanographic activity. The scientific community of which I am a member has made several proposals with the hope of alleviating what to us is a very serious threat.[37] Our problem is, how does one continue to carry on scientific investigations in the ocean in the light of an increasing fear in many nations, that the information gathered is of use to more than the scientific community. I have much more to say on this subject, but this review is not the place.

It is not clear what part the law of the sea plays in covert action situations. Since landings and other activity are clearly illegal, ships engaged in such activity are unlikely to be concerned with territorial sea

[36] For a previously unavailable account of seaborne covert activities see the several Landsdale Reports in Neil Sheehan, Hedrick Smith, E. W. Kenworthy and Fox Butterfield, *The Pentagon Papers*, (New York: Bantam Books, Inc., 1971).

[37] *Op. cit.*, (n. 35).

violations. However, a wider territorial sea may make execution of such actions more complicated than is the case with a narrow territorial sea.

In summary, since nearly all intelligence and covert actions are directed toward the land and coastal regions of a nation, those engaged in such activity would favor any change in the law of the sea which would facilitate access to these regions. Contrarily, the best defense against such activity would be the extension of national jurisdiction seaward. How one separates the legitimate needs of science and environmental monitoring and forecasting from the concern of many that such information is of prime importance for military intelligence is a problem that requires careful study. It is a problem that will become increasingly important.

NATIONAL SELF-INTERESTS

So far we have discussed present and possible future military roles in the ocean, and the effect of possible changes in the law of the sea on these roles. Let us now consider briefly the self-interests of different nations. Most of the previous discussion has been made from the point of view of a major maritime power. There are very few major maritime powers. The index to the most recent *Janes Fighting Ships* lists 107 nations with navies.[38] However, this number is more a measure of the completeness of the editorial effort than a true measure of naval power. Included for example is Gabon with a single 92-foot patrol boat, and Gabon is not the weakest navy included. Of the navies listed, only 32 have one or more destroyers or larger vessels. Nine have aircraft carriers. Three, the United States, the USSR, and the UK have nuclear-powered submarines in operation.[39] Depending upon the criteria used there are perhaps 20 maritime powers with navies capable of more than a limited coastal defense mission.

Since World War II, the United States has been the greatest naval power in the world. The relative strength of the U.S. Navy compared to that of its NATO allies has grown in the past 20 years. The only major navy that has grown at a faster rate than the U.S. Navy is that of the USSR. Ignoring for a moment any alliances, such as NATO, it would appear that the United States and USSR are the only two countries capable of full military use of the oceans in the manner outlined. Furthermore, it would appear that no other nation is able or prepared to make the investment to develop the necessary military strength. However, as was pointed out in the section on general war, some of the smaller maritime powers may be better able to develop full naval strategies for the ocean, than are the United States and USSR.

In assessing one's self-interest it would appear that each country might ask itself a series of questions:

1. What are the prospects of continuing to be, or developing into, a sufficiently important naval power that my country can use the oceans to military advantage?

2. Assuming my nation maintains a limited naval capability, are these military uses of the ocean sufficiently different from those of a major maritime nation as to affect my views of the law of the sea?

3. What are the prospects of my nation remaining so tightly allied with one of the major naval powers that my nation's military interests in the ocean are essentially the same as that of the major power?

4. Assuming my nation will probably always be a weak naval power and that my interests are sufficiently different from the major maritime nations, are there ways the law of the sea can be developed to reduce the relative military advantage of the great maritime powers, and would this be in my long-term interest?

The Dilemma of the Weak Coastal State

In the preceding discussions I have attempted to assess the interests of the major naval powers in the law of the sea. As an amateur, I grant this is presumptuous on my part. But as a citizen of one such power I have few qualms about voicing my opinion. I have serious misgivings, however, in attempting to assess the best interests of those nations which are not major naval powers. However, in order to complete this analysis I feel I should make at least a small attempt in this direction. Rather than discuss the relative interests of all classes of naval powers, let me consider the interests of one extreme class, the coastal nations whose navies consist of patrol boats and coastal mine sweepers or less. There are only 50 coastal nations that *do not* fall in that category.[40] When you compare this figure with the approximately 123 coastal States who might be expected to participate in the forthcoming law of the sea conference, it is clear that this is a very significant number of States—at least numerically.

It seems to me that these nations are faced with the following dilemma. On the one hand there is the argument that freedom of movement of military ships on the ocean is a stabilizing element in the present balance of power. Given the nuclear bomb capability of the United States and the USSR, I do not believe such an argument can be lightly dismissed. On the other hand, a regime which essentially forbids the ocean to all military usage must appear very tempting. It would in effect protect the coastal flanks of the non-naval powers from harassment of any naval power, large or small.

The case for naval power as a stabilizing influence in the balance of power has been made. Missile-launching submarines are preferable to fixed systems on land. They are a secure second strike force. The thrust and parry of United States destroyers in the Black Sea and USSR submarines and support vessels in the Caribbean may be preferable to confrontations in Berlin or across the Suez Canal. The maneuvering of an aircraft carrier and support ships offshore may

[38] *Op. cit.*, (n. 2): 1969-70 edition of *Janes Fighting Ships.*

[39] *Ibid.*

[40] *Ibid.*

represent less escalation of a given situation than the movement of a similar expeditionary force across the territory of a neutral country.

Although I personally find these arguments persuasive, others may disagree. For example, it might be argued that neither the United States nor the USSR is stupid enough to destroy civilization by letting fly with its ballistic missiles, and that somehow reason will always prevail. If you believe this, many of the arguments about the military uses of the ocean being a stabilizing nature are merely an academic exercise.

If a nation with no navy (or a very small navy) is not persuaded that it is in the interests of civilization as a whole to leave the military uses of the ocean alone, and if she does not see her destiny closely linked with one of the major powers, then she might well feel her best interests lie in attempting to use the law of the sea conference as a vehicle for disarmament. To the extent that she succeeds she will have protected her coastal flank from military harassment.

Such nations could adopt several strategies. At one extreme, they could propose eliminating all military uses of the high seas. A less restrictive form would be elimination of all military systems that could not be tracked by an internationally-controlled, satellite surveillance system. Thus the position and movement of all vessels would be known at all times. Military submarines would be outlawed under such a regime.

Although such proposals may seem unlikely to be given serious consideration in 1973, there are others which might generate wider support. The development of neutrality zones is one. Certain areas of the ocean could be forbidden for military ships of any nation.[41] The extension of the closed sea concept is another. Nations bordering a body of water could determine jointly the uses of that region.

A final possibility would be a series of proposals that do not so much restrict the military uses of the ocean, but in effect make it more difficult for navies to operate. Extension of the territorial sea and a more strict interpretation of innocent passage are examples.

CONCLUSIONS

The conclusions one reaches from this analysis are the obvious ones. It is in the interests of the major naval powers to maintain maximum freedom of the seas so that they may take full military advantage of the oceans. Similarly it may not be in the best interests of the weak naval powers for this to occur. It takes little reflection or study to reach such an answer. If the foregoing analysis has any merit, it is that it is an attempt to quantify these obvious qualitative conclusions. Although military interests in the use of the ocean are important, they are not the only interests. Trade-offs and compromise will be necessary in developing the total position within each nation and at the conference table. Furthermore, the military interests in the forthcoming law of the sea conference cannot be treated separately from other international forums where military matters are being discussed. The Strategic Arms Limitation Talks (SALT) between the United States and the USSR may have a profound effect on how these two nations and others look upon the military interests in the ocean by 1973.

I cannot conclude this discussion, however, without putting forth a suggestion I have made elsewhere.[42] Assuming there is no restriction on the military use of the high seas, however defined, my reading of the military requirements of the major powers suggests that the other key requirement is free transit. It is not the breadth of the territorial sea that is worrisome, but the extent to which an extended width reduces movement in straits and narrow seas. A 200-mile territorial sea off Peru is not a major problem, but a 200-mile territorial sea for all the nations bordering the Mediterranean would be intolerable since it would completely restrict movement within the Mediterranean.

One solution would be the adoption of a territorial sea of variable width depending upon the situation. As an example let the widths of the territorial sea be x miles or y percent of the distance to the median line between two land masses, whichever is less. If x were 20 miles and y were 66-2/3 percent, the width of the territorial sea would be 20 miles everywhere except where the distance between land was less than 60 miles. For example, if the straits were 30 miles wide, the territorial sea on either side would be ten miles and the high seas region between would be ten miles. Regardless of the distance between land (assuming it were more than some minimum distance such as three miles) some portion would be international. If agreement could be reached on such a formula, the values assigned to x and y are less critical.

Such a formula could be applied whether one is talking about the territorial sea, or some intermediate zone or trusteeship zone which might include military restrictions of some kind or other. It is not an ideal solution for those with strong military interests in the ocean, but I suspect it is one they could live with.

In my opinion the military interests of the major powers are going to have to accept more restrictions than previously, if agreement is to be found at the conference table. It is not my position to speculate on what compromises will be necessary, but it is clear that the military interests of the major powers are contrary, at least in part, to the resource interests of most nations and to the military interests of many nations.

[41]Since the writing of this paper, Ceylon has requested the 26th session of the U. N. General Assembly to place on the agenda "an item of important and urgent character: Declaration of the Indian Ocean as a zone of peace." Military ships would be denied the use of the Indian Ocean except the right of transit without stopping.

[42]John A. Knauss, *Factors Influencing a U. S. Position in a Future Law of the Sea Conference*, Occasional Paper No. 10, (Kingston, Rhode Island: The Law of the Sea Institute, 1971).

Panel: Military Interests to Be Negotiated

Attila Atam, Special Legal Advisor, Ministry of Foreign Affairs, Turkey

Tuesday morning, June 22

When I was invited by the Law of the Sea Institute to be a panelist on the topic of military interests to be negotiated in the forthcoming Law of the Sea Conference, I was somewhat hesitant to accept the invitation. This hesitancy was due to the fact that there would be many distinguished scholars and statesmen participating in this Annual Meeting who would qualify much better than I to become a panelist on this important subject. However, I accepted the invitation by considering that the questions were not simply technical, but primarily concerned with an interest analysis on which I have had some experience in the past.

The paper presented by Dr. John A. Knauss is analytical, well-organized and was, doubtlessly, based on thorough research.

As it is clear to all of us, the topic is very wide and the interests concerned are many. Hence, certain points raised in the paper call for further consideration. In this brief period I will attempt to express my views on some of these issues.

PASSAGE OF SUBMERGED SUBMARINES

In the paper one of the questions raised was whether the concept of free passage through narrow straits carries with it the implicit understanding that submarines can travel submerged. It was also pointed out that maritime States might reach an agreement that free passage means that military submarines can pass through the straits submerged. If such a solution would be accepted, those countries which have the technical and economic capacity for establishing monitoring systems could detect the movements of the submerged submarines, while others could not.

To me, it is not probable that the technologically and economically advanced countries would act on this issue in accord, because even though they might have the same interest in the matter, generally they will not let the other have the advantage. Besides, even if we assume for a moment that such an accord would be reached between the technically and economically advanced countries, the less developed countries will not accept a formula which is against their own interests. It is appropriate to remember here that in such a Conference of international character, when the interests of the less developed countries clash with those of the advanced nations, the will of the majority—that is, the less developed nations—will prevail. For this reason, the developed countries will have to be more tactful and not appear as a different pressure group, but rather try to accommodate their interests with the common interest of all.

In another part of the paper, we were told that the development of submarine tankers and the use of them for transportation purposes justify submerged submarine travel in the territorial sea. This claim will not be accepted by many of the countries, because either they do not have adequate monitoring systems, or even if they do they could not detect whether a submerged submarine travels for a peaceful purpose or for a military or covert action purpose.

THE RELEVANCE OF THE BREADTH OF THE TERRITORIAL SEA TO THE NAVIES

In Terms of Innocent Passage Through and Over the Territorial Sea

As we all know, a coastal State may exercise authority and control within its territorial sea as it does over its land territory. The territorial sea is considered an integral part of the State's territory with the exception that through it ships of other nations have the right of innocent passage. Passage is considered innocent as long as it is not prejudicial to the peace, good order or security of the coastal State.

Now, how does the breadth of territorial sea affect naval forces? If a wider limit for the territorial sea would be accepted and if the coastal States unreasonably restrict the right of innocent passage, it is clear that the navies will have been considerably affected. What could be these restrictions? First, the extent of restriction might amount to almost a denial of right of passage of warships. For example, the USSR claims that warships on the whole do not have the right of innocent passage and the territorial waters can be passed through only with the permission of the coastal State. Secondly, a well-known restriction is that submarines have to navigate in the territorial waters on the surface and they must fly their national flags. And thirdly, in accordance with Article 16 Paragraph 3 of the Convention on the Territorial Sea and Contiguous Zone, the right of innocent passage could be temporarily suspended in certain portions of the territorial waters. From the foregoing information it could be concluded that an increase in the breadth of the territorial sea might substantially restrict the mobility of the naval and air forces. This situation would affect particularly those of the major powers.

In Terms of the Passage Through Straits

The passage of the navies in time of peace and war through narrow straits is a very important question, particularly for the major naval powers. A recent study on this question reveals that a six-mile limit would result in 52 major international straits coming under the sovereignty of coastal States, and that a 12-mile limit would likewise affect 116 straits. These are, no doubt, inadmissible to most of the States.

If the 1973 Conference on the Law of the Sea concludes that 12 miles will be the breadth of the terri-

torial sea, one possible alternative would be to formulate rules to secure the passage through international straits. Such a formula would permit extension of the territorial sea without jeopardizing the mobility of naval forces.[1]

INTERESTS OF WEAKER COASTAL STATES

As the distinguished speaker pointed out, only about 20 nations have navies capable of more than coastal defense mission, and only two of them, the United States and USSR, are the major naval powers. As regards military issues raised in the Conference, to hold that the other countries will follow the same line with one of the two major naval powers might be an oversimplification. The countries belonging to the NATO and the Warsaw pacts would probably accommodate their interests with the major military power with whom they have alliance. Also, some of the so-called non-aligned countries may support one or the other major power. But, to be sure, some of them by following their own interests will form occasional interest groups, such as the Latin American group, the Arab group or any other combination.

The alternative mentioned in Dr. Knauss' paper for the weaker coastal States to support the proposals for established neutrality zones in certain areas of the ocean will have no value if effective control is not to be established.

It was also stated that another alternative open to the weaker coastal States was that they might support in the Conference the proposals which do not so much limit the military uses of the ocean, but in effect make them more difficult to operate by extending somewhat the territorial sea and by strictly interpreting innocent passage. This might be an acceptable alternative for these nations, and on this issue a clash of interests with the major powers is to be expected.

THE GROWTH OF THE LAW OF THE SEA

As a final remark, I would like to indicate that the whole complex of problems encountered in the law of the sea cannot be solved in the forthcoming Conference. But some progress could and should be made in certain areas, including the breadth of territorial seas and the treaty law on the subject, together with other forms of law which will certainly develop through time.

[1]See Bruce A. Harlow, "Freedom of Navigation," *The Law of the Sea: Offshore Boundaries and Zones*, ed.: Lewis M. Alexander, (Kingston, Rhode Island: University of Rhode Island, 1967).

Sven Hirdman, Stockholm International Peace Research Institute

Tuesday morning, June 22

I am from SIPRI, the Stockholm International Peace Research Institute, but I am present here on my own behalf. I do not in any way represent Sweden. In contrast to most of you, I am not a lawyer. I have done a study on the militarization of the deep ocean for the *SIPRI Yearbook of World Armaments and Disarmament 1969/70*, and most of what I am going to say will therefore relate to the undersea environment. Perhaps I will be able to say more about the military uses than Mr. Ratiner because I am a "free agent." However, as to the details of the technological development in the undersea environment, and in particular the developments of new military systems, I would like to refer you to the *SIPRI Yearbook 1969/70*.

I would like to do three things here. First, I would like to give some comments on Dr. Knauss' paper, and also on statements made by other speakers here. Second, I would like to present a few facts, as I see them, as to the present military uses of the undersea environment. Third, I want to give you some opinions of my own on the merits of seabed disarmament; and finally, if time permits, I would also like to discuss arms control measures in the ocean generally.

I agree with most of the conclusions in Dr. Knauss' paper, but permit me to make three or four comments. I would have stated more forcefully than he did the major point, that a strategic shift to the oceans has occurred in the last decade. There are several reasons for this: land based missiles are becoming increasingly vulnerable, primarily because of the development of reconnaissance satellites and the increase in missile accuracy, and more recently with the development of MIRVs. MIRVs will make it fairly easy for the two superpowers to destroy any land targets in the world through saturation.

The costs of protecting one's own land based missiles are becoming prohibitive because of the increased accuracy of the attacking missiles. This applies both to the case of building reinforced concrete silos and to making the missiles mobile on land. On the other hand there are the advantages of overall mobility and invulnerability in the undersea environment. I therefore really foresee an increasing tendency for the major powers to move their strategic weapons under the sea and keep them there.

The second comment on Dr. Knauss' paper is that I would personally question the statement that he made on the stabilizing influence of surface navies. I would go along with him as to the stabilizing influence of the undersea deterrent force; I think that is a justified statement. I would not go along with him as to the surface navies. I think that the development of surface navies by the great powers in many situations has increased tension in the world and complicated the international atmosphere; and that therefore a good option in many cases would be to stay out, not to go in with surface navies.

Another more detailed comment relates to the possible development of manned underwater stations. He said that it did not seem likely to him that there would

be much development of manned underwater habitats. I doubt this is true. It is a fact that the United States Navy has been actively interested in such concepts over a long period, and that experimental constructions have or soon will be deployed. There are various developments, not only the sea-labs but also other constructions. Missions for such manned underwater habitats have been described, for instance, as undersea ASW control centers. The general policy of the United States Navy, perhaps in the future also of the Soviet Navy, seems to be to develop the capability to operate anywhere in the ocean environment at any time. That is the stated policy, and they are exploring all possible options.

Another point concerns the new concept that Dr. Knauss touched upon, the stable platforms and their development. There is some experimental research going on, and prototypes are being built in the United States. The Advanced Research Projects Agency (ARPA) is concerned with these programs. There were, though, recently some statements indicating that the United States naval forces are not that optimistic about the feasibility of a very large platform; it seems to be a very bright idea to some, but the platforms are vulnerable to attack.

In agreement with Dr. Atam, I want to comment on the passage of submarines through international straits. Dr. Knauss said that in his view the great powers would want to insist on the right to let their submarines travel in submerged state through international straits. I just wonder whether this is militarily necessary. The submarines could afford to go through in surface state; it should not be difficult for them to disappear afterwards.

I would like to make two comments on two military points made by Professor Burke yesterday. If I understood him correctly, he said that in his view the extension of territorial waters might diminish the operational possibilities of the SLBMs. I doubt if that is so. With the very long range of the ballistic missile submarines now and in the future, they would not have to be anywhere near the coastal waters. To whatever conceivable limit the coastal waters are extended, I do not think this will much affect the operations of ballistic missile submarines.

Another point Professor Burke made, as I understood him, was that the Polaris missile force would perhaps be vulnerable in a very short time span, in a few years' time. I do not think this is true. The most recent statements I have seen indicate that in the view of the responsible authorities, the invulnerability of the Polaris force is assured into the mid-1970's, and there is no precise indication of threats after this period.

I would like to make a few salient points as to the military uses of the undersea. My first general remark is that the undersea environment has to be seen as a whole; one cannot separate the seabed from the adjacent deep waters. It is one environment; I will come back to that when I discuss the seabed disarmament treaty. Secondly, the main military interest in the seabed and the deep ocean waters lies in the context of antisubmarine warfare.

Going through the various layers of the undersea environment and starting with the sea bottom, one arrives at the following picture. On the seabed there are already deployed many submarine listening posts. Such systems have been deployed for as long as 20 years along the coastal zones of some countries, the United States for instance and maybe others too. Submarine listening posts are also likely to be deployed in certain barrier areas, such as the natural barriers between Britain and Greenland in the North Atlantic, and in similar areas in the Pacific. At the barriers, the function of these listening posts is to register the passage of the submarines of the adversary.

As I said, such systems exist and have existed for a very long time. Most of them are probably of the passive sonar type. But there is also very intense development of new active submarine detection systems, involving the installation of very powerful megawatt systems on continental shelves and on mobil platforms and other carriers. Further, various types of navigational aids have been deployed on the sea bottom for some time, and there are also new developments.

Another category of sea-bottom devices are, of course, mines. Mines present an interesting legal problem, because as you know one is not allowed to deploy mines in time of peace. But there are very sophisticated mine systems that could be deployed very quickly and in very great quantities if there is threat of war; there are various types of bottom mines but also other mines.

In the next category of military construction I would like to mention are the various types of habitats that have been developed, not only by the United States but also by the Soviet Union, France and Japan, to mention the most important countries. In this category are the so-called sealabs. The sealabs will permit military uses of the seabed by military personnel at least to continental shelf depths. Several month-long experiments have already taken place. But there is also active development of one-atmosphere manned underwater stations. Some construction experiments are going on, and concepts have been developed for such underwater stations down to 6,000 feet. If you read the Stratton Commission Report, you may remember that the Commission recommended several such concepts for active development by the United States. Among these were sea floor constructions of the rock-site type, which presumably would be harder to detect and destroy than the other types of stations.

Turning now to new developments in the mid-waters, there is the whole range of submarines. Ballistic missile submarines have become one of the primary strategic arms of the superpowers. In the United States, planning has already started on a new ballistic missile submarine, the ULMS. Development is also not standing still with regard to new attack submarines. A new attack submarine, the SSN 688, is being developed in

the United States. According to U. S. reports, the Soviets too are developing new, faster, quicker, more silent subs. Speculating a little, one can foresee not only bigger submarines, but also smaller submarines—small, deep-diving, silent, fast submarines, which could be very efficient systems of attack against the other side's submarines.

I should add here that new power systems are being developed—fuel cells, dynamic conversion systems, etc. —which may well permit advanced medium nations to develop their own ballistic missile submarine forces.

The next category consists of the submersibles. You all know of these deep-diving subs that can go down to at least 8,000 feet, perhaps deeper. The United States has developed and is now testing the Deep Submergence Rescue Vehicle (DSRV). It was recently stated that the DSRV has now been mated to a mother submarine. But there are also setbacks, as witnessed by the scrapping of another concept, the Deep Submergence Search Vehicle, which was to be operational down to 20,000 feet.

A very interesting category of underwater systems are the unmanned vehicles. It seems that the military and the commercial communities and others are becoming increasingly interested in these vehicles, because for many purposes they are more effective than manned vehicles; and they do not carry with them the risk of losing human lives. At least one United States unmanned underwater vehicle, RUM, has been tested down to 20,000 feet. I gather the French are developing one, Telenaute, with similar capability. These vehicles can perform various missions on the seabed; test equipment, fetch things on the seabed, install equipment, and so on.

With relation to submarine warfare conducted from the surface, several types of buoys have been developed in this country and in other countries. The United States, it has recently been stated, is increasing its efforts in ocean surveillance, where the buoys have a major ASW role. I presume the other superpower, the Soviet Union, has a corresponding interest in this development. One may also foresee the future development of mid-water buoys, which could be used as sound detection systems.

Turning now to my third subject, disarmament aspects of the undersea environment, I would like to support very strongly a remark made by Dr. Knauss as to the very low military significance of the seabed disarmament treaty which outlaws only the fixed emplacement of nuclear weapons on the seabed. In theory it outlaws the emplacement of all mass destruction weapons, but I do not believe anyone can think of any rationale for deploying chemical and biological weapons on the deep ocean bed.

It seems to me, as it does to many other people who have studied this subject, that there has not been any really serious military interest in the deployment of fixed nuclear weapon delivery systems on the seabed; and further that the conclusion as to the low military value of such deployments was reached well before the disarmament negotiations started in 1967-1968. It is just not worthwhile having fixed nuclear installations on the seabed. It is expensive. It is technically difficult. Any conceivable nuclear installation would be vulnerable to detection and destruction. It is much more preferable to put the nuclear missiles on mobile platforms such as submarines, which is what countries have done and are continuing to do.

During the two years of discussion about the seabed treaty at the Geneva Disarmament Conference, not one of the countries participating has questioned the utility of such a measure, which is rather surprising. When the treaty was opened for signature in February of this year, it was signed by some 62 countries. It has, however, not yet entered into force. The requirement is that 22 countries must ratify it.

There is a commitment for further disarmament measures inscribed into this disarmament treaty, and one might speculate what sort of further disarmament measures these could be. Some people have suggested a ban on the installation of conventional weapons systems on the seabed. During the disarmament talks in Geneva, Canada presented a list of weapons systems which in its view ought to be banned; it seems, though, that this is just a list of theoretical systems, for which the concepts have not been developed.

The only known existing conventional weapons systems are bottom mines, which are not supposed to be deployed in time of peace. However, it has been reported in the latest Marine Science Council Report that the United States Army has been studying the possible effects on onshore facilities of very large underwater explosions. There has been speculation for many years as to the possibility of exploding a nuclear mine outside a coastal area and thereby creating a tremendous wave which would flood a low-lying coastline.

Another issue I would like to raise is the definition of peaceful purposes. This has been bandied around during all the seabed disarmament discussion and during the deliberations in the UN Seabed Committee. The resolution on the principles for the international seabed area adopted by the last General Assembly included a provision which said that the seabed area should be reserved exclusively for peaceful purposes. It is very interesting to see what sort of interpretation nations put to the term "exclusively peaceful purposes." The United States, for instance, understands by peaceful purposes that a nation can do anything it wants to do except those military activities which have been outlawed in specific agreements; every other military use is interpreted as being consistent with "peaceful purposes." Other nations, including some underdeveloped countries, have taken another view, saying that peaceful purposes means that you could not have any military installations on the seabed. The Soviets from time to time seem to have supported this view of the underdeveloped countries.

The Soviets have a number of times gone very far in their proposals for disarmament of the seabed and

the undersea environment. Perhaps you remember that in July 1968 a Soviet memorandum on disarmament stated that it would be desirable to outlaw ballistic missile submarines. I do not believe they would repeat this proposal now. The first draft Soviet seabed disarmament treaty, tabled in the spring of 1969, aimed at outlawing all military installations on the seabed. But later the Soviets agreed to the American proposal for a denuclearization measure only. Then in the UN Seabed Committee last year the Soviets suddenly proposed the prohibition of all military activities on the seabed. This caused a little crisis in the Committee. The Soviets may raise this issue again, but it becomes less likely as they become more experienced in the military uses of the seabed themselves.

It is my personal view that any further disarmament of the seabed and the deep ocean waters must occur in the context of more comprehensive measures: general and complete disarmament or at least general nuclear arms control—and then be discussed at SALT or at a similar forum. The main reason for this is that ASW installations on the seabed are directly related to the global strategic balance; therefore one cannot isolate the seabed from the rest of the military activity in the world.

I can imagine a few possible conflicts coming up in the coming negotiations over a seabed or an ocean regime. The main one relates to the existence at the present time of ASW listening posts on the seabed on the one hand; on the other hand the proposals that one should have an international machinery that would allocate commercial exploitation licenses to nations or national companies. I could very well imagine that one nation, suspecting that another nation has a submarine listening post in a particular area of the world, for military reasons asks for a license in the same area. There may thus develop a conflict between the existing system of military installations on the seabed and the proposals for granting licenses in the international seabed area.

Leigh S. Ratiner, chairman, Advisory Group on Law of the Sea, U. S. Department of Defense

Tuesday morning, June 22

I owe a considerable debt of gratitude to Dr. Knauss, first for having done such an excellent and comprehensive paper. And second, many of you may not know that the Department of Defense, after the recent rash of aircraft hijackings, prohibited its employees from carrying classified information when they traveled. Now I have Dr. Knauss' paper to take with me for briefing materials.

I cannot comment with great specificity on the points made in Dr. Knauss' paper. Some of them really are classified and some of them are not, and I am not about to comment on any of them because those would clearly be the unclassified ones. Nor do I think it is very helpful to "nitpick" Dr. Knauss' paper; it is a good paper. In general, it outlines the interests of the Department of Defense and probably of the Soviet Ministry of Defense.

In listening to it, I tried to put myself in the place of the members of the audience, and there was one thing about Dr. Knauss' presentation that would make me ask a question if I were sitting in the audience. It is a question that we asked ourselves before getting into this law of the sea business, but it is a question that others may not have asked: If we have all these important interests—some of you may like these interests and some may not, but the fact is if I were the Chief of State of the Soviet Union or the United States, I would think they would have overwhelming importance based on the world as we know it today—what in the world are we doing in a Law of the Sea Conference? Why is the United States voluntarily entering into a negotiation with ultimately 120 countries when it has so many important interests at stake, which it might lose in the negotiations?

And let us look for a moment at the other side of the coin. The United States is very well served in many important respects, from an economic point of view, by unilateral claims of jurisdiction, even out to 200 miles. I think all of you are familiar with the position of our petroleum industry. You are familiar with the position of many people in our fishing industry, and they would be in their own view—I do not happen to share it—well protected by a 200-mile zone of exclusive resource jurisdiction.

I suppose there are many somewhat more conservative Navy admirals who would like us to have a 200-mile territorial sea just to keep ghosts from coming into it. The United States, despite this overwhelming economic interest and despite its overwhelming naval power, which we listened to Dr. Knauss outline today, nevertheless got itself into a Law of the Sea Conference. I would hate to attribute really generous and kind motives to the United States, but I am afraid there is a little bit of that in the United States' motivation; we would like to have a Law of the Sea Conference. Why? I think the answer is best provided by going back over Dr. Craven's remarks of yesterday. Dr. Craven implied, or made it explicit, I am not sure which, that unless we use force to contest the claims of other countries, we were accepting those claims. Accordingly, Dr. Craven would have to argue if he were to continue to be logical, that the United States should have until now, and should continue to exercise all of its rights on the high seas if it wants to preserve those rights.

That means protecting United States fishing boats. It means protecting United States petroleum company oil exploration ships; it means exercising freedom of navigation; it means transiting territorial seas, which are more than three miles wide, submerged. It means

all those things; and I think to all of you and to me and to my Department and to the United States Government, that means conflict, and it does not mean localized conflict. It means conflict helter-skelter around the world.

The United States is not interested in conflict. The United States does not want conflict. The Department of Defense also does not want conflict—if you will allow me the luxury of distinguishing it from the United States for a moment; many people do. We would like to see the United States be able to do its own "thing." We can preserve our rights if we want to without a Law of the Sea Conference and nobody should make any mistake about that.

United States petroleum companies, despite their best counsel, are wrong when they think that the edge of the continental margin for exclusive sovereign rights over the resources is one way of getting what they want. It is just not true. United States petroleum companies can hardly be hurt by any regime which is developed either for coastal seabed areas or for deep-seabed areas. The U. S. tuna industry and the shrimp industry can be hurt. United States scientists can be hurt. In fact, these are the only three major United States interests that can be hurt, and if some of you think the Department of Defense helped the United States Government get into a Law of the Sea Conference to save tuna and shrimp, you are quite mistaken.

I have seen it argued in some Latin American publications that our real interest in fighting with Peru, for example, is to save our tuna fishermen. Indeed, many government officials sometimes give that atmosphere to their statements when they testify before Congress. It is just not so. No government like the United States is going to go out and risk destroying its foreign relations with its Latin American neighbors to protect the United States tuna industry. We are not in this to protect any single interest of the United States Government. We are in this largely to see if there is not a way that we can live side by side exercising those rights that are important to us, with other countries exercising rights that are important to them.

I did confess that we would like to see a Law of the Sea Conference take place, and we would like it to be successful. Who else wants one? It is absolutely clear that most Latin American 200-mile countries do not want to see a Law of the Sea Conference right now. I do not really need to prove that. You only have to go back to the last General Assembly and see where the pressure was, to put in those magic words, "convene a Conference in 1973 is possible." Where did that pressure come from? Most of the members of the General Assembly wanted to say "convene a Conference in 1973," no "ifs, and, or buts" about it.

If we take the Latin Americans out of the picture for a moment—and I think they want to preserve essentially what may be called symbolism, or else they have an extraordinarily hard bargaining position, or both; I think both is the likely answer—where is all the pressure for the Conference?

I have sat through the United Nation's Seabeds Committee meetings for the past several years, since they began, and there was a hue and cry from developing countries throughout the world—countries with long coastlines, land-locked countries, shelf-locked countries—for a new regime for the seabed. They did not have much interest in the territorial sea—although parenthetically I might add that free passage through and over international straits is not just a right which the United States and the Soviet Union will enjoy; it is a right that everybody with ships will enjoy. Whether they have large or small ships is irrelevant. Many of them have merchant ships. They were not interested in that; they were interested in fisheries and the seabeds, and they were interested in seabeds because they wanted to share in the revenues from the seabeds, and because they wanted to gain technological expertise.

The United States Government saw no inconsistencies between its national objectives in the sea and the national objectives expressed by most of these developing countries with respect to the sea. Accordingly, it seemed possible to set out the general parameters of an international agreement which would once and for all settle what has come to be assumed as a chaotic situation in the ocean. We failed to see why it was not possible for the United States military establishment to go on using the seas pretty much as they have before, perhaps beyond a 12-mile territorial sea limit instead of a three-mile territorial sea limit, while at the same time being sure that the developed countries in Africa, Asia, and those moderate Latin American countries who wanted to join could go on enjoying the benefits they got, or thought they would get, from unilateral claims. We see all that as possible.

We heard one speaker refer yesterday to political will, or the lack of it. I am not sure there is a lack of political will; I think there is great political will in some quarters. I think the United States has demonstrated political will by setting out the rather detailed, rather comprehensive proposals which it might have tried to spread out over a long period of time; and all of these proposals are designed to be fair. They may not be fair; we need to know what is wrong with them. We need to be told so that they can be adjusted. Other countries need to make proposals which they think are more fair. That is the way a negotiation takes place.

On the other hand, we have a bloc of countries who do not seem to be interested in furthering negotiations. They are interested in securing the 200-mile territorial sea or some semblance of it, and I think exclusive resource zones are tantamount to territorial seas. They want to make that a *fait accompli*. Then a Law of the Sea Conference can be held because it will endorse a 200-mile position. I do not think that position serves international community needs. It does

not serve developing countries' interests. It does not serve maritime powers' interests. It does not even serve the needs of those of the developed countries who show some interest in broad boundaries with respect to resources. Here I refer to countries like Canada or Australia; these are countries which do have an interest, as the United States has, in broad boundaries of jurisdiction for some limited purposes with respect to resources.

But the 200-mile territorial sea or its functional equivalent is unnecessary to protect the interests of these developed States. The United States could have chosen to pursue that route. It would have required no conference. We could have just sat back, waited until the 200-mile limit spread outside of Latin America and became thereby more respectable, and then gone to the 200-mile limit ourselves. We could have continued to exercise our rights on the high seas as we saw them; I have no doubt of that. There is a big difference between respecting 12-mile claims when there are more than 50 of them in the world, and respecting 200-mile claims. If you listened to Dr. Knauss' eloquent statement today, I cannot see how you could assume that the United States would simply observe 200-mile territorial seas around the world. I am not even sure, if the next Law of the Sea Conference failed, that the United States could observe them off the coast of Peru or Brazil or any other country.

Where are these countries that are damaged by a U. S. military presence or a Soviet military presence in the oceans? When have they recently exercised their right of self-defense? When has there been an imminent overwhelming threat of armed attack by a United States Polaris submarine on a developing country? The fact of the matter is that a desire to keep the military away from coasts is a bogeyman. There is no reason for it. It is unnecessary. If developing countries want to use it as a bargaining lever, that is one thing. "Hold out on military issues because they are behind this Law of the Sea Conference, and we'll get everything we want," they might say. I think the time is rapidly passing when this will be an effective strategy. I think if it continues much longer, the United States Government will simply have to decide what its non-negotiable issues are. Tell the world, and watch the Conference either fail or succeed on our terms. So far that has not been our approach. It has not been our strategy. We have taken a most accommodating look and have tried to accommodate and will continue to try to accommodate most countries that tell us what their problems are.

We do not see much point, though, in accommodating mere symbolism. Two hundred miles is irrelevant. Suppose it were 300, or 400, or 172, or 12. What is most important is the balance of rights and obligations beyond some narrow band of territorial sea, and I do not think there is anyone in this room who thinks that the United States is not prepared to deal quite reasonably with the resource interests and the pollution interests of most coastal States. But we also want to be sure that we deal reasonably with the other developing countries of the world, and they are in the majority—not the Latin American countries. We should focus on meaningful rights and obligations and attempt to produce a treaty which protects the real interests of many countries, and I think that can be done.

J. J. Syatauw, Institute of Social Studies, The Hague, The Netherlands

Tuesday morning, June 22

I must admit that I still feel somewhat puzzled about the reason why the organizers of this conference chose me to be on the panel to talk about the military role in the ocean, because I have never been in the military service—at least Professor Knauss has. I thought at one time that perhaps they chose me because they knew that my father was in the military service. But then they should have known that he was not in the Navy, but in the Army. That is hardly the right background to talk here.

I will assume therefore that this panel was chosen with the intention of getting people from various parts of the world, and that my presence is due to my coming from the developing world. I would therefore like to make some comments from this particular angle. Other aspects of the topic of this morning have better been handled by the other members of the panel.

I am somewhat distressed by the flood of facts and all the technical data that we have just heard. Although their relevance and importance are obvious, still it is somewhat startling to hear all these facts. One can only stutter such non-comprehensible words like MIRV, ULMS, and similar terms, without being capable of fully understanding them; and perhaps it was a good thing that Mr. Ratiner was not allowed to open up more classified material because then I would have been completely drowned by these words.

I have read Professor Knauss' paper with great interest. I think it is an excellent paper. It gives a clear account of the United States position with regard to the military role of the ocean. In fact it is kind of a position paper of the United States which takes into account the adverse position of the ever-present other naval superpower, the USSR.

Professor Knauss has deliberately refrained from making an effort to provide us with the additional picture of the military interests of the smaller naval powers, e.g. the developing countries, since, as he admits himself, he does not feel qualified to do so. One disadvantage of this fact is that his paper might leave us with the general and final picture of two huge

naval powers facing one another over a wide stretch of ocean with, in the distance, a few worried bystanders (the developed countries) who are trying to hide themselves behind the ineffective protection of 3, 6, 12 or even 200 miles of water, while a lot more is going on under the surface of the water.

It would perhaps be good if I could add to this discussion the missing dimension of the role of the developing countries, in order to get a more complete picture of the military role in the ocean; even though what I will be able to provide here may not be very much. I will not go into all the details, because fortunately Mr. Atam has already dealt sufficiently with some of these matters (e.g. the 200-mile limit, innocent passage, the use of ocean tankers and undersea tankers). Therefore I would limit myself to some general comments and we can always come back to more precise points in the discussion.

I think there are at least three points that are worth discussing here. First of all, I would like to say a few words about the dialogue between the two big powers and its possible impact on the formulation of policies. Secondly, I would make a few remarks about the limits of the military interests of the developing countries; and thirdly, a few words about the options and alternatives open to developing countries if and when they are faced with new proposals such as those that may be put forward in the Conference of 1973.

On the first point, Professor Knauss has quite correctly emphasized the occasional parallel interest of the navies of both the United States and the Soviet Union. I might be wrong, but underlying his arguments seems to be the thought that for that same reason (the parallel interest), the two superpowers will, or may, often adopt a common stand (e.g. with regard to the freedom of movement of submerged nuclear submarines on the high seas or even in the territorial sea). If that is indeed what he meant, then I beg to differ with him. If not, I would like to clarify my point a little more.

I think that the position taken by the two superpowers is not in the first place determined by a similarity of interest of similar navies in similar conditions. At least as important, if not more so, is the different ideological bases of the policies of each of the superpowers. In other words, it might very well be possible that while technologically their interests are the same, one of the powers would for ideological reasons still prefer to refuse taking a common stand, in order to deny the other power any equal benefit, particularly if the former power believes that the original situation still holds some special benefit for himself. In fact, yesterday Ambassador Mojsov of Yugoslavia stated here quite categorically—and I hope that I am not misquoting him—that the interests of the big powers are mutually exclusive and irreconcilable.

Assuming therefore some continuing big power disagreement on certain major issues and taking into account that in 1973 States will have to express their preferences not only in words but in votes as well to get conventions passed, the role to be played then by others than the big powers (particularly the great number of developing countries) will be crucial, even more so than in 1958 since more than 40 new States have entered the world community since then. This would be true even though the developing countries would probably not often vote as a bloc.

This brings me to my second point, the limits of the military interests of the developing countries. Professor Knauss demonstrates in his paper convincingly that while the military interests of the developing countries do not count at all in an all-out nuclear war, the situation is quite different in a case of limited or flexible response, in particular in a conflict between two lesser powers. In the latter case, as well as for police functions, the small States keep an interest in the military role of the ocean. Professor Knauss has given some figures on the naval power of some developing countries. In a military sense they seem pitiful. The most formidable ship they have is a destroyer or a patrol boat. Most of these countries have even less. In the eyes of military experts this may indeed seem rather poor. However, I for one do not think that there is a need to regret or bemoan the weakness of the naval power of developing countries. I will give you my reasons for that, fully aware that these are perhaps of an ideological nature, and therefore less objective or scientific. Still I believe that my judgment in this matter is correct.

In the first place, as the developing countries are too small to play a significant role in the military control of the ocean, there is no real need for them to contribute to the escalation of the nuclear armament race on the ocean either.

Second, and I regard this as the most important reason, the major task and objective of all developing countries today remain the development of their national communities, and not only in the narrow sense of increasing their GNP or their per capita income, but also in the more comprehensive sense of development as the introduction of significant and structural changes in the social, economic and political systems of their nations. This arduous task will already require all efforts and energy, mental as well as material, of the developing world. A defense budget of a developing country that goes far beyond the minimal requirements of security maintenance and police tasks for its navy seems, in my opinion, to be unnecessary, if not even irresponsible. In other words, the general interest of the developing countries in the ocean does not lie in joining the traditional or nuclear arms race, but rather in releasing or saving resources from military projects to be used on behalf of the development effort of the nation. In this way they have a better chance of increasing prosperity at home and promoting peace in the world as a whole.

However, this does not mean that developing countries should be indifferent to the shaping of new policies

and norms with respect to the law of the sea. This leads to my third point.

My third and final remark concerns the options and alternatives available to the developing countries when they have to make up their minds about proposed new rules of the law of the sea in general and of those relating to the military aspects in particular.

I mentioned a few moments earlier the crucial position of the developing countries at a new Conference of the Law of the Sea in 1973, where in the end the results of the Conference (i.e. the formulation of one or more conventions) are determined by the casting of votes. I am not suggesting that the result of a conference is really only decided by counting votes. There is obviously more to it than that; but when the chips are down—as the 1958 and 1960 Conferences show—votes are decisive. While we will probably not see a solid united front of developing countries, a reasonably strong stand by a majority of these countries on certain major issues does not seem impossible.

What could that stand be? It is a fact that in many an issue, particularly when we are dealing with such complex matters as those involved in the military aspects of the ocean, the clearest elaboration of a possible stand is often given by the advanced maritime nations who are most directly involved with the issues concerned. In such new and complex matters, developing countries often do not have, or do not yet have, the time to formulate a clear position. They will often arrive at their ultimate position by first studying the stated positions of the above-mentioned maritime or naval powers and formulate their own stand as a response to, or a variation of, that of the advanced countries with large maritime fleets and navies.

If one takes this into account, the attitude of each of the developing countries would be one of three alternatives. Firstly, a developing country could reject the position of the big naval powers. Secondly, it could adopt the same position, and thirdly it could formulate a different and special position. Since my time here is running out, I will deal only with the third case.

Here again the possibilities are three-fold. It is first of all possible that a developing country would, on the basis of what it considers its own unique position, take a unique stand different not only from that of the advanced countries but also from that of other developing countries. This is true, for instance, for the land-locked or shelf-locked countries. Secondly, it is also possible that developing countries which cannot yet see all the implications of the available positions will therefore refuse to take any position and just abstain when any proposal is brought to the vote. We know, of course, that a large number of abstentions could in fact lead to a rejection of the proposal. Finally, if the developing countries do have to choose, it is quite possible that not being able to see the future consequences of their choice they would protect themselves by backing that proposal that seemingly gives them the maximum benefit. In other words, if they had to choose between a zone of territorial sea of 3, 4, 12 or 200 miles, they would always select the 200 miles, and only later will they decide whether to take a more limited position.

The important thing is therefore that in complex issues the position of the developing countries will frequently be derived from the initial stand taken by advanced countries. If this is true, then it is somewhat regrettable that the position of these advanced countries is not always clear and unambiguous. Professor Knauss' paper quite clearly brings out the fact that while on the one hand the recent Geneva draft treaty on seabed arms control has been hailed as an important achievement, it was on the other hand quite obvious that the agreement could only be reached because its importance was quite limited. The adoption of the treaty which outlaws the emplacement of nuclear weapons on fixed installations on the seabed has become less important at this moment since the importance has now shifted to the movable platforms. There is no provision in the treaty outlawing these platforms.

In addition, it has been reported that at Geneva the United States had at first stated that the above-mentioned draft treaty would also apply to submersibles ("creepy-crawlies") and artificial islands, but later on the United States has apparently changed its mind. The facts also show—in contrast to what Mr. Ratiner seems to think—that there is no reason to boast about the attitude of the United States. There are still many ways for a country to seem generous but at the same time take care that its generosity does not hurt its own interests.

Discussion

Tuesday morning, June 22

deSoto: Mr. Ratiner has told us it is absolutely clear that Latin American countries do not want a conference on the law of the sea. I am to participate in a panel on Thursday afternoon on the question of prospects for agreement at the Conference in 1973. I think that is a more proper context to rise to Mr. Ratiner's challenge than this. I do not plan to rise to the challenge at this stage beyond saying that the statement is false. Right now I prefer to address myself to the question at hand.

Mr. Hirdman has spoken on the different interpretations of the principle of use of the oceans for peaceful purposes. What are peaceful purposes? One of the interpretations, he told us, is that everything is permitted which is not expressly prohibited. Peru and I think, most developing countries do not share that point of view, and I would invoke, as Professor Mc-

Dougal invoked yesterday, Article 2(4) of the charter of the United Nations. Mr. Hirdman has also referred to the so-called seabed denuclearization treaty as a disarmament measure. I think he was using shorthand—verbal shorthand—because if we start from the premise that everything not expressly prohibited is not necessarily therefore permitted, then this measure is neither disarmament nor self limitation of armaments. We were told in the statements expounding the draft treaty on so-called denuclearization of the seabed, that it was a measure which required certain urgency of adoption because it could be of strategic interest for the nuclear powers to emplace such weapons in the area. Implicitly they were telling us that there was nothing on the seabed deployed at this stage. If there is nothing on the seabed deployed at this stage, I think that we can cast a shadow of a doubt at least on the sincerity of a measure which allows the deployment up to 12 miles on the seabed of something which is not there deployed at the present time.

So, I would restrict myself to the item at hand by simply asking Mr. Ratiner what he believes are the prospects either from the Defense Department or from the United States Government's point of view for complete denuclearization of the seabed.

Ratiner: First, Mr. deSoto, I would like to point out that I did not specify which Latin American country did not want a conference in 1973. I deliberately did not specify this because I am sure there are varying degrees of support for the view that there should be no conference, or if there is a conference, that it should be delayed until the 200-mile territorial sea is a *fait accompli*. I am not sure that I would want to characterize any one country's view on that subject. On the prospect of denuclearization of the seabed, what is there to denuclearize on the seabed? If you are talking about submarines, the prospects are very dim indeed. I know of nothing else. Do you know of something that should be denuclearized?

deSoto: I do not know of anything else. I simply want to preclude all possibilities.

Ratiner: The prospects for prohibiting nuclear powered submarines, or nuclear submarines carrying weapons, from the seabed I would think are very dim.

Craven: Since I disagree with almost everything Mr. Ratiner has said, as I heard it said last week in a similar statement, it is not just wrong, it is not even right. It is probably superfluous for me to say that the position that you presented was egregiously misrepresented.

This does give me the opportunity to clarify that position in clear unequivocal detail. First I said that pending the possibility of an agreement that it may well have been that the present United States policy, which is a non-conflict policy, is wise because we do have the opportunity for a conventional law of the sea; and the test of the wisdom of that policy would be that Convention.

In the event of nonagreement in 1973, clear unequivocal nonagreement, and in the event that there is a unilateral extension of jurisdiction by one nation which another nation regards as beyond customary international law, then other nations should have no hesitancy, or no choice or no option. If they do not wish to see this law become customary international law, they should exercise the option of testing it; and I call your attention to words that I used to test it by its flagships and instrumentality. I did not by that intend to indicate the use of force or the implied use of force.

Instrumentalities involve many things: they involve legally attached liens, they involve legally imposed economic sanctions, they involve political sanctions, they involve petitions to carry the orders to the World Court, the Organization of American States, the United Nations. They include the continuance of the innocent passage of not only commercial ships, but military ships on purely peaceful missions. They include exerting the normal peaceful right in that area on a continuous basis as the only means for preventing what I think will take place, namely the *de facto* assertion of a unilateral independent right in the event of nonagreement and in the event that a Conference does not appear to be likely in the imminent future.

McDougal: Mr. Chairman, I think you have had a very brilliant principal address, and I took particular pleasure in the comments too of my former students, Mr. Atam and Mr. Syatauw. My Syatauw has raised some questions that were emphasized in earlier discussion. I think we have talked too much of the interests of particular States and not enough of the inclusive interests that all the States share. I would like to make three points in developing this theme.

These points include, first, emphasis upon the inclusive interests of all States; secondly, the larger context of power balancing in which military problems have to be appraised; and finally, the primacy of security above all other values in any immediate reshaping of the public order of the oceans.

In terms of the inclusive interests of all States, I think we can see that security is indivisible today. It is indivisible around the globe. This indivisibility includes the land masses as well as the oceans. I think also we must keep in mind that security in the world today is maintained by a very delicate balance of power between the United States and the Soviet Union, with Communist China gradually coming into the picture.

The United Nations expresses the high aspiration to which we all subscribe that violence, intense coercion, is not to be used for change, for disruption of the peaceful processes of producing values; but I think as realists we all know that on a fundamental, effective power level today security is maintained by a certain balancing of power. We are not likely to have much opportunity for the production and distribution of other values if this balancing of power is disturbed. This balancing of power extends not only to activities on the oceans but to activities on the land masses.

As a long-term objective, I would share with our friend from Peru the aspiration that not only the oceans be demilitarized, but that the whole globe be demilitarized. I would, however, urge him, indeed all of us, to very carefully appraise every particular proposal about the law of the oceans in terms of its effect upon the necessary balancing of power in the world, and upon the interrelations of activities on the land masses and activities on the oceans. The new States could share interests here that have not been made fully explicit. They may have interests, as Dr. Syatauw says, in a comprehensive world order, in an order which cherishes freedom and human dignity. They may want to take sides on particular issues in a way to promote the kind of world in which they want to live and not some short-term interest about what is immediately going on off their shores.

To come to my third point, I think we should all recognize, not only in our deliberations here but everywhere, that security, the protection from unauthorized violence and coercion, is a basic value. If we cannot maintain security, we cannot have any kind of law. The very notion of law is decision in accordance with certain uniformities established by community expectation, and not by arbitrary violence. We cannot get this reconstruction in social structures about the world, not only in our developing but in our developed States, that will produce the kind of world we want to live in unless some measure of security is also established and maintained. There is a complete interdependence on a global scale in relation to security and all these other values. There is an interdependence that transcends even the interdependence in the multiple uses of the oceans.

If we can use the oceans to draw upon all the vision, the energies, the capital, the capabilities, the skills of the world for the greater production and wider distribution of all values, if we can establish security on both the oceans and land masses, then maybe we can achieve some of Dr. Syatauw's goals.

I would only urge you: don't make decisions on any of these problems in the light of very short-term special interests, but rather in terms of the enduring, aggregate inclusive and exclusive interests of all States.

Hirdman: I would like to make a short comment and register a differing opinion. I do not think the balance of power is very delicate; it is very stable. It depends on the missile forces of the two superpowers, essentially the invulnerable submarine missile forces. I do think the United States could scrap a large part of its land-based missiles, as could the Soviet Union. I think there is a fallacy in thinking that any reduction in armaments endangers a nation's security. You need to scrutinize closely the concept of national security. There is a momentum in the arms race that one should beware of.

McKnight: Mr. Ratiner said the NPC position is wrong; in one sense he may be right. I think that calls for an explanation as to how the NPC study was formulated. It was done specifically at the request of the Secretary of the Interior back in 1968 to make a comprehensive examination of the geology, the economics, the legal aspects, and the need for energy in the future. In other words, this was a matter upon which the petroleum people could give some expertise.

When the NPC Agenda Committee met to consider whether the study should be undertaken, a representative of the State Department was present. He expressed the interest of the State Department in having the NPC make the study in order to assist the Department in determining U. S. policy positions. The study was made including recommendations, and submitted to the Secretary of the Interior with, of course, copies to other interested agencies of the government, such as Defense and State. We did not have any military experts participating in the study. We were not asked to take military considerations into account in our recommendations, nor would that have been appropriate. In fact, the Council's report states specifically that military implications of seabed use were excluded. It was not up to us to decide what the U. S. position after all should be. We only made the study from the standpoint of the industry. To the extent that there are other considerations which the government must take into account and come to a position on, to that extent the industry may be wrong and Mr. Ratiner may be right.

Miles: I wonder if this discussion about military interests has not been too narrowly confined to the ocean? As Professor McDougal pointed out, one cannot ignore the question of disarmament on land at the same time that one is considering the military interests of the ocean. No one here so far has mentioned the problem of proliferation. There are some of us who think that the Nuclear Non-Proliferation Treaty is too little and too late; and one might reasonably look forward to a world of about ten or eleven nuclear participants, most of whom will not have a credible second strike capability. Could Mr. Ratiner say anything about the effects vis-a-vis the oceans of a world in which we have that number of nuclear participants? In particular, it seems to me, that at least one short-run impact might be to impose a much greater symmetry of interests on the superpowers than Mr. Syatauw and Mr. Mojsov seem to think is the case; but what other effects might there be?

Ratiner: I am not certain that I fully understand the question. If the question relates to demilitarization in the oceans generally, if what is underlying the question is a concern that there will be a certain number of countries with a nuclear capability in the ocean in years to come, I think the issue is a proper one in a disarmament context. We have not been aware that the Law of the Sea negotiations plans for 1973 were for the purpose of taking on disarmament questions. We have found, despite some criticism of the Seabed Arms Control Treaty which I have heard this morning, that disarmament negotiations are best kept out of very large unwieldy and unmanageable conferences.

Perhaps other things in the law of the sea are also too important or too sensitive to be put into a large unwieldy Law of the Sea Conference, but we are trying; although I would not like to see the issue become so complicated that an agreement in 1973 was impossible.

Mochtar: Dr. Mochtar from Indonesia. I am in full agreement with Professor McDougal's suggestion that we should talk about security interest, not in terms of national interests only, but that we should talk about the question of the community security interests in global terms. I fully agree with this; only the tone of his presentation has me a little bit worried. There seems to be an identification of the community perspective with big power security perspectives. I submit that if you want to solve this problem once and for all, you should take another attitude. We have heard the suggestion that maximum enlargement of the "areas of mutual obliteration" is best, so that in this view the narrower the territorial sea the better.

I submit that there are other views held by the coastal developing nations, and they believe that an enlargement of territorial seas would help. We are thinking in terms or categories mentioned by Professor Knauss, who said that besides the "balance of terror" concept, one has also the concept of neutralization, disarmament, or the exclusion of certain uses of the sea. So the question is not that simple.

If Mr. Ratiner's statement on the participation of the United States in the Conference on the Law of the Sea as an expression of the Department of Defense is accurate, then its willingness to discuss these global, inclusive security interests with other nations, perhaps less powerful, is encouraging. Then we are grateful that these other views will be taken into account because ours is a new world. This is not a world which is run by just one or two States, however big they are. But the effect of Mr. Ratiner's statement was sort of spoiled towards the end when he queried, "Who is really damaged by the presence of United States Naval power?" (Or, for that matter, USSR naval power.) By saying this, he has taken back what he said in the beginning. Why cannot he leave the developing countries the choice of determining for themselves what they *are* afraid of or what they are *not* afraid of? I hope that it does not reflect the Department of Defense position, but rather his personal position.

Ratiner: I think that the issue here is somewhat more serious. I do not think it is appropriate for the next Law of the Sea Conference to make decisions based on what some countries are afraid of or not afraid of. If there is a legitimate fear, if there is a basis for concern, if your security is in jeopardy, then by all means let us talk about it and find some solutions; but let us not cave in to the idea that just because this is a new world—and we share that view—that we have to make our treaty law consonant with what may be irrational fears.

We used to say that the United States could barely survive with more than a three-mile territorial sea. Perhaps we were irrational. We corrected that. I would like to see developing countries take a good long hard look at their interests. Of what value are expanded territorial seas to nations which cannot patrol them? I think expanded territorial seas in many of the smaller countries of the world tend to create a kind of territorial sea paranoia. You think there is somebody out there in your territorial sea, but you have not got the capability of finding out whether he is or not. I do not know that it's particularly useful to have that kind of psychology freely rampant in the world.

If you do not have patrol boats to patrol this enormous territorial sea—and I can tell you quite frankly the United States does not have the capability to patrol its own territorial sea if it were extended to 200 miles —to what end has your territorial sea been expanded?

Mochtar: The consideration was that there being 13,000 islands, each of which theoretically could have a territorial sea of its own, it would have been a complicated business indeed to patrol that kind of area. But these seas happen to be semi-enclosed seas. They have comparatively narrow inlets and outlets; so by changing the structure—that is, by regarding the archipelago (islands and intervening waters) as one unit —we simplified the patrolling problem by just patrolling the outlets and inlets. We do not mean to hinder the freedom of the high seas. If we want to restrict the use of the passages for warships, then that is because we happen to think that the bigger the area of neutralization the better.

So this is a diametrically opposite position, but I think we are entitled to a different opinion. Even under the existing laws of war I think you should not feel uncomfortable, because if the neutral is not able to defend his neutrality, the party at war is free and indeed entitled under international law to disregard the neutrality of the coastal State. We have the "Altmark" incident to illustrate this. So the interests of the parties at war are not really jeopardized under this concept.

Syatauw: I would like to join issue with what Mr. Ratiner just said, for the very reason that I would not like to accept the view that one can only make exclusive claims to a certain territory if one can actually control it. That has never been a well established principle, neither for land territory nor for sea territory.

Ratiner: I have one brief comment. First, I did not mean to suggest that you should only make an exclusive claim if you could patrol it. I simply asked what the utility of such a claim was if you could not patrol it. Second, I do not think people should make any exclusive claims; that is what the Law of the Sea Conference is for in 1973.

Gorove: I would like to address myself to two things: one, a statement made by a gentleman, and the other a general remark which can be answered by any member of the panel. I believe, if I recall correctly, that Mr. Hirdman said in relation to the negotiations that the developing nations did not very well see the utility

of a treaty banning the emplacement of nuclear weapons on the ocean floor. Is that correct? If so, I do not believe that the Geneva disarmament negotiations and the general discussions in the United Nations bear this out fully. I think the developing nations have criticized the agreement, the initial draft treaty, and that was the major reason why several drafts had to be submitted. Specifically they wanted to widen the scope of the agreement.

My other remark relates to the frequently mentioned so-called "peaceful uses" of the ocean floor. We have encountered such terminology in other areas of the law in recent years, notably in nuclear energy and space law. My question here merely relates to the usefulness of the concept of "peaceful use" or "peaceful purpose." In relation to atomic energy, for instance, the Statute of the International Atomic Energy Agency, if I recall it correctly, makes it clear that it is one of the responsibilities of the Agency to make sure that the assistance provided by it will not be used to further military purposes. In other words, the "peaceful" purposes or uses are contrasted with the "military" uses or purposes.

On the other hand, if we look at the United Nations Charter, we find that the opposite of peaceful is aggressive. At the same time, if we take a glance at Article IV of the Outer Space Treaty, we will find no definition or indication of the meaning of peaceful purposes. I believe the United States' position in relation to the Treaty has been that the opposite of "peaceful" is "aggressive." It seems to me it would be much better to abandon this artificial distinction and identify the permissible or prohibited activities instead.

If one takes a photograph, only the ultimate use will tell whether it is going to be used for a peaceful or military purpose. If one takes a photograph, the initial interest in it may be peaceful. If a military man looks at it, it may entail some military use. Therefore it might be much better to identify the particular activity and say, for instance, photographing is permissible from outer space, no matter what the ultimate use will be. Who can tell in relation to a cloud cover photograph what its eventual use will be? For that reason it may be impossible to enforce a prohibition based upon a largely unworkable distinction. To some extent the same thing applies in relation to research. Who can tell with certainty for what types of purpose a particular piece of research may eventually be used? Will it be used for military or completely peaceful purposes? Will it be used by military people for aggression, or for military purposes other than aggression, or for civilian purposes? I believe if one identifies the particular activity, such as the placement of nuclear weapons on the ocean floor or the building of fortifications, installations, etc., the problem area is considerably narrowed. To be sure, questions of interpretations would still remain, but the area for possible disagreement will be much less.

Hirdman: What I said about the disarmament negotiations on the Seabed Treaty was that, to my knowledge, no countries seemed to question the value of such a measure as denuclearization of the seabed. There was very little discussion of the substance of the Treaty. Most of the discussion concentrated instead on the control issue, how you would control these installations, rather than on whether they were likely to be developed or not. At the same time it is not very evident who would have the means and resources to carry out such control or even the slighest supervision. The other difficult issue in the negotiations concerned the boundaries, and that of course was the main concern of the Latin American countries and some others. They were afraid that any mention of boundaries in the Seabed Treaty would reflect upon their position in the territorial waters issue.

It is true that there were some requests from some countries as to widening of the scope; that one should outlaw all military installations on the seabed. But it was my view that this is not a very rational idea; you cannot isolate the seabed ASW installation from the submarine/anti-submarine activity in the waters above the seabed.

I do absolutely agree with what you said about "peaceful purposes." I think such vague general concepts are very dangerous. What is required is a very clear appreciation of the factual situation and the effects of any new measure. There are similar concepts such as offensive and defensive, strategic and tactical, that are equally meaningless.

Solomon: I make these remarks with a certain amount of trepidation. I have not been able to make extensive notes while the panel has been speaking, and there have been so many misquotations today and yesterday that I would hate to fall into the same trap again. My remarks are addressed mainly to Mr. Ratiner. He gave us the impression that the United States is in a position today, has been for a long time admittedly, to take care of its own interests and to protect its own rights; and in agreeing to the Law of the Sea Conference it is now displaying evidence of broadmindedness and brotherly love, shall we say, which is not being appreciated. It gives us the impression that if this brotherly love were not accepted wholeheartedly and immediately, the United States would pick up its marbles and go home. I get that impression not only from him, but from his fellow spokesmen of the United States in Geneva and in New York.

I hope I am not being too unjust when I make this comment. I am all for brotherly love. In fact, it is the root of our problems; but you will forgive me if I say that the history of a great part of the world, not only the United States, does not lend itself to easy acceptance of this sudden expression of brotherly love. If there is a certain hesitancy, a certain reluctance to jump at the offer, then perhaps you ought to remember that it took some of us several generations—some of

us centuries—before we could convince our ex-colonial masters to accept our demands for self-determination; so possibly the United States and other major powers could exercise equal patience in waiting for us to accept their point of view with regard to their new act of brotherly love.

To carry it further, if we are to accept this great willingness to arrive at an understanding with all nations of the world, why does he tell us, in response to Mr. DeSoto, that the chances of eliminating nuclear carrying subs from the seabed are so slim? This is a new field of armament. This is one item, nuclear submarines; there may be others perhaps which are indicated by another speaker, but he was dealing with nuclear subs alone. He says this is a new field, and we have the opportunity now to keep it once and for all free of arms and, yet, he tells us that the chances of eliminating nuclear-carrying subs from the seabed are slim indeed.

Mr. Hirdman has indicated, and so have other people, that both the United States and USSR could scrap a lot of their nuclear weapons tomorrow without upsetting the balance of power. Why should it be necessary to introduce weapons into this new field? We have the chance, once and for all, to keep it free, to keep it a peaceful zone, and yet with this new spurt of brotherly love, we are told the chances of keeping the seabed and ocean floor free of weapons are very slim indeed.

I have another point for Mr. Ratiner. He says that the United States is not interested in symbolism, but that the United States is interested in listening to the views and taking into account the interests of all countries, not only Latin Americans. My country is a member of the Latin American Group of the United Nations. We do not have a 200-mile sea limit, but we agree there is justification for 200 miles in some areas. And if Mr. Ratiner is interested in the views of all States, why does he so summarily dismiss the question for consideration of land-locked States? Does he not believe that even under the umbrella of an overall international regime there is hope? This is the place for regional arrangements. It has occurred in the Caribbean and in parts of South America.

Ratiner: With respect to the two points, my comments were very pragmatic. First, let me object in a perfunctory way to characterizing the United States position as benevolent or brotherly love. I would prefer that you refer to it, if I may suggest, as enlightened self-interest. Within the content of this enlightened self-interest, you may be aware that in many important respects the present U. S. oceans policy was motivated by what we already knew to be the views of many developing countries as expressed in the United Nations. We were trying to accommodate them.

You also were aware, I am sure, that within the United States there are many pressures and forces at work with an interest in broad jurisdictional limits of the United States. We did not think that broad jurisdictional limits could possibly accommodate the interest of most developing countries. For defense and commercial reasons we did not want them. We did not think they were suitable in terms of sharing in the revenues of the seabed or increasing the technology available to developing countries. We did not see how it was possible to square broad exclusive jurisdiction with the interests of the developing countries at large. Accordingly, we opted for the narrowest possible boundary.

There are also forces at work in the United Nations to undo the United States policy, and we have the Latin American position to contend with, which is well known. If we make a proposal which is good for most developing countries, let us not let it be corroded in the next two years by forces at work in the United Nations or in the United States, or in certain other industrially advanced countries. Let us give it a way to succeed. The only way we have a chance to have it succeed is if we impatiently ask other countries to come forward and state their views and make it a living negotiation instead of a one-sided negotiation.

With respect to the question about nuclear submarines, I was even more pragmatic. I just do not think it is going to be done. It is not a question of desirability. I think many of us may think that these various disarmament measures are desirable, but we have to evaluate what their chances are of success; and right now I would not have high hopes for denuclearizing the ocean. It is not the kind of subject one needs to pursue when there are so many other fruitful areas for an accommodation.

Third, with respect to your comment on symbolism, we do not reject it out of hand. There are clear ways of accommodating the interest of other Latin American countries without the need for using a magic number. Magic numbers have no value. Three-mile territorial seas was a magic number for us; 200 miles has also been a magic number. These are not such magic numbers any more. I do not think that I am being critical of the substantive needs of Latin American countries; I think we sympathize with those. But I am being critical of the obstinacy over symbolism.

Takabayashi: My name is Hideo Takabayashi, Ryukoku University, Kyoto, Japan. I would like to remark about the contents of the negotiations for the limit of the territorial sea. The United States is proposing a 12-mile territorial sea coupled with freedom of transit through straits and preferential fishing rights of coastal States beyond the territorial sea. But it seems to me very difficult for coastal States to admit free passage of warships and military aircraft through and/or over their territorial straits. Therefore, I think the assurance of non-hostile and unharmful nature of such passage itself must be provided for coastal States. If we wish to establish a stable regime for international straits, I think we should also pay proper regard to the security interests of many coastal nations.

Extension of Fishery Jurisdiction

Hiroshi Kasahara, Associate Dean, University of Washington College of Fisheries

Tuesday afternoon, June 22

Statements made by various delegations at the March meeting of the expanded Seabed Committee clearly indicate that fishery problems are likely to be among the most controversial issues to be negotiated, and that debate will be focused on the question of control by coastal States. This has been predicted by fishery people. Fisheries are important to many of the developing countries, which make up the overwhelming majority of the United Nations membership. The living resources of the sea are a readily accessible source of animal protein food and provide means to earn much needed foreign currency. The situation is not simple, because some of the developing countries have rather well developed fishing industries, while some of the developed countries have weak fisheries and seek protection against foreign fishing off their coast. Although the economic importance of such fisheries in the developed countries may not be great, the social and political implications of international fishery problems are still substantial.

It is perhaps useful to note how well some of the major uses of the sea have been served by the existing regimes based largely on the traditional concept of free access. These include navigation, shipping, communication, scientific research, and recreation. Even the exploitation of mineral resources has not caused insolvable international conflicts. This is admittedly an oversimplification, but it is generally true. Although many nations might look upon such freedom as inequity because of their limited participation, not much real damage has been done in those aspects of use of the sea. The major exceptions to this general notion are fishing and pollution. After hearing the discussion this morning, I am not saying anything about military uses.

Free access to fishing on the high seas may have served to increase food production from the sea, but it has led to numerous international conflicts and necessitated almost continuous negotiations between nations, resulting in an extremely complex network of international agreements. Most of the actions taken to extend national jurisdiction in one form or another have been motivated by a desire to control the exploitation of living resources. Fishery interests have also created such concepts as an exclusive fishing zone, preferential rights of coastal States, as well as the allocation of resources in international waters. Frustrated by the shortcomings of many of the existing international agreements, more and more nations consider the extension of national jurisdiction by coastal States a better way of dealing with international fishery problems.

My discussion here is largely restricted to the question of fishery jurisdiction, and does not cover such important aspects as various other forms of allocation, the scientific basis of international management, problems of enforcement, and assistance to developing nations as an important element of international cooperation for fisheries. I have to make it clear that I am talking mainly about what is likely to happen during and after the 1973 Law of the Sea Conference rather than what, I believe, should be done.

Extension of fishery jurisdiction by coastal States can take, and has taken, a variety of forms. These include broader territorial seas, establishment or extension of exclusive fishery zones, preferential fishing rights of coastal States with respect to all resources or some specific resources, or rights to adopt conservation measures that are binding to foreign fishermen. National jurisdiction might also be expanded through a new definition of living resources subject to the existing Continental Shelf Convention and/or a new seabed treaty. It is also possible that some nations might wish to expand the possible new regime for seabed resources to cover living resources in superjacent waters.

I have no doubt that a very substantial number of countries would prefer a narrow territorial sea as a general rule to minimize potential hazards to important nonextractive uses of the sea, particularly shipping and navigation. The probability of coastal States taking unilateral actions to severely restrict the right of passage for non-military purposes within their territorial seas is rather remote, because practically all nations are beneficiaries of this right and also because such actions might trigger counter-measures of various kinds. Nevertheless, under certain circumstances, some nations might try to restrict freedom of passage for economic gains. However small the probability of such an event might be, the stake is big enough for a number of nations to block a proposal for a territorial sea much wider than 12 miles, or, failing this, to refuse to sign any treaty containing such a provision. Thus, chances are slim for an *effective* global treaty specifying a territorial sea much broader than 12 miles to come out of the Law of the Sea Conference. This would not of course prevent some nations from making unilateral claims to wider territorial seas. If any effective global agreement on fishery matters should come out of the Conference, however, it would perhaps be based on the principle of separating out jurisdiction over fisheries from the total package of national jurisdictions comprising sovereignty, as one of the delegations put it at the preparatory meeting in March.

The Conference may not result in an agreement on fishery issues, but it is rather likely that there will be general recognition, by the majority of nations, of a need to provide for special rights of coastal States in terms of exclusive fishery jurisdiction or other forms

of preferential allocation of resources. Such a principle will be supported not only by most of the developing nations but also by some of the developed nations. Difficulty would arise from the diversity of interests among nations as to the specific formula to be adopted under this principle.

Many nations appear to consider that the simplest way of protecting the fishery interests of coastal States beyond the territorial sea would be the recognition of exclusive fishery jurisdiction within a certain zone beyond the territorial limit, defined perhaps in terms of a fixed distance and/or a depth. It would then be up to the particular coastal State whether it chooses to allow foreign fishermen to fish within the zone under conditions set by the coastal State. Some States might prefer to allow foreign fishing for the resources that are not utilized or very much underexploited by their own fishermen, probably charging the foreign vessels a substantial fee. Arrangements might also be made for such resources to be developed from coastal bases as a condition for allowing foreign fishing. Various other forms of financial and technical assistance might also be included in a package deal.

Another way of protecting the interests of coastal States would be for coastal fisheries to be given preferential rights to all resources within a certain zone beyond the territorial limit (including a right of the coastal State to adopt and implement conservation measures which would be binding to foreign vessels). This would involve problems of determining what portions of such resources or catches therefrom should be allocated to the coastal fisheries concerned, as well as the question of whether the coastal State should have a right to control the exploitation of the resources that are not used by their fishermen to any substantial degree. Under this principle, the formula to be adopted would perhaps vary from case to case.

Preferential fishing rights might also be applied to specific resources important to the coastal fisheries within the areas in which major concentrations of such species occur. This would involve such additional questions as the determination of major areas of distribution of the species concerned and the effect of foreign fishing for other resources on the particular resources in the same areas.

The possibility of a new definition of living resources subject to the existing Continental Shelf Convention, or a broader definition of such resources under a new seabed treaty, also deserves attention, because its impact would be quite substantial. For example, it would require only an amendment to Article 2(4) of the Shelf Convention to include such forms as shrimp and flounders as resources subject to sovereign rights for the purpose of exploiting them. This would provide grounds for curtailing foreign trawling activities at least within a depth of 200 meters and probably beyond. Expansion of national control under the seabed treaty into superjacent waters would have even greater effects, but would perhaps receive less support.

The above brief review of some of the possible arrangements for protecting the interests of coastal fisheries indicates potential difficulties in arriving at an over-all agreement on fishery issues. Nations supporting extension of national fishery jurisdiction as a principle have in mind different formulas to protect their own fishery interests. Among the alternatives mentioned above, more nations might favor exclusive fishing rights within a fixed zone to ensure a greater degree of control and simplicity of implementation. The main question in this case would be how the zone should be defined. A few of the nations supporting this idea may still be thinking in terms of a fixed distance of 12 nautical miles from the shore for their exclusive fishery zones (with a narrower territorial sea). A substantial number of nations seem to favor a much greater distance, up to 200 miles, and/or an area to the outer edge of the continental shelf. Some others are probably considering varying distances to meet the specific situations.

As indicated above, provisions for preferential rights within a fixed zone would be more complex and the actual formula would vary from case to case. Provisions for preferential rights to specific resources that are particularly important to coastal fisheries would be even more complex, and a variety of problems would arise from their implementation.

The treatment of anadramous fishes, as well as marine mammals returning to land for breeding, may be considered a special problem. Different formulas are in practice to handle such resources. For Pacific salmon, the abstention principle prohibits salman fishing by Japan in the eastern half of the North Pacific, while catches of salmon in the western half of the same ocean are shared by the Soviet and Japan. A system of revenue distribution has been applied to the harvesting of North Pacific fur seals. It is possible that during the Law of the Sea Conference there might be a move to establish a principle under which the nations possessing the breeding areas of anadramous species would be given a special right to control the exploitation of such species. Should the United States or Canada, for example, decide to claim very broad exclusive fishery zones, which is a possibility, there would be little incentive for Japan to continue the present North Pacific fishery treaty featuring the abstention principle. Since her withdrawal from the treaty would upset the entire arrangement for salmon in the eastern North Pacific, both the United States and Canada might try to have established, on a global basis, the principle of a special right to anadramous species. This might be supported by some of the European nations in view of recent developments in offshore salmon fishing in the Atlantic.

Considering the wide variety of possible alternatives for protecting coastal fisheries and the diversity of national interest in fisheries, chances do not appear particularly good for the Conference to agree on a specific formula concerning exclusive fishery jurisdiction or preferential rights to be included in a treaty or treaties.

The Conference might try to obtain a two-thirds majority for an exclusive fishery zone with a fixed distance and/or depth. It would be a rather broad zone. It is also possible that the Conference might reach a general agreement to the effect that coastal States are entitled to establish exclusive fishery zones beyond territorial limits or claim preferential rights, but leaving details to negotiations for specific arrangements between the nations concerned. Other general principles or guidelines might be included in the same agreement; I have no time to discuss these today.

The consequences of nonagreement on this matter are fairly obvious: an increasing number of nations will be taking unilateral action to extend their fishery jurisdiction in one form or another. It is also possible that the treaty including provisions for exclusive fishing zones or preferential rights might be signed by a two-third majority and later enter into force, but without participation by some of the key fishing nations. As far as the latter nations are concerned, actions taken on the basis of such a treaty by its member nations would be considered unilateral claims. It is therefore important to examine the responses of distant-water fishing nations to the numerous unilateral actions that have been taken in recent years to extend national jurisdiction.

Such a review will immediately reveal that the responses and the outcome of subsequent negotiations are varied. In many cases, distant-water fishing nations have voluntarily refrained from conducting fishing in the zones claimed by coastal States. In some instances, they have kept fishing at the risk of their boats being seized, while filing official protests. When the zone claimed is not extensive, various agreements have been negotiated. In some cases, arrangements have been made for distant water fisheries to phase out within a period of time, or *ad hoc* agreements have been reached to allow distant water fisheries to continue for the time being subject to the renewal or revision of such agreements. Other types of *ad hoc* arrangements include payment for fishing in the claimed zone, and financial or technical assistance, or use of local facilities, as conditions for permitting foreign fishing. Some of the agreements are on a give-and-take basis. While some foreign fishing is allowed to continue in certain areas within the claimed zone, foreign fishing is excluded from certain areas outside the zone to reduce adverse effects on coastal fisheries. In most cases in which foreign fishing is allowed to continue, the amount of fishing is strictly controlled by limiting the number of vessels permitted to operate, or the amount of fish to be taken, or both. Most of the agreements are for short periods and require frequent renewals or revisions. Sometimes the neighbor countries claiming extended jurisdiction have made reciprocal arrangements to accommodate each other's fishing activity within the respective zones.

Perhaps the most important aspect of conflicts and negotiations arising from unilateral actions to extend national jurisdiction is that, except in isolated cases, such claims have not been challenged by force. One might ask an interesting question. What are the incentives for nations to try to conclude an agreement on fishing jurisdiction at the Law of the Sea Conference if they can unilaterally extend their jurisdiction without getting into serious trouble with other nations? I have no clear-cut answer to this question except giving some possible reasons, which are not very convincing. I would like to believe that the world community has a common desire to reduce international conflicts. The nations which consider a narrow territorial sea to be of utmost importance might agree to a rather broad fishery zone or other arrangements for protecting coastal fisheries in order to obtain greater support to their positions on the territorial sea issue. The nations which attach great importance to the protection of their coastal fisheries would favor a general agreement on fishery jurisdiction which would strengthen their positions in future international negotiations. In general, too, since fishery problems are related to most of the other issues to be taken up at the Conference and their relative importance differs from nation to nation, it is more than likely that they will be used as tradeoffs in a variety of ways. The nations having no direct access to the open seas, for example, might trade their votes on fishery issues for safeguarding freedom of passage through the territorial seas of other nations. For land-locked nations, fishery matters are of no importance except as trade-offs; for example, they might be traded for possible benefits from the international seabed regime.

In parallel with the trend for extension of national jurisdiction, there will also be a continuing trend for more bilateral or multilateral fishery agreements between the nations directly concerned. The scope and nature of these agreements, including both conventions and executive agreements, is bound to change due to the growing need to deal with problems of a political or economic nature, in addition to problems of conservation. If a new general fishery treaty endorsed by a large number of strong nations results from the Conference, principles set forth in such a treaty may have substantial effects on the future pattern of fishery negotiations.

One of the obvious results of future changes in the international regime for fisheries, largely based on the concept of extension of national jurisdiction, will be a temporary slowdown in fishery development. Severe restrictions on distant-water fishing will result in the under-utilization of many resources. Prices of fishery products will perhaps be pushed up further, not only because of an increasing imbalance between supply and demand, but also because restrictions will be mainly on more efficient fisheries rather than inefficient ones. The world community, however, does not seem to be particularly concerned about these aspects. There is one aspect, however, which would be a matter of more direct concern to many nations, that is, a growing need

for the coastal States of some regions to make arrangements for accommodating each other's fishing activity within their respective regions. Without such arrangements, the development of fisheries even in less developed countries might be seriously hampered, particularly in regions where most of the countries do not have extensive coastlines and where there is a marked disparity between distribution of fish populations and that of human populations, the west coast of Africa being a typical example.

Latin America and the Law of the Sea

F. V. Garcia-Amador, Director, Department of Legal Affairs, General Secretariat of the Organization of American States

Tuesday afternoon, June 22

In the period since the United Nations Conferences on the Law of the Sea in Geneva in 1958 and 1960, various countries of Latin America have laid claim to adjacent maritime spaces and submarine areas, mainly for the exploitation and conservation of their natural resources. These claims or extensions of State competence, together with those made prior to the Conferences, reveal certain common characteristics and even noteworthy coincidences; but they also contain differences that are more than merely formal ones or ones of shading. Both aspects can be better appreciated by grouping the unilateral claims—and the regional or multilateral ones where appropriate—according to the different categories or specific types of extension of State competence.

THE EXCLUSIVE FISHING ZONE AND CONSERVATION ZONES

One category of claims appears to find its inspiration in the formula used at the 1960 Geneva Conference in an effort to resolve the questions that had remained pending from the first conference in 1958, particularly the breadth of the territorial sea and fishing rights in contiguous zones. Five Latin American claims fall under this category, those of Brazil, Colombia, Dominican Republic, Mexico, and Uruguay. Although Brazilian Decree-Law 44 of November 21, 1966 (repealed in 1969), the Mexican Law on the Exclusive Fishing Zone of December 13, 1967 (repealed in 1969), and the Uruguayan Decree (unnumbered) of February 21, 1963 (also repealed in 1969), extended the legal regime applicable to fishing in the territorial sea beyond that sea to a zone whose outer limit did not exceed 12 miles measured from the inner limit of the territorial sea, Dominican Law 186 of September 6, 1967, on the other hand, claimed in that zone only "the powers of jurisdiction and control necessary" to ensure observance of the laws for the "protection and conservation of fisheries and other natural resources of the sea." Colombian Decree 3183 of December 20, 1952, appears similar to the aforementioned Brazilian, Mexican, and Uruguayan legislation in its reference to "fishing" in the zone in question.

Aside from other, not merely formal, differences among these five legal instruments, mention should be made of one which, like the one referred to above, has a bearing on the very nature of this category of claim. While in the Brazilian Decree, the Colombian Decree, the Dominican Law, and the Uruguayan Decree the fishing zone is a zone "contiguous" to the territorial sea as it was conceived of at the second Geneva Conference, in the Mexican Law the zone is a maritime space endowed with its own breadth of 12 miles within which are contained the nine miles of territorial sea established by other legal instruments. Therefore, strictly speaking, the analogy with the Geneva formula lies only in the law's express extension or application of the fishing regime in force in the territorial sea to fishing carried out in the zone established by that law.

Given its purpose or objective, the Dominican claim mentioned is similar in nature to the zones claimed by two other Latin American countries exclusively for the conservation of the living resources of the high sea. One of these zones is the one established by a Venezuelan law of July 27, 1956, "in which [the State] shall exercise its authority and vigilance and watch over the promotion, conservation, and rational exploitation of the living resources of the sea found therein, whether such resources are harvested by Venezuelans or by foreigners." The other zone is claimed by Costa Rica and is one of the Central American 200-mile claims. Costa Rican Decree Laws of 1948 and 1949, the latter establishing "State protection" over a 200-mile zone, have officially been interpreted in this manner.

THE 200-MILE CLAIMS

The 200-mile claims comprise the most complex category owing to the many varying forms they have taken since the "Declaration on the Maritime Zone" or "Declaration of Santiago" of 1952. To begin with, the claims to a territorial sea *stricto sensu*, that is, a maritime space subject to a legal regime like the one established by the Geneva Convention on the Territorial Sea and Contiguous Zone, should be identified. Only in this way is it possible to appreciate their similarities and differences from other claims to which they might be considered comparable, analogous, or even identical.

There are three such claims: Ecuadorian Decree 1542 of November 10, 1966, Panamanian Law 31 of February 2, 1967, and Brazilian Decree-Law 1098 of March 25, 1970. Not only do these legal instruments use the term "territorial sea," but none of them recog-

nizes, explicitly or implicitly, any rights other than innocent passage. In the case of the Ecuadorian Decree, however, since it provides for the establishment of "different zones of the territorial sea by executive decree . . . [which] shall be subject to the regime of free maritime navigation or of innocent passage for foreign ships," in that event the claim would not have the same nature or scope.

Without exception the unilateral claims of the remaining countries recognize free navigation; those of Argentina, Chile, Costa Rica, El Salvador, Peru, and Uruguay do so expressly, and Nicaragua's claim does so implicitly. They also recognize tacitly or expressly (the latter in the case of Argentina and Uruguay) free air navigation or overflight; that is, two of the four major freedoms of the high seas recognized by the 1958 Geneva Convention. Therefore, from a strictly legal viewpoint these claims should not be identified with those which establish a territorial sea as such.

Innocent passage, which is explicitly or tacitly recognized in the claims of Brazil, Ecuador, and Panama, is an element of the legal regime of the territorial sea and is so conceived of in the Geneva Convention on the Territorial Sea and Contiguous Zone. Free navigation and air navigation, on the other hand, are elements of the legal regime of a different maritime space, the high seas, and as such both these freedoms are recognized in the Geneva Convention on the High Seas mentioned previously. Therefore, in the light of traditional legal regimes of the territorial sea and of the high seas, as set forth in these conventions, only these three Latin American claims can be identified as claims to territorial seas.

The claims of Argentina, Chile, Costa Rica, El Salvador, Nicaragua, Peru, and Uruguay, on the other hand, should rather be identified with modern projections of specialized competence; that is, with the maritime zones established primarily either for the exploitation or the conservation, or both, of the natural resources contained therein. In the case of Uruguay this applies to the space between 12 and 200 miles in view of the two maritime zones established by Article 3 of Law 13.833 of December 29, 1969. For this reason, although the seven claims constitute express or tacit declarations of sovereignty, at the same time the State limits itself with regard to freedom of navigation and air navigation which would be inconceivable within the legal regime of a territorial sea in the strict, traditional sense of the term.

THE DECLARATION OF SANTIAGO

In the light of the foregoing, the 200-mile maritime zone proclaimed by the governments of Chile, Ecuador, and Peru in the Declaration of Santiago should not be identified with the three which, *stricto sensu*, constitute a territorial sea. On the other hand, there are numerous reasons for identifying the tripartite claim of 1952 with the claims which constitute extensions of specialized competence.

In this respect, what must be borne in mind are the purposes and objectives behind this claim as explicitly set forth in the first paragraphs of the Declaration. Obviously, although this is a declaration of sovereignty, it involves nothing more than "the conservation and protection of [the] natural resources [of the zone claimed] and to regulate the use thereof." In other words, far from extending all the competences of the State comprehended in the juridical regime of the territorial sea, this is an extension of only the competence or competences necessary to ensure the achievement of the purposes and objectives indicated. Reference might be made here to the repeated interpretations of this Declaration by authorized representatives of the three countries, especially in United Nations organs and conferences, in which the Declaration has been assigned that nature and scope.

Thus, when the Declaration speaks of "the necessary restrictions on the exercise of sovereignty and jurisdiction imposed by international law to permit the innocent and inoffensive passage of vessels of all nations through the zone aforesaid," it really refers to free navigation. The right of innocent passage, being an element of the legal regime of the territorial sea, need not be expressly mentioned. This leads us to think, particularly in the light of the specific, exclusive purposes and objectives of the claim, that what the Declaration in effect contemplates and recognizes is free navigation; this is especially true in that part of the maritime zone which is not claimed as the territorial sea of any of the three countries.

OTHER ASPECTS OF THE 200-MILE CLAIM

The 200-mile claims also differ in other respects. Although in a majority of them a single, unique maritime space of that breadth is established, in some, occasionally pursuant to supplementary instruments, the space claimed is divided into two zones so as to reserve fishing in one zone to the nationals or vessels of the coastal State. For example, two countries, Argentina and Uruguay, claim a zone 12 miles wide; Brazil extends the zone up to 100 miles.

Other differences which merit mention are the effect the claim has on the submarine areas underlying the maritime space claimed. The Declaration of Santiago expressly states that "sole jurisdiction and sovereignty over the zone thus described includes sole sovereignty and jurisdiction over the sea floor and subsoil thereof." Considering that under the legal regime of the territorial sea the sovereignty of the State extends to the seabed and subsoil of this maritime space, the submarine area or areas affected by the Declaration are the seabed and subsoil of the maritime zone beyond the outer limit of the territorial sea of each of the three countries. The constitutional provision of El Salvador lays claim to submarine areas in the same manner. In the 1947 unilateral claims of Chile and Peru which preceded the Declaration a different method had been followed: a separate and direct claim to the

submarine areas. Among the more recent 200-mile claims the same method is followed by Argentina and Uruguay. In the claims of Brazil, Ecuador, and Panama to a 200-mile territorial sea, however, for the reason just given, the effect of the claim is to extend the sovereignty of the coastal State to the underlying submarine area or areas.

Finally, it should be noted that in the Declaration of Montevideo on the Law of the Sea of May 1970—although not in the Declaration of Lima of August of that same year—what is claimed is "The right to explore, conserve, and exploit the natural resources of the soil and subsoil of the seabed and ocean floor up to the limit within which the State exercises its jurisdiction over the sea." Up to a certain point, at least, it would appear that the tripartite declaration of the South Pacific, the Salvadorean constitutional provision, and the Declaration of Montevideo signed by nine of the Latin American countries that have made 200 mile claims apply criteria or elements of the legal regime of the territorial sea to the seabed and subsoil of the areas underlying the maritime zone claimed.

CLAIMS TO SUBMARINE AREAS

Aside from what has already been indicated with regard to the 200-mile claims, the claims to the platform and other submarine areas, or to the natural resources found therein, should also be compared in other respects. Although it may only be of interest from a formal or technical legal viewpoint, we must not overlook the fact that, unlike the other claims, those claiming submarine areas or their natural resources frequently appear in the political constitution of the country. To date 10 of the States whose legislation appears in section II have made these claims at the constitutional level: Brazil, Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, and Venezuela. Furthermore, the Constitution of Honduras not only mentions by name the submarine area or areas claimed but also defines or delimits the said area or areas.

The definition or delimitation of the submarine area or areas is more frequent in other legal instruments. Prior to the first Geneva Conference the 1947 unilateral claims of Chile and Peru adopted the criterion of claiming the submarine area "adjacent to the continental and insular coasts," regardless of the depth of the superjacent waters; the claims of Nicaragua (1949) and Brazil (1950) adopted the criterion of the bathymetric curve or isobath of 200 meters; and the Venezuelan claim (1956) adopted the dual criterion of the 200-meter isobath and exploitability which had been unanimously approved by the Inter-American Specialized Conference on "Conservation of Natural Resources: Continental Shelf and Marine Waters," held in the capitol of the Dominican Republic in March 1956. Eventually that criterion became the definition contained in Article 1 of the Convention on the Continental Shelf adopted by the 1958 Geneva Conference, with certain primarily formal differences, and also appears in the Constitution of Honduras and more recent Argentine (1966) and Uruguayan (1969) legislation.

JURIDICAL STATUS OF THE SUPERJACENT WATERS

Not all the Latin American unilateral claims to the continental shelf or other submarine areas have the same effect on the superjacent waters. The majority have no effect whatsoever; those waters beyond the outer limit of the respective territorial sea maintain their status as waters of the high seas. Certain claims, however, do affect those waters although not with respect to free navigation. The claim to the "epicontinental sea" made by Argentine decrees of 1944 and 1966 is, or was, a case in point depending on whether or not the said decrees are considered to be still in force. One of the constitutional amendments proposed by the Mexican President in 1945 also affected the superjacent waters. The Panamanian decree of 1946 affected those waters "for the purposes of fisheries in general." The former Honduran legislative decree of January 17, 1951, extended Honduran sovereignty to those waters. Also to be recalled is the 1961 Special Law on Fishing of Nicaragua applicable to "the waters . . . which cover the continental shelf and submarine areas that are part of the national territory," as well as the Uruguayan Decree of May 16, 1969 (repealed that same year), which regulated the exploitation of the living resources of the "Uruguayan epicontinental sea." At a regional level, the Declaration of Antigua Guatemala in 1955 declared the "epicontinental sea" to be part of the "territorial heritage" of the Central American States.

Discussion

Tuesday afternoon, June 22

Idyll: In establishing an international regime of management for the open sea, it will be necessary to be constantly reminded of the distinct differences that exist among the kinds of resources we are talking about. All of us know about these differences, but I believe it is worth while at intervals to remind ourselves that the mineral resources, both oil and hard minerals, require a different kind of management than the fishery resources. This is partly because the latter are renewable and therefore their management must aim for moderation in exploitation in order to have a perpetual return. Furthermore, living animals pose a more difficult problem of understanding and treatment. It is my feeling that much of the problem that has faced many of us in contemplating the difficulties of establishing an ocean regime which will supervise the exploitation and management of marine resources is because no single pattern of organization seems appropriate. There must be not one regime but at least

two, and perhaps more, designed to take into account the differences I allude to.

I have a question for Dr. Kasahara in relation to this. In view of the necessity for a regime of the open sea which simultaneously avoids under-exploitation and over-exploitation, and at the same time ensures the protection of the environment from pollution and other kinds of damage, what principles of control or regulation does Dr. Kasahara conceive?

Kasahara: I would have to write another paper, but I can list a few things that might be considered as generally acceptable principles on the basis of my understanding of current fishery problems. To me acceptability is a major criterion, since I do not want to waste time to figure out something which would not be acceptable to the majority of nations concerned. I am just listing things off the cuff, so they may be quite incomplete.

Number one: conservation should remain as an essential element of any international regulatory system. Number two: I think most of the systems of regulating international fisheries should accommodate some form of allocation; that is, in any arrangement you are going to develop, you have to face squarely the question of allocation and provide means to implement this either in terms of allocation of resources, or allocation of fishing grounds, or allocation of efforts, or distribution of benefits.

Number three: in most cases we also have to accept, as a principle, the need for protecting small coastal fisheries against adverse effects of distant water fishing. Number four: I think any system should be open to new participants, with some accommodation made for their share of the catch, if the catch is to be limited.

Number five: if a system is participated in by both developed and developing nations, which will be the case in many areas, then I think some form of assistance to the developing nations should be made an element of the system. Without that, it might be difficult for developing nations to participate in the system on an equal footing basis.

Number six: I think there should be, under any system of international regulation, some form of international enforcement, at least to the extent of providing an arrangement for mutual inspection.

Number seven: it may be difficult to realize, but wherever feasible, we should build into a regulatory system some incentives for making fishing more efficient rather than more inefficient.

These are among the important principles I can think of.

Wall: Mr. Wall, of the United Kingdom. Professor Kasahara was saying that of the various alternatives for solving the fisheries question, as I understood him, the *easiest* would be the extension of coastal jurisdiction for exclusive fisheries purposes—even up to 200 miles.

I would like to make a comment following this. May I challenge that opinion, and I think it important to do so? Dr. Kasahara may well be right in terms of, say, South America fronting a wide and almost limitless ocean space, but in other parts—many parts—of the world there is a quite different situation, and wider coastal zone jurisdiction would make many more difficulties than it would solve. This would certainly be true in Europe with its narrower seas. May I briefly take the case of the North Sea, which is still one of the world's greatest and most productive fishery resources.

First of all, if we are talking in terms of 200 miles and Western European States were to think of zones of 200 miles, Britain would end up half way to Paris; Germany would end up in Copenhagen, and Sweden's limit would stretch into the Soviet Union. All right, you say, then you apply the median line system and each of you goes out midway to meet the neighboring country's limits coming towards you. In terms of seas like our North Sea, and the ancillary seas around the North Sea, and the Baltic and the Mediterranean Seas, the effect of the median-line system as an expression of exclusive fishery zones would be that the North Sea and other such seas would be closed to outside countries because we shall all meet each other's limits. You may say, "What's wrong with that? Each of you would have an area in which you would have exclusive jurisdiction and the fisheries to yourself." Well, perhaps in Europe we are rather awkward and wilful people. It so happens we don't by any means always fish nearest to our own coasts, and the distribution of fishing is indeed such that most of the European States have valuable fisheries which are nearer the coasts of other European countries than their own.

Once you divided up the North Sea and such like seas by median lines, we should all be bound to be in each other's gardens just as much as our own; and then we should be confronted with a vast problem of making bilateral arrangements for, so to speak, exchanging each other's fisheries when none of this is required or necessary in Europe.

There would also be a further problem. As I said, the North Sea would become wholly coastal waters. Except for those States fronting the North Sea, there would be no fishing for anyone else there. Now in the northern parts of the North Sea the Soviet Union fishes. But her coast does not point into the North Sea, it points towards the Arctic and she would be out. Or would she be out, and how would we deal with that problem?

Now, what I want to remark is that all of this shows that this exclusive-fishery-beyond-twelve-miles proposition makes no kind of sense whatever for the European situation. We can only deal with it, as we are dealing with it, on a collective basis through international fisheries commissions by which we try and regulate and manage the fisheries sensibly. May I briefly and quickly close by saying that I think anything that comes out of Geneva, if something is coming out of Geneva in 1973 on fisheries, if it is to receive sufficient support,

must embody at least three principles and possibly a fourth.

First of all, it must be addressed to the stocks of fish rather than to geography and arithmetic. Secondly, it must quite properly provide something by way of coastal State preference, and that has been accepted in principle in Europe. Thirdly, it must pay regard to established fishing patterns, some of which go back one, two and even three centuries. There may be a further principle, and this is my last point.

We have fisheries commissions for the European fisheries. We have, taking one of Dr. Kasahara's points, for example mutual enforcement; we are considering whether catches need to be rationed or allocated; we are considering how that would best be done. There is a problem here. It can take too long to reach an agreement, and the fish stocks may suffer because there is a long period of argument between States.

If some system of arbitration could be introduced into the kind of system we have so that the solution to the allocation of a rationed catch has to be found within a reasonable space of time, then we might begin to solve the last and hardest problem of all.

Kasahara: As I said in the beginning, I was stating what is likely to happen and not what I believe is a good solution. I fully agree with you. I think, after one round of nationalization of fishing waters, there would be a trend towards internationalizing them again. In my own mind this is what is going to happen eventually, but for the time being the prevailing trend is for extension of coastal control.

Herrington: Dr. Kasahara made his usual realistic assessment of possibilities, and I think one of these deserves particular attention: the possibility of negotiating zones of different widths in different regions, based on differences in the distribution of coastal stocks. Most countries admit a coastal State has a preferential interest of some kind in the stocks of fish off its coast. If the Conference can agree on what this preferential interest is in these stocks of fish, without defining a uniform geographical zone, it could then be left to each region to negotiate how this special interest should be administered in that region. There could be a proviso that if they cannot reach an agreement the differences would go to some form of arbitration.

Mr. Wall has suggested that the situation on the North Sea differs from the west coast of South America, and that a realistic approach to the problem must take into consideration the differences in different regions. You will recall that yesterday Ambassador Solomon suggested that in the Caribbean they might need a different regime than off other coasts. It seems to me this is a practical approach.

My first question is to Dr. Kasahara. You remarked that if the United States and Canada should extend their fishery zones, then quite likely Japan would withdraw from the North Pacific Fishery Convention. I am raising a further question: If the Conference should agree on broad fishery zones, and also that anadromous fish should not be fished except by the State producing them, would you care to speculate what Japan might do in that situation?

Kasahara: I think you already have a partial answer to that question in a real situation in the North Pacific; Japan is not a member of the continental shelf convention, while the United States is, and has declared the crab resource as subject to the convention. Japan has denied it; and as far as she is concerned the U. S. claim is unilateral. But Japanese crab fishing is being curtailed as a result of negotiations on different legal grounds. Therefore, the same thing will happen if the United States further extends coastal jurisdiction; Japan will negotiate to protect her fishing interests as much as possible. At the same time, if you can make it a general principle for coastal States to have a special right to anadromous species, agreed upon by a two-thirds majority at the convention, Japan perhaps will not sign the treaty and will stay outside the treaty. She will regard any claim based on the treaty as unilateral, and enter into negotiations with the country making such a claim.

Herrington: I think that is a good answer. My next question is to Dr. Garcia-Amador. First, Canada allows innocent passage and permits fishing boats to pass through her territorial waters. You mentioned Ecuador also allows innocent passage, but the last I knew Ecuador also provided that no fishing boat was innocent. My question is, does that exception still remain?

Second, as I recall the original declaration, it did not provide 200 miles specifically, but 200 miles or as much beyond this as necessary. Is this still the position of the countries—200 miles or as far as necessary?

Garcia-Amador: So far as the second question is concerned, I do not know of any change, of any interpretation or application of the regional Santiago Declaration in this respect. There are some other Latin Americans here, some of them nationals of two of the countries party to this Declaration, who might answer that question.

So far as the first question is concerned, as you know, innocent passage is "innocent" in the sense, for instance, that you cannot fish; when you fish the passage ceases to be innocent. Innocent passage means that you can go ahead and navigate, complying with the coastal State's territorial sea regulations. According to the Geneva Convention, fishing is not a freedom that coastal States have to recognize in the territorial sea.

Herrington: The law provides for innocent passage, but then denies it for certain types of boats. A law which recognizes innocent passage but then categorically denies it to a certain category of boat would be a bit confusing.

Garcia-Amador: I was referring only to fishing, not to general innocent navigation.

Remarks: Sambrailo

Branko Sambrailo, Scientific Adviser, Jadranski Institute, Yugoslav Academy of Sciences and Arts

Tuesday afternoon, June 22

As a representative of the Adriatic Institute of the Yugoslav Academy of Sciences and Arts which is engaged in very much the same programs of research as this Institute, I would like to express my admiration at the efforts so successfully carried out by the Law of the Sea Institute at the University of Rhode Island in developing international law of the sea from the scientific and practical point of view under the leadership of the distinguished Professor Alexander.

I would like to make some very brief remarks on the topic of fisheries interests and their negotiation, because my country has great interest in the negotiation of international treaties relating to fisheries. Many regulations affect our local fishing by fishermen in the territorial sea and contiguous zone. From time to time in the past, a very difficult situation arose where fishing vessels were escorted by Italian warships in carrying out their fishing activities. This situation changed in the last decade, because both sides entered into negotiations and made agreements on a basis of this concept. Namely, Yugoslavia agreed to give a concession to Italian fishermen for carrying out fishing activities in four special zones situated partly in the Yugoslav territorial sea and partly in the contiguous zone. Italy on their part undertook an obligation by agreement to pay for the concession a fee of 500 million Italian lira annually in the nature of an indemnification for benefits.

Because the agreement does not concern sea areas far from the coast, I do not exhibit it as a model for resolving existing disputes between many countries, such as the growing number of coastal States which claim a great distance into the high seas as their territorial sea or areas of exclusive fisheries rights. I hope I can be understood as having justified an economic reason of some countries to find a compensation on the high seas for bounty which nature, not they, has endowed them, and which is not found on the land. Their citizens depend exclusively, or in great part, upon production of the living resources of the sea itself; but if they proceed to claim extremely widened extension of their exclusive right to the distance of 200 miles and even more, they will bring us back to the earlier stage of claims of the coastal States during the struggle between concepts of *Mare Clausum* and *Mare Liberum* in Grotius' time.

To resolve this attack on the freedom of the high seas and especially freedom of fishing, the only solution, in my view, is in the concept that the living resources, like all non-living resources, are "the common heritage of all mankind," which I advocated more than 15 years ago as "common property of mankind" in my doctoral thesis.

Perhaps on these grounds can be found a compromise in respect to claims of the Latin American countries and other States to exclusive and preferential fisheries rights on high seas areas. There can be taken into account special benefits, which can be obtained for the economically more endangered coastal countries by sharing in a special International Fund for resources of the high seas, which could be established for this purpose.

The concept of common heritage of all mankind is considered, in a small number of States, to be a political and social postulate only, and not a purely legal concept. This point of view may have been correct during all the time in which the common heritage concept was not accepted by a great majority of States, as it now is through resolution of the General Assembly of the United Nations in the form of the Declaration of Principles concerning submarine areas and their natural resources. But as a consequence of that Declaration, it developed into one of the main principles of the international law of the sea—not in the same way, however, as the principle of freedom of the seas, which was established in international customary law by long-term general practice of States.

Furthermore, when this main principle of "common heritage" is expanded and completed by a set of rules formulated through an international regime and machinery, it will become more than a principle; it will grow into a new system of the international law of the sea.

States' Interests in Offshore Oil

M. A. Adelman, Professor of Economics, Massachusetts Institute of Technology

Tuesday afternoon, June 22

I hope the title of my paper is not too much of a misnomer. I will not be concerned really with the rights which States have, but with what it is that they have rights over—in this case, oil.

I would be willing to bet that every one of the many languages that are represented here has a proverb which is a variant on "Don't count your chickens before they are hatched," "Don't sell the bearskin before you shoot the bear," and so on. What I am about to do is not quite as bad, but almost: I am making the assumption of a massive improvement in technology.

Today the frontier of drilling and developing oil is, very roughly speaking, only about 100 meters of water depth. A recent development in offshore Peru, for example, in 70 meters, is spoken of as being in really deep waters. Yet, I think the shape of things to come is dimly visible in newly ordered submersible rigs around the middle of this year. Of 13 on order, seven will go to at least 240 meters, and three of them to an unlimited depth. A recent well start is of 1700 feet, or 520 meters.

Today I will assume that the frontier of technology by 1980 is going to be around 1,000 meters, and will explore the consequences. If I make a mistake it will be of the same kind that has been made about shale oil. It was known as long ago as 1920 that there were many trillion barrels of oil content in the Rocky Mountain states, and the value of that oil in 1920 was every bit as high as it was in 1970—to wit, nothing at all. The cost of getting that oil above ground and in manageable, useable form was greater than the cost of getting it from some other source; and for all we know, this may have to be said about the deposits in the seabed past the 200 meter line of depth. To assume that the same sad story won't be true, and to translate the expectation into economic terms, today a big prolific deposit will be at least barely profitable at a depth of 100 meters; by 1980 a similar deposit will be barely profitable at 1,000 meters.

In between these depths, between a hundred and a thousand large new deposits will be unlocked at costs that are comparable to present costs onshore and in the shallow offshore. From being prohibitively expensive, they will become largely profitable, and so a large addition will have been made to oil and gas resources.

The openings in deeper waters, may I point out, are only a special case of increased knowledge. There is also better understanding of geological formations, where progress has been quite exciting in the last few years. There is more know-how in operating in harsh and unusual environments, and here the Arctic region is the star. As knowledge extends in this way, so does the oil resource. Let us therefore look forward to some kind of riches by 1980; and whether these riches are used well or ill—and I take it some opinions differ among the participants here — we need some fairly long-term perspective on what these riches amount to. I am not going to make any such evaluation; what I wish to do is only to lay out the elements of how such an evaluation is made, and what kinds of problems are raised by it.

I said you need a long-term perspective, and I think it helps to look at what has happened to the price of a barrel of oil at the principal producing point, the Persian Gulf. In 1947 it was about $2.20. Today, after the recent Tehran agreement, it is about $1.75. Without trying to lend more precision to these figures than they deserve, which isn't a great deal, but bearing in mind that this has been a quarter of a century of inflation to the extent of about 70 percent in the general price level, it is clear that the real price of oil at the Persian Gulf is down by something more than 55 percent over the last quarter century.

The growth in output over this period has been fairly steady, in the neighborhood of 11 percent per year. In 1970 it was a little bit faster, perhaps greater than 12 percent. Great excitement was thereby generated, and new forces said to have worked a revolution in the balance of demand and supply and so on. If those who were thereby excited were to be consistent, they should be correspondingly depressed now because in the first four months of this year the rate of growth in the world market, outside of the United States, was about ten percent. In fact, these are simply small fluctuations about a fairly steady mean, and the market continues in about the same state that it has been.

In pointing out that the price has declined substantially over 25 years, I would do you quite a disservice if I suggested that the progression has been smooth. It has been anything but that. There was a considerable increase to 1947, then quite a strong decrease to 1950, a long period of increase between 1950 and 1957, and a fairly abrupt drop to 1960; a long recessional to 1970 and recently, owing to the Tehran and similar agreements, a rise. In real terms the price is now about where it was in 1963, and the question of which way to 1980 is a matter in some dispute.

Let us leave the price hanging over the edge of a cliff, as it were—there may be some discussion on that afterward—and look to another indicator, the investment needed to develop a barrel of daily capacity, which is the best gauge of long-run plenty or scarcity.

The failure of a discovery effort to supply new deposits as the old ones are used up means that you have to squeeze harder and harder on the old sponge to force out more liquid, because you are not finding any new sponges. Therefore, the cost of squeezing on the

sponge is a good indicator both of your development costs and of your finding effort.

In the United States, which is a special area protected from the rest of the world, it is probable that the investment requirements have increased since 1960. There is no great body of tested evidence supporting my impression; it is based on fragmentary data. Outside of North America, most particularly at the Persian Gulf and Venezuela, the evidence is quite unequivocal. Investment requirements or costs are down by a third to a half in the last decade, despite the considerable inflation. The price has fluctuated up and down—mostly down—over the long period, while the cost has drifted steadily down.

Price has little connection with cost. At the Persian Gulf today the development cost, assuming a 20 percent return on the investment, is in the neighborhood of ten cents a barrel. Making what I think would be an excessive allowance for finding costs adds another ten cents. The price, then, is between six and thirteen times the cost, and that I think is quite a unique market. Nearly all of this price is *net* revenue to the various host governments.

The new offshore production beyond the 100 meter line is going to be inserted somehow into this kind of market, and anyone who is trying to work out a law of the sea must somehow come to terms with the multinational grouping, the producing nations who control this material.

The power of these nations is great, but also limited, because they cannot set a limit to output and divide it among the members. They are forced, therefore, back on to a much more crude method of control. Last January and February they threatened to cut off oil supply, in order to obtain higher taxes by forcing the consuming-country governments to accept higher prices. The international oil companies, however large, are really junior partners in this enterprise today.

The supply, then, is insecure, and furthermore it has to be kept insecure by threats to cut off production, because that is the only method available to the owning governments today. Since they have no scalpel, they must use the meat axe. Consuming governments have not reacted to this threat. They may the next time, or the time after that. The amounts of money involved here are not small. In this year, about $12 billion will be transferred from consuming to producing nations. If the current rate of increase continues and nothing else changes by 1980 (our target year), it will be about $30 billion a year; and this, as I said, is a pure transfer, unrelated to any investment of capital. If none of it were made, supply would not be affected.

The producing governments will, I think, try to increase taxes once more. The agreements signed last February in Iran are for five years; but past agreements have never been kept. Even with nominal adherence, taxes can be raised. Penalties can be levied for having violated something, and since the oil concessionnaire might violate something in the future, he can be made to post a bond and have the money available.

There is a very strong incentive for the governments to raise taxes again because within very wide limits oil is a much cheaper fuel than the alternatives. European or Japanese coal is absurdly expensive; nuclear power is not absurdly expensive but still it is of high cost. So much for the power of producing nations. But the power is also unstable because consuming nations may react by invoking market forces. A few minutes ago I said that there have been times of rising prices and of falling prices, but on the whole more falling than rising. That was simply competitive erosion, prices toward costs.

As the producing-country governments get more deeply into the act of themselves producing and selling —and this is very much on the agenda today—they will, I think, be much less successful at maintaining prices than the oil companies have been in the past; and they will therefore be much more severe price cutters when they themselves come to do the selling. By 1980 quite a good deal of the world market is going to be directly managed by producing-country governments. The Iran concession ends in 1979. There is an option to renew which exists on paper, but which is not to be taken seriously. A transfer, a take-over will need to begin in the mid-1970's. In Venezuela, the take-over was scheduled for 1984, but is actually going to come a good deal sooner. Where some governments lead, others must follow very closely.

There is a better than negligible chance of a worldwide commodity agreement to stabilize the price and divide up markets. My own opinion of this does not matter; but I think that support for it will be considerable. Commodity agreements might almost be said to be the purpose for which the United Nations Conference on Trade and Development (UNCTAD) was formed. Many of the developed and developing nations are in favor of them, including the United States, and the approach was written large in the report of the Secretary General on Resources of the Sea in 1968.

This, then, is the market, and this is the set of relations between companies and governments with which somehow these proceedings must come to terms. You are talking about a law of the sea, but there is not much effective law on the land where the oil market operates. An interesting time will be had by all. There is an old Chinese curse which says, "May your life be spent in interesting times."

The Value of Subsea Mineral Resources

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Tuesday afternoon, June 22

The objective of this paper is to put into perspective the present value of metallic and nonmetallic mineral resources lying under the surface of the oceans. The first thesis of this paper is that the present value of most subsea mineral stocks is very small—close to zero. Second, the value of these stocks may be rising rapidly. Third, the cost of owning or controlling the seabed resources is smaller than the value of the deposits; therefore there is economic advantage to acquiring them.

I will first define value, reserves and resources from the points of view of economists and mining engineers. Then following is a discussion of the economic theory underlying calculation of the value of mineral stocks and income flows from mines. The final section presents arguments supporting the theses and provides some policy implications.

VALUE, RESERVES AND RESOURCES

Value is price.

Present value is price today of future income. The word can have many meanings but to most economists, value is price: the amount of money that is paid or would be exchanged for some goods or service. The value of a pound of copper purchased at the producer price in the United States is 52¾ cents. Value to most economists does not include *use* value. The satisfaction of driving a car with a copper radiator is not considered or measured by economists. One other point: for something to have value, the good or service must have some purpose and there must be some difficulty in its acquisition. Scarcity alone does not produce value. The manganese nodules which may be available in great tonnage have value.[1] It is difficulty of attainment which gives them value.

Mines have two separate values. The first is the value of the stock of minerals in a deposit. The second is the economic treatment of the flow of income from mining, processing and selling the marketable constituents of the deposit. These two concepts, a stock and a flow, must be separated in our thinking because they are different notions producing different economic action on the part of the controllers of the stocks and flows.

A stock is like a balance sheet. It is a statement of quantity conditions at a specific point in time. The mineral reserve in a particular deposit, or in a specific country or in the entire world is a stock.[2] For instance, the copper metal reserve of the United States in January, 1971, was estimated by the Bureau of Mines at 85 million tons.[3] The term "reserve" includes a short run time horizon, a technological and an economic constraint. That is, "ore" is mineral which can be mined profitably under existing technological and economic conditions. Reserves are further differentiated by certainty of existence into categories of "proved" and "possible." "Proved" reserves have the highest degree of certainty. A qualitative and quantitative assessment of the state of knowledge of particular deposits is the measurement of certainty. Mineral bearing material which cannot be worked profitably under existing technological and economic conditions are called "resources." Some people call this type of material "potential ore" but the concept is the same. When mineral bearing material is discovered, that material immediately becomes a resource. As geological, technical, economic and legal information is developed concerning a particular resource in a specific location, the terminology may shift to the "reserve" category.[4] In the statement of copper metal reserve mentioned above, there is included implicitly a statement of profit under existing technology. But if the term "reserves" implies a finite stock, the term "resources" is less easy to bound. Resources is a concept inhibited only by the imagination and time horizon of people. Gold contained in seawater is a resource. The minerals in the soil under and around our homes or on the recreational beaches are in this sense a resource because of the technological and economic constraint. The significant difference between common garden soil and what is considered a mineral resource is the degree of relative concentration of a particular mineral as compared to the normal background on the planet.

Notice, in this discussion of resources or reserves there is an intimation of value. This is because the two categories are a function of the cost of production. Mineral reserves have a market price which can be quite substantial. Resources also have a price but it may well be quite small. For instance, I can guess that the price which would be paid annually for mining rights over the Red Sea metalliferous muds is close to zero even if secure tenure were assured.

Wealth is a measurement, in money terms, of the aggregate value of a stock. The word wealth also does

[1]John L. Mero, *The Mineral Resources of the Sea*, (New York; Elsevier Publishing Company, 1956) pp. 155-178, discusses manganese nodule tonnage and concentrations.

[2]Mineral stocks are not inventories. Mineral deposits are replenished only in geologic time horizons of many thousands of years. However there are exceptions, such as beach sand deposits which can be eroded or developed in very short time periods.

[3]Commodity Data Summaries, U. S. Department of the Interior, Bureau of Mines, January 1971, p. 43.

[4]For more discussion of these concepts, see F. Blondel and S. G. Lasky, "Mineral Reserves and Mineral Resources", *Economic Geology*, Vol. LI, No. 7 (November, 1956) pp. 686-97, and H. H. Landsberg, et al., *Resources in America's Future*, (Baltimore: Johns Hopkins Press for Resources For The Future, Inc., 1963), pp. 424-425.

not signify gross or net measurement, although it is often used in the gross sense.

A flow resembles an income statement. It is a quantity that can only be measured over a period of time. Most of the flow measurements in mining are goods (metal) or money output per day, month or year. For instance, in 1969, 725,000 short tons of copper with an estimated sales value of one billion dollars was exported from Zambia. In 1966, the value of all non-petroleum minerals from marine sources on the U.S. shelf and slope was about $200 million. The materials produced included sulfur, sand, gravel, marine shells to aid in recovery of magnesium, and chemical material produced from seawater.[5] Income flows are further measured in present value terms; that is, future income flows are discounted. Income from mining sea-based minerals in the year 2050 has little value to society today. Why? In income valuation we are concerned with the net price or value today of net income (revenue minus cost) which we shall receive next year, the following year and each subsequent year. Each one of these yearly net inflows must be discounted at the social rate of discount to obtain the amount of money we would pay today to purchase these future flows.[6]

THE STOCK VALUE OF MINERAL RESERVES

The seabed for centuries has been a Golconda of the world's dreamers. These ideas exist today in two forms of interest here. The first is where specific nations or groups of nations attempt to hold or obstruct others from claiming areas of the seabed. The reason for so doing is to retain for themselves the wealth of the seas. This shows up as resistance to formation of an international regime of the seas. I am excluding national defense arguments. The second form of these ideas is manifested in groups wanting to utilize the wealth of the seabed for themselves or for the good of mankind. In both instances, the assumption of great wealth or high net present value of seabed resources exists.

In an economic context, suppose all the mineral deposits of a specific metal that will ever be mined are known, measured and of decreasing quality. The decrease in quality can be considered an increase in cost with the assumption of constant technology. Assume further that the mineral industry operates with sufficient competition to be responsive to profit and loss signals. Then each deposit in the ground awaiting its turn to be mined would have a finite value which will increase at the rate of discount over thousands of years. The price of metal produced is the sum of long run cost plus this inherent finite value which can be called the stock value. Over time, as the deposits are produced at such a rate that they exactly satisfy demand, price rises, less is purchased, until at some level the price is so high that complete substitution of some other good occurs. Mineral resources are considered finite in the sense that the stock size cut-off point is at the price of total substitution. If the time period of metal usage is known, then the last ton of inplace metal will be mined and sold at the highest price anyone would be willing to pay. In this equilibrium model, the difference between selling price and average cost, the stock value, is not economic rent in any sense whatsoever.[7] The stock value is the price of the metal in the ground, and increases as depletion proceeds reaching a maximum at the price of total substitution. In general, production of metal would proceed in sequential order from best to worst deposits. The reason for this is because the stock value of the better deposits is not growing as rapidly as that of the poorer deposits.[8]

Another way of examining the problem of stock value is to assume the world contained three deposits of manganese, each of sequentially lower quality. (In this world, tenure is not a problem.) As demand for the metal arose, production would commence from deposit A, the highest quality land deposit. As demand for the metal continued to grow and deposit A could not satisfy demand except at some marginal cost higher than minimum average cost of deposit B, also on the land, then deposit B would commence production. Later under the same circumstances, deposit C—the manganese nodules on the seabed—could begin production. The question we have is what is the value of manganese nodules at the time deposit B began production, or when deposit A began to produce the metal? The answer is stock value.

An estimate of the size of the stock value can be shown by assuming that the estimated contents of manganese in all deposits is 100,000 units. Assume further an almost vertical demand curve to which approximately 20 units per year are demanded at all prices up to 60 cents per unit. Nothing is demanded above 60 cents. The cost of exploration, development, mining, milling, refining, and marketing including normal profit is 40 cents per unit. In this case consumption at the rate of 20 units per year would continue for 5000 years. Even at the end of 4000 years, the stock value of the unexploited manganese deposits would be infinitesimal and price would approximate cost or 40 cents. Price is the sum of the stock value plus cost, therefore in the year 4000:

[5]Economic Associates, Inc., *The Economic Potential of the Mineral and Botanical Resources of the U. S. Continental Shelf and Slope*, (Springfield, Va.: Clearing House for Federal Scientific and Technical Information, 1968), p. 17.

[6]For a comment on the rate of discount, see W. J. Baumol, "On the Social Rate of Discount," *American Economic Review*, September 1968. It is an open problem whether the appropriate discount rate is that of the firm, industry or society.

[7]Some economists believe that stock value is a form of rent. I do not agree with that view since stock value exists even for the deposit at the margin.

[8]This theory is thoroughly discussed by Orris C. Herfindahl, "Depletion and Economic Theory," *Extractive Resources and Taxation*, ed., Mason Gaffney, (Madison: University of Wisconsin Press, 1967), pp. 63-89.

$$p4000 = \frac{60 - 40}{(1 + r)5000\text{-}4000} + 40$$

$$= \text{maximum price} - \text{cost of mining discounted to year 4000} + \text{cost of mining}$$

$$= \text{stock value in year 5000 discounted to year 4000} + \text{cost of mining}$$

If r, the rate of discount, is any reasonable figure—say, a minimum of 15 to 20 percent after taxes, we can see that the stock value is almost zero and that price in year 4000 is 40 cents, the cost.

STOCK VALUE OF SEABED RESOURCES

Mineral resources of the submerged parts of the United States have been discussed in numerous articles by McKelvey.[9] Sulfur is recovered from elemental sulfur deposits associated with salt dome cap rocks off shore and on the shelf and from hydrogen sulfide in sour gas and crude oil throughout the country. The estimated U.S. salt dome sulfur reserves, mostly offshore, are 37 million tons and "undiscovered" reserves an additional 40 to 50 million tons. Recovery of 40 million tons of sulfur is possible from processing California onshore and offshore crude oil. The Bureau of Mines estimates world reserves of sulfur from all sources exceed 2300 million tons.[10] If we assume total world consumption of sulfur is 1000 million tons over the next 30 years, the existing known reserves of salt dome sulfur, which are the highest quality, have significant stock value.[11] On the other hand, presently known reserves of low quality sulfur deposits, estimated to be very large, would have small stock value and resources would have infinitesimal stock value.

Sand and gravel deposits have very large tonnage reserves and resources. In general, stock value is quite small, except specific deposits in specific locations may have significant stock value.

The deposits which may have a significant stock value are the manganese nodules. An indicator which shows that the nodules have value is the expenditure for exploration and technological research by business firms and governmental organizations. The nodules are classified as resources for two reasons. First because of deficient technology of commercial scale mining and processing. Second because of insufficient knowledge of their valuable mineral composition, areal extent and seabed concentration. Economics come third in this argument because without operational large scale technology and sufficient knowledge of their commercial existence, short run cost-benefit analysis tells us very little. For these reasons, an exact numerical stock value cannot be set on specific deposits. However, qualitative judgments of stock value can be made. That is, we can say that the Pacific nodules have more stock value than Atlantic nodules because presently known processing systems show lower cost for Pacific nodules despite their greater location depth.

THE INCOME VALUE OF MINERAL RESERVES

The second valuation concept involves the stream of income and costs flowing to and from deposits under exploitation. The income must be sufficient to cover costs of finding, mining, processing and marketing and return normal profit on the investment. Normal profit is that minimum return to the owner of the capital investment which just persuades him to keep his investment in the particular occupation. Rent from operating a relatively high quality deposit or quasi-rent developed from short run price fluctuations are yet not of concern.

Annual profit obviously is the excess of revenues over costs plus (or minus) the net change in asset value in that specific year, or in symbolic terms:

$$(1) \quad P = (V' - V) + (R - C).$$

That is, profit (P) in any one year is equal to the increase or decrease in the value of the investment in that year, V' is asset value at the end and V is asset value at the beginning of the year, plus revenue (R) minus cost (C).[12] Equation 1 is a most useful tool in the valuation of mineral properties. The first part of the right hand side of equation 1 is the change in stock value in any one year. As the operating mine depletes the net stock value may diminish during the year reducing profit. If the mine is not operated during the year and there is no cost, the stock value increases as discussed previously and this change in value becomes profit.

The second part of equation 1, $R - C$, is the revenue minus cost impact on profit. Notice that if the mine is operated and the stock value reduces, the revenue must make up for the capital loss as well as cover cost to make a profit. This means that a price higher than cost plus normal profit is necessary to show a profit (P) equal to zero. In economic equilibrium, when C includes normal profit as well as costs, if P is positive we have evidence of some form of rent at the property.

We can now summarize: The value of a mineral deposit is a function of remaining reserves of other deposits, rate of extraction of remaining reserves, technology, and certainty of existence of the particular deposit. Remaining reserves is significant because it indicates finiteness of reserve. Rate of extraction indicates the time span of exploitation and the demand for

[9]V. E. McKelvey, "Minerals in the Sea," *Ocean Industry*, Sept. 1968, "Mineral Potential of the Submerged Parts of the Continents," Mineral Resources of the World Ocean: U. S. Geol. Survey, Univ. of Rhode Island, U. S. Navy, Occasional Pub. 4, p. 31-38. V. E. McKelvey, F. F. H. Wong, *World Subsea Mineral Resources*, U. S. Geol. Survey, Dept. of the Interior, A discussion to accompany miscellaneous geologic investigations Map I — 632.

[10]Bureau of Mines, Commodity Data Summaries, U. S. Department of the Interior, January 1971, p. 145.

[11]H. Landsberg, *et al., loc. cit.*, p. 486.

[12]A discussion of the theory of valuation is found in Kenneth E. Boulding, *Economic Analysis*, Fourth Ed. Vol. I (New York: Harper and Row, 1966), p. 654.

the metal. Technology tells of the feasibility of exploitation and cost of extraction of the particular deposit. Certainty of existence is a probability function describing the state of knowledge of the deposit.

THE BONANZA COMPLEX

Mining investments may provide enormous profits to investors. The bonanza complex gives mining a romantic interest that most industries do not share. In economic terms, a bonanza is a new discovery of a valuable mineral with cost of production far less than the marginal producer.

We live in an uncertain world without knowledge of all the deposits which may exist; chance alone may determine if exploration efforts discover a marginal mine or a bonanza. Now turning our thoughts toward the sea the same question exists: will exploration of seabed deposits and eventual production from found deposits produce a marginal mine or a bonanza. The answers to this question and its implications are significant. Many of the hopes of sea-minded entrepreneurs, both nations and corporations, ride on the expectations of bonanza. The discussions of regime of the sea conferences and, indeed, the draft treaty proposed by the United States last year implies bonanza conditions. Article 10 provides for royalties of from 2 to 20 percent of the gross value of minerals. The writers of the draft ignored the situation of no rent. The fact that there is now only small production of seabed-derived mining products tends to give an intimation that the ore may be marginal with little available rent.

If the seabed becomes a major source of raw materials, for technological reasons we can expect that initially there will be little, if any, rent. The first mines will be highly experimental. As these mines progress on their technological learning curve, the possibility for rents to develop increases. Then, two conditions may exist: mines with and without rent. We may hypothesize the motives of the corporate investor. They will not participate in the development of mines if the return is only normal profit. The corporate investor will seek the higher present value investments and the probability of the occurrence of high quality deposits may be greater on the land than on the seabed. The nation investor may be less concerned with economic factors and may accept a low or even negative profit for their investments. An investor who operates a rich mining property can pay a royalty. However, suppose a nation such as Japan which currently is testing mining systems to acquire manganese nodules, develops a marginal mine. The profits of the mine may be close to zero. Imposition of a royalty may cause negative profits and extreme resistance toward payments.

The question of the size of the potential rent, if any, that may develop in seabed mines is significant. Can the law be different if corporate rather than nation investors become the miners? The law of the sea must be designed to fit the characteristics of the possible entrepreneurs. The answers to the legal questions of tenure, safety, taxes, royalties, multiple use, pollution and all the other major points of contention will be different if public rather than private investors develop mines. These questions are difficult to answer because of the paucity of information about resource quality.

TAX INFLUENCE ON VALUE

Taxes, which are an immediate outflow of income, reduce profits either by altering the stock value, reducing revenue or increasing cost.[13] Taxes on mineral stocks are used not only as a revenue producing device but also for purposes of national policy. As revenue producing instruments, taxes have as their primary objective the recovery of rent; while as policy devices, their objectives most often are encouragement of exploration, investment, and slowing or increasing the rate of mineral production.

On the seabed, at this point in time, we are mainly interested in the value of deposits in the pre-discovery or initial discovery state of certainty. Value does not commence with discovery. Minerals have value even if we do not know where they are located. Investments are made to find the site of these minerals and that in itself is indication of pre-discovery value. We should examine first the value of marginal resources where marginal means that profit in equation (1) is zero. In this case the deposit is mineable at the margin. Any change in V, V', R or C caused by taxation will shift the deposit to the submarginal category because profit will become negative. Exploration or production will cease. The purchase of a license or imposition of property tax, royalty severance or income tax designed to recover rent from a mine which has no rent is a tax on investment and can only deter investment.

If tenure were assured and there were no rental or work requirement necessary to claim seabed resources, undoubtedly there would be an immediate rush by corporations and nations to claim the seabed. The United States Working Paper to the United Nations Seabed Committee does contain both rental fees and work requirements. It is my opinion that the rental fee section should be eliminated because this tax will retard exploration. We have insufficient knowledge of the quality of the resources. The value of the claim parcels is low and the rental fee may reduce the stock value (V'—V) rather than recover rent. If the stock value is reduced, the deposits will remain only resources. Instead of promoting exploration, investment and exploitation, the Working Paper fee concept will delay mining. On the other hand, work commitments, perhaps obtained through an auction system, would encourage exploration.

Taxation of operating mines can cause the controller to shift production forward or backward in time depending on the type of tax. For instance, a

[13] A thorough discussion of mineral resource taxation is found in Mason Gaffney, ed., *Extractive Resources and Taxation*, (Madison: University of Wisconsin Press, 1967).

specific severance tax per ton of ore mined increases the present value of future income because the future severance tax is also discounted. The tax results in a lower rate of current production and extends the life of the better deposits. This tax is discriminatory on marginal deposits because it may shift the present value to negative levels and force the deposit to the submarginal category. If the entire world had a unified severance tax, output would be restricted, the price of the product would rise and the tax cost would be shifted to consumers. The world does not have a unified tax system so the regions with a severance tax become high cost relative to regions without this tax. Exploration and production would shift to the lower cost region.

The intent of the United States draft treaty is to provide a regime which will encourage the development of mineral resources. If the draft treaty provides for taxation higher than other mining locations, the seabed mines will become high cost. The ocean mining industry is an "infant industry" in the sense that it needs encouragement even to the level of subsidization. The value of the seabed resources is so low that any tax which reduces even this small value will eliminate sea exploration.

Taxation of deposits that do have rent is entirely reasonable. These better deposits have positive profits and its current size can be found in a market for leases giving exploration rights. In fact if such a market existed giving acceptable exploration and exploitation tenure, exploration would probably be induced, the degree of uncertainty reduced and stock value increased. The low value deposits would be dropped and the higher value deposits developed or "banked" depending on the quality and taxation incentives.

THE RESERVATION OF DEPOSITS

The word "banked" means, in effect, to save the deposit from current exploitation with the expectation that the net present value will increase at a rate faster than the rate of interest. That is, $V'—V$ will increase in value faster than if the same wealth were returning interest. If there is a season for everything, there is a time when mineral deposits ought to be exploited. Mining companies tend to "bank" deposits which are uneconomic now but are expected to be profitable ventures in the future. Under acceptable tenure, the resource controller, whether it is a private or nation investor, will defer discovery and development until the deposit stock value stops increasing faster than the rate of interest. Value is influenced by the state of technology and certainty of existence of reserves. Exploitation of seabed resources should be deferred if the state of the arts is improving and exploration information is adequately disseminated. A test of the rate of change of the value of seabed deposits is to hold an annual auction of leasing rights for exploration to determine the rate of change of value.

There is concern that corporations or nations will claim areas of the seabed and "bank" them. This situation is quite possible because the cost of holding the properties is small. I suggest a property tax be levied on the claim based upon the value of the deposit and reassessed annually. In this way all rent would be recovered and the present value of the deposit would tend toward zero where no tax would be charged.

VALUE OF THE NON-PETROLEUM MINERAL RESOURCES OF THE SEA

It is now time to stitch together the fabric of our argument. As La Que has shown, the land reserves for copper, nickel, manganese and cobalt — the prime components of manganese nodules — are quite high compared to rate of use.[14] Reserve tonnage of most other seabed minerals is sufficiently small as a proportion of total reserves to forecast existing land reserve life in excess if 50 years for almost every mineral. Technology for exploration, development and production of most offshore minerals is still in a primitive state. There are exceptions of course, such as the Frasch process for recovering sulfur in salt domes. This means that knowledge of the existence of minerals, i.e., their quantitative and qualitative parameters, is still at a very low level. The present value of mineral deposits is a function of the total world remaining reserves, rate of world use, technology of acquisition, and certainty of existence of reserves and resources. In a qualitative way we can infer that the net present value of most of the minerals on the seabed is quite low. The market price of the lease is an indicator of the value and the sale of the lease is a way of recovering rent from the deposit.

The "banking" of mineral deposits is useful to society. Mineral deposits ought to be exploited in order of decreasing quality. Forced deposit exploitation by taxation or subsidy methods before the rate of increase of stock value slows is an uneconomic use of capital and labor. However, reducing uncertainty through exploration may speed the increase in stock value and bring closer the date of seabed mineral exploitation.

Government can explore the ocean and obtain data to facilitate equal dissemination of information. This will eliminate or reduce the chance of monopoly control of exploration data. This system will also increase competition between internationally competent companies and allow the eventual taxing authority to obtain full rents if the assumption of better than neutral taxation is imposed. Elimination of secrecy will also reduce duplication of exploratory efforts.

At present there is no cost in controlling or owning seabed resources. The draft treaty proposes a taxation system which may retard exploration and exploitation.

[14] F. L. La Que, "Deep Ocean Mining: Prospects and Anticipated Short Term Benefits," *Pacem in Maribus*, (Santa Barbara: The Center for the Study of Democratic Institutions, 1970), pp. 17-27.

The eventual tax system can help encourage exploration and production of minerals, but development of a tax system which coerces mine development ahead of its time or inhibits exploration must be avoided.

Mining tends to develop a lottery philosophy where exploration is induced in hopes of finding deposits containing natural rent which can accrue to the finder. In the absence of knowledge about the minerals in and on the seabed, great expectation of high quality deposits are assumed to exist in the oceans. Nations as well as corporations accept this belief and seek to retain or prevent others from obtaining acceptable tenure for seabed exploration. Giving up the seabed is equivalent to giving up real national treasure. The social and political costs of giving up the patrimony of the people is greater than any reasonable benefits. At the same time the cost of retaining resources is less than their very low net present value. In this situation the problem of uncertainty of existence may best be solved by public exploration.

Discussion

Tuesday afternoon, June 22

Goldie: I would like to direct a question to Dr. Garcia Amador, since we are allowed to relate back to the earlier session. I was interested in the item you mentioned regarding the status of what we call CEP Country claims—that is, the presentation that those claims permit freedom of navigation rather than merely innocent passage. This does not altogether gibe, I respectfully suggest, with what so many of us have unhappily believed to be the nature of those claims. If I may reformulate my question rather specifically: Do you think that the CEP States, especially Brazil, are as permissive as your thesis would indicate with regard to, for example, scientific research activities by United States scientists engaged in disinterested investigation on the high seas but within the zones of maritime jurisdiction Brazil now claims?

Garcia-Amador: Brazil is one of the three countries that I mentioned as claiming a territorial sea in the strict sense of the expression. The Brazilian Law of 1970 does not recognize freedom of navigation other than innocent passage. Therefore, the 200-mile Brazilian territorial sea is a maritime space where the only rights recognized are those of the Geneva Convention of 1958 on the Territorial Sea and Contiguous Zone. It does not recognize any rights other than innocent passage; so what you can do in this 200-mile zone, insofar as freedom of navigation and other freedoms of the high seas such as scientific research are concerned, has to be done in accordance with the law of Brazil in this respect. In this connection, I do not know of any other law in addition to the one of 1971 establishing, for fishing purposes, two zones, one of 100 miles and the second for another 100 miles. In other words, there is no law that I know under which freedom of research is recognized within the 200 miles. Scientific research is a freedom of the high seas, not of the territorial sea as is innocent passage.

Rothschild: I would like to address a question to Mr. Drechsler concerning his valuation of our mineral resources in the ocean. I wonder whether his scheme for valuation would have to be amended given possible increases in recycling technology?

Drechsler: The recycled products really can be considered another ore reserve. In the copper industry, nearly one-third of the copper consumed annually comes from scrap copper. In the aluminum industry, I am not sure of this figure, but I think scrap contributes around 20 percent. As more copper and aluminum are produced, there is more recycling material which enters the system so that we have a continuing and growing stock. In effect, scrap is a mine which is feeding back into the consumption system. What this reserve is doing is reducing the value of the seabed resources because it is extending the life of the existing resources and reserves.

Craven: You are dealing with minerals. I would like to ask you a loaded question. When one applies your model to the oil industry to find out whether indeed we get oil resources in the same valuation by which your model would indicate your society could do it, we come up with all the wrong results. We all recognize that offshore oil exists because of a strange depletion allowance and other factors which have, as your earlier speaker well pointed out, put the price so far up on production value that almost any inefficient way of extracting the oil from the ground will produce a healthy profit so long as it stayed within this structure.

The question I ask is why do you expect that minerals will not follow oil in the direction of the exploitation as you propose it?

Drechsler: The fact of the matter is that mineral prices have very well followed the oil model indicated by Professor Adelman.

In many studies, going back to 1889, the price of a vast group of minerals has declined in this entire span of time. However, within the last ten years, there have been some slight changes in the rate of decline; and in some cases the rate of decline is reversed and becomes positive instead. In other cases, price went up rather than going down and this activity may very well be a function of the state of technology. It is very difficult to compare technology in different periods of time. We can't use today's technology and look backwards and compare today's deposits to the types of deposits we mined years ago and we can't take the type of deposits we mined 75 years ago with 75 year old technology and compare them with present deposits

and current technology. The most significant major technological innovation in mining occurred in about 1914. This was a shift from high-grade selective mining to low-grade non-selective mining. That change showed up as a drop in price. Since then there may not have been any major changes in technology. This could explain the slight rising in price today. Now in regard to oil, I try to define the mineral model in terms that exclude oil because it is not a stock resource in the sense of a mineral deposit. Oil moves in the ground. A mineral deposit is fixed. Some of the economic problems of oil exploitation therefore are quite different from those of mining exploitation. I don't know a great deal about the underlying theories of oil, although the mineral model seems appropriate if we consider all of the factors of technology, state of knowledge, and so forth. Also, there is an assumption that the markets are competitive in the mineral model.

In oil, the markets may not be as competitive as they are in most of the minerals, which is another factor here. Perhaps you might want to make a comment on that?

Adelman: In the United States, offshore oil simply happens to be cheaper than a great deal of the onshore oil. If therefore there were unrestricted competition, it would tend to back out a good deal of the onshore oils.

Garcia-Amador: I have found some information about the question which was raised earlier about the law of Brazil. In the law I referred to, the decree law No. 1098 of 1970, there is a paragraph which deals with the subject in this respect. Sub-paragraph 3 of Article 4 of the Decree Law reads as follows: "Special regulations for fishing research and exploration of the 200 mile territorial sea may be defined by international agreements in principle on the basis of reciprocity." To my knowledge, Brazil has concluded some fishing agreements, but none in the field of research.

Gorove: I also would like to address myself very briefly to the statement of Dr. Drechsler. I think to take simply the viewpoint of an economist would be too narrow a view. I think not just the value from an economic viewpoint but also the value from the vantage point of other value processes should be considered. Sometimes there may be strategic values, psychological values and a number of other things. I think the totality of the value processes, based on Professor McDougal's well-known framework should be taken into account together with the institutional impact on the value processes of the community.

Drechsler: The word "value" actually has many significant connotations which range in mining from use value to exchange value. In some cases, the word has spiritual value—like the SST. The essential point is that I recognize completely what you are saying and I accept that there are many "values" to these minerals in the seas. The minerals have value in terms of income generation; the minerals have value in terms of raising the levels of education; in raising technology, raising standards of living for people living in developing nations.

My intention in this paper was to develop a framework, a very narrow framework, which I obviously succeeded in doing, and that is the framework that will enable you to understand what the economist and what the mining engineer is saying. In your future negotiations, you are going to be dealing with the economists and mining engineers from time to time, and in this world babble of languages, the same word may have many meanings. So I am very pleased at your comment because it obviously shows me that I achieved my purpose.

Johnson: I want to ask Professor Adelman a question on the exploration of oil fields. What would you give as a kind of prognosis in nationalization of an offshore oil field such as you intimated during your discussion? What happens there? Is it any different from exploitation on land, and if so, what does the future hold for this kind of nationalization?

Adelman: I think we make a mistake if we think of nationalization as being some kind of cataclysmic event, a matter of either/or. It may be that, but it is unusual. The concession company has a number of rights, including the right to earn profits; and what the sovereign government wants is as much of the profit as it can get without driving the concessionnaire away. They may try to take it all in one gulp, or take it one slice at a time.

But please note one modification. There is a real desire on the part of governments to run their own show even when they would make more money as the passive recipients of revenues. They may prefer being master in their own house to making more money.

McDougal: Mr. Chairman, the exchange between the professors, especially in the remarks by Professor Drechsler, has anticipated some of the things I wanted to say.

Our speakers have very generously and ambitiously attempted to outline a model for guidance of decision, but as Professor Drechsler's last remarks indicated, I think it is a model much too narrow for our purposes. There is of course a difference in terminology here among professionals, and perhaps we should make it clear that for lawyers or social scientists more generally "value" need not be either "price" or something metaphysical. It is simply what people demand: the projected relations between human beings. People demand not only wealth, economic value, but they also demand, as Professor Goldie has emphasized, knowledge, respect, health, and security; they may demand simply freedom from arbitrary coercion and freedom of choice and movement. All of these things have to be taken into account in a rational design for law. We lawyers recognize this generally in defining a resource as a potential value, a factor affecting the

creation or achievement of peoples' basic demand for values.

The most useful distinction between resources, which I would develop as a basis for argument tomorrow, does build upon certain words that Professor Drechsler used (the conservationists make a much broader reference by these words), the difference between stock resources and flow resources. By stock resources, conservationists mean resources that have a finite quality, that are exhaustible. By flow resources, they mean resources that become available in different periods of time, perhaps in different quantities. Such resources may be either exhaustible or inexhaustible. They may, or may not, have a critical point, a point of no return in use. Lawyers have added a third type of resource, "space-extension resources," which, like the surface of the oceans or air space or outer space, are principally useful for movement.

Any rational policy has to take into account all these differences in the types of resources and all the different demands for values that people make on such resources. Many features in the process by which these resources are exploited may affect the production of values. Precisely who are the potential users, the probable consumers? What are the geographical, temporal, and institutional features of the context in which exploitation goes forward? What are the relative bases of power and capabilities available for exploitation? And so on. We need a much more elaborate model to project relevant policies.

To relate this to the discussion this afternoon, one would need to know much more about the fish and mineral resources under discussion. One would need to know about the magnitude and exhaustibility of the mineral resources and the point of no return in the exploitation of the fish. Many other factors would be relevant in particular contexts. A great many people have disparaged the Truman proclamation, asserting it to be a grab for stock resources. There is little basis for such. Minerals and fish should be treated very differently, and a policy that would be economic, in the sense of our speakers, must make very minute distinctions, not only between minerals and fish, but between different types of fish—their location, the whole process by which they are exploited. Some fish might be best exploited by monopoly. Others might be best exploited by the historical processes of freedom of access. I merely wish to suggest that the model proposed to us has a place; it is not by any means a model adequate to serve all our purposes.

Adelman: There is no question that you may want to serve non-economic values; in fact mostly they take precedence, but each of them has an economic cost. When somebody elects a non-economic value and elects to pay the price, you can't possibly quarrel with him. You shouldn't try to talk a man into liking you or not liking you. The real quarrel comes, I think, when people try to have it both ways where they don't want to pay the price.

Vargas: Concerning the position of the Latin American countries regarding the scientific treatments that were mentioned here, I would just like to say that I point to the legal position of the American countries; they are applying the same principles that this nation applies regarding scientific freedom. All of the Latin American countries recognize, as legal principles, the existence of this right. As a matter of fact, Brazil, Peru, Chile and Equador have very intense scientific research activities in their oceanic areas, and I can anticipate that this will increase before and after the 1973 Conference. Most of these scientific research activities are being undertaken by known Latin American entities, so that in that sense the scientific endeavors and scientific inquiry have not been impeded by legal positions adopted by these countries.

Also, this afternoon certain statements were made in connection with innocent passage, and I would like to reemphasize the fact that innocent passage, according to the precedent of international law, does not include the right of fishermen to carry out exploitation. This is in accordance with universal international law, both customary and agreed upon.

Finally, I would like to touch upon an emerging concept also connected with innocent passage. This morning one of the members of the panel, Dr. Knauss I believe, referred to the exercise of rights of innocent passage. If I understood him correctly, he suggested that this right of innocent passage should include the exercise of submarines to go, let us say to a port; again it is my impression that this would be a most contrary principle according to precedents in international law.

Knauss: I would like to make several points. I am well aware that under innocent passage, submarines do not have a right to travel underwater. I do not think I suggested anything to the contrary; if I did I certainly did not intend to make such a statement. I think I did say that I do not quite understand what the term free passage means. There may be some question, if this term is accepted, whether or not free passage will include the right for submarines to travel submerged. Entering a port, presumably implies entering a nation's internal waters. So far as I am aware, free passage, however it is defind, does not apply to internal waters.

I am tempted to say something about the point that Mr. Vargas made on the Latin American position on scientific research. I am delighted with his statement. However, having sat across the table from Madame Flouret a year and a half ago at a UN meeting, I am afraid not all the Latin Americans would agree with Mr. Vargas. I wish it were otherwise.

Finally, if I may address a third question to Professor Adelman. You said something which I found very surprising, assuming I understood you correctly. I wish you would elaborate on the answer to a question which Dr. Craven asked you. You indicated that the true cost of offshore oil in this country, up to depths of 100 meters, was less than the cost of onshore oil.

I was not aware of this, and I suspect that most of the people in this room, at least the non-oil people, were not aware of it either. I am curious as to why, because I can think of a lot of reasons why offshore oil should be more expensive.

Adelman: An old teacher of mine, a very great man, Joseph Schumpeter, gave me this advice: "Beware of averages." I forgot a lot of things he told me, but I have not forgotten that. There is no such thing as cost of offshore oil or cost of onshore oil; there are an array of costs. A big prolific offshore deposit costs less than a small non-prolific onshore deposit. But particularly in the state of Louisiana, which is by far the biggest, you have in effect a preemptive right for a great many small, less prolific onshore deposits because of state regulations.

If you did not have this regulatory scheme, you would have an expansion of output in the large offshore reservoirs and you would have a contraction of output in the small onshore reservoirs. They would meet somewhere at a margin.

Garcia-Amador: I would like to thank Mr. Vargas from Mexico for the clarification he made about the practice of Latin American States regarding freedom of scientific research in the territorial sea. I want to emphasize again that if you practice scientific research in a territorial sea, it is only because the State authorizes you to do so. In other words, scientific research in the territorial sea is a concession.

Flouret: At the Sixth Session of the International Oceanographic Commission the Latin American countries members of that Commission made it clear that they were unanimously opposed to freedom of scientific research in territorial waters, as it was provided in the original version of resolution VI-13, drafted by a special working group.

After a lengthy discussion, that resolution was amended by the plenary in order to subject the freedom of scientific research in those areas to the consent of the pertinent coastal State and to the participation of that State from the planning stages of the research. The resolution thus amended was adopted unanimously.

One year later, in August 1970, at a meeting on the Law of the Sea held in Lima (Peru), the principles of resolution VI-13 were incorporated in a resolution unanimously adopted by the Latin American countries present at the meeting.

The same position was adopted by the Latin American countries represented at the last General Conference of UNESCO held in Paris in 1970, during the discussion of the new Statutes of the IOC.

Christy: I would like to ask Professor Adelman a question with respect to his conclusion that deep-water oil development might lead to an international commodity agreement of some sort among the producing States. I am not sure what the implications of this are for the proposed U.S. Draft of the Convention but it may be worth thinking about. What would be the effect of an international commodity agreement on those aspects of the U.S. Draft Convention such as a uniform royalty, a uniform sharing of these revenues, and uniform kinds of controls over pollution?

Adelman: I did not want to give the impression, and I am afraid I did inadvertently give it, that international commodity agreement was the most probable outcome. I think that it is a possible outcome. The odds are fairly good that an attempt will be made enjoying very wide support to institute such an agreement, but I would not care to name the odds of it ever coming to pass.

Now, assuming for the sake of argument that it does come to pass, I do not see any organic connection between that kind of an agreement and controls against pollution, which I think are independent of any other kind of regime. As for the other points that are mentioned, the uniform royalty and the uniform sharing and so on, I think that these are compatible with an agreement of that sort, but not necessarily required by it. I think that the draft agreement is a pretty loose-jointed document, which can be fitted into quite a number of international regimes.

Park: My name is Park from Seoul, Korea. During the coffee break I was talking with Mr. Brooding of the North Pacific Fisheries Commission about the salmon fisheries in the North Pacific areas. My question is about the principle of abstention applied there. Under the principle of abstention, Japan abstains from fishing salmon in some part of the areas. In the past few years, Korea has been making some advances to fish salmon in the same areas, only to be dragged away by the other three countries.

My first question is, to what extent is this principle of abstention in conflict with the principle of the freedom of the high seas. Or would you just say that it is in keeping with the freedom of the high seas in the sense that every country is free to use the sea as its fishes' swimming pool? My second question is, what would be the conditions, besides ecological or historical grounds, under which a newcomer State can fish in the particular fishing ground? My third question is, is the principle of abstention really a principle of international law that deserves the name of a principle?

Kasahara: I will answer the first question, but refer the others to Mr. Popper of FAO. As far as I am concerned, "abstention" is a form of allocation: all to one side and nothing to the other—in theory, but not necessarily in practice.

Popper: I am not sure that I am the right person to try to answer the questions, but I think that in an earlier reply to another question it is perhaps indicated what the answers should be. Let me digress a bit because I think it is important to recognize that the law of the sea, as applied to fisheries, needs to be of a different character from the law of the sea as applied to mineral or other resources.

This question, which sometimes is referred to as a question of conservation, is of particular importance in the field of fisheries, because unlike mineral and oil resources of the sea, the fish resources are very largely exploited already and the danger of waste is very much greater. Now, in the particular case of the North Pacific salmon, we have a fully exploited resource, and such resources of course exist in many other areas. One of the problems that has not found a satisfactory solution under the existing system of international law, where many of these resources are governed by international convention, is this question of the distribution of the fishery resources among the exploiting countries. Dr. Kashara has indicated that one of the valuable results of a study of the law of the sea in preparation for the 1973 Conference will be to develop some principles which would underlie or facilitate the conclusion of specific treaties. One of these would have to relate to the admission of newcomers, but this is just one aspect of the distribution of the resources of the fishery.

The same difficulty arises when it is a question of distributing the proceeds of the fishery among the present fishing countries, because their shares are not necessarily the same.

I have no immediate answer to give to the question of what the principle should be. I can only indicate that some principles are beginning to emerge in discussions in various regional fisheries. One that perhaps needs emphasis was developed by the Indian Ocean Commission, which came to the conclusion that in developing the Indian Ocean, any present exploitation of a fishery by certain countries should not preclude the entrance into under-developed portions of that fishery by other countries.

One can perhaps foresee principles which would take into account these various interests; one that was mentioned earlier is that of the interest of the historical fishing nations as against the interests of the newly developed fishing nations; and in different fisheries, perhaps different percentages could be moved from one category of participants to another.

Another thought which might be worth considering is whether such transfer should perhaps be accompanied by some form of compensation, at least in some cases. The thought I had in mind is that a country which is losing certain rights might be compensated some way or another, financially perhaps, by the other country. Again, this would not necessarily be something that could be applied across the board. Developing countries might have preferential rights. All this is possible, but it does indicate a distinct complexity of these problems of conservation which cannot, to my mind, be resolved by simple reference to territorial consequences.

Panel: Intangible and Non-ocean Elements to Be Negotiated

Joseph S. Nye, Center for International Affairs, Harvard University

Wednesday morning, June 23

I am going to try to start the discussion of intangible and non-ocean elements by being abstract, and Ed Miles has promised to get down to the seabed for us. I would like to make some observations about the way in which we approach the international political setting for the 1973 Law of the Sea Conference. I have been struck by the State-centric nature of the discussions I have listened to in the past couple of days. This is characteristic of most discussions in international politics.

People usually speak in terms of a fiction world of "billiard ball" States possessing a thing called sovereignty. They ask, "What is the position of such and such a State on such and such a policy?" This assumes first that States are the only significant actors in world politics, and second that States act as units. Now, these assumptions are not completely wrong. As a first approximation this State-centric view tells you something, but it does not tell you enough. It is rather like fishing with too large a net, so that a lot of things are missed.

I would like to suggest the use of some smaller nets to catch more specific actors and policies. I refer to a transnational relations perspective that catches the private foreign policies as nongovernmental actors as well as the wide variety of different governmental policies which can be seen when we think of governments as coalitions of competing bureaucracies. In short, I suggest that we reject the two assumptions that I think people generally make.

Let us look first at the assumption that States act as units. If you look at the United States government, there are some 44 State bureaucracies that are directly represented abroad in international affairs. If you take an embassy like the United States Embassy in London, only 20 percent of the personnel there come from the State Department.

Of course, you can overdo this. On some issues States act more as units than on other issues. This is particularly true of the security area. When clear-cut security issues are at stake, I think you find more centralization and a better approximation of the image of the billiard ball. Yet even where security issues are at stake you will find that different bureaucracies interpret reality in different ways. Graham Allison's recent study of the Cuban Missile Crisis makes this very clear.

The second assumption—that States are the only significant actors in international affairs—ignores the

existence and increased importance of a number of transnational organizations, such as multi-national enterprises, labor unions acting abroad, religious organizations, foundations, or private groups of scientists. It may be true that governments of States usually prevail in open clashes with these transnational actors; but this is misleading because it focuses on the extreme cases of public clashes. More often you find coalition and alliances and various bargains being struck in which the transnational actors are more significant than usually meets the eye.

Particularly important among transnational organizations are the multi-national enterprises. We talk a lot about voting in the United Nations, but some 85 corporations have sales larger than nearly half the States in the UN General Assembly, or to put the point another way, more than half the States that will be represented in the 1973 Law of the Sea Conference. Overseas production by the firms of the ten leading capital exporting nations is at least twice the value of trade among these States. This is affecting the content of international politics. Security is no longer as dominant a concern as it was, let us say, ten years ago. I think it is also much more difficult to separate the high politics of status and security from what is often referred to as the low politics of welfare concerns.

Let me give you a few examples from the newspapers you have read in the last month. The monetary crisis in May was touched off by different rates of inflation in the developed countries. This led to a great flow of funds into Germany, and this in turn led to questions about the withdrawal of U. S. troops from Europe—obviously a major security issue. Similarly, U. S. textile questions have become thoroughly intertwined with the return of Okinawa to Japan. To take yet another example, I think one could argue that New Zealand's diplomacy today is much more concerned with butter than with guns.

What does all this have to do with the United States role in the 1973 Law of the Sea Conference? One can expect that this role will be quite different from 1958. It is now quite commonplace to argue that the United States foreign policy is turning inward. There are a variety of reasons for this. The most popular is Vietnam and "lessons" of Vietnam. If you want to go deeper you can argue that there are long-term cycles in U. S. foreign policy. Frank Klingberg predicted in the early 1950's that there would be an inward-turning cycle beginning in the mid-60's. Another reason sometimes given for the inward turning attitudes is the increased degree of detente between the superpowers and the diminished influence of ideological aspects of the Cold War.

A fourth reason sometimes cited is the nature of current economic and technological changes which increase the interdependence among the developed market economy countries while diminishing the importance of the lesser developed countries. Finally, one can point to the growth of a service economy in the United States. Some 40 percent of the labor force is involved in services, and it is argued that the service sector is a less outward-oriented sector of the society. Lawrence Krause even titled an article in the new journal *Foreign Policy,* "Why Exports Are Becoming Irrelevant."

It is misleading to argue from these trends, however, that the United States is entering a "new isolationism." That is far too simple. Public foreign policy may be turning inward, but private foreign policies continue to turn outward. It is a better estimation of reality to see a variety of public foreign policies interacting with a variety of private foreign policies. Some are turning inward, and some are turning outward. I think this suggests some particular questions one might ask about a Law of the Sea Conference in 1973. I must confess that I can only ask questions rather than give answers since I am completely new to this area of the oceans. But it seems to me that we should ask what are the common transnational interests that would be present at a Law of the Sea Conference. Would these be in oil, fisheries, navies, or among scientists? What kind of coalitions, government or intergovernment, international, or transnational could be formed? What are the stakes? What are the actors' resources? What are the terms of the bargains that might be struck?

I was intrigued with Professor Burke's presentation on Monday when he was speculating about the effects of the 200-mile limit. He suggested this would be adverse to scientific research. Who would come to the scientists' aid? Would they get support from governments? Would they form transnational groups among themselves to put pressure on governments? Would a 200-mile limit create incentives for scientific organizations to give technical assistance to their oceanographic counterparts in less developed countries so they could leap over the impediments created by a 200-mile barrier? I don't know what the answer is, but it seems to me this is an element of the speculation that has to be brought in.

Similarly, Professor Burke mentioned exploitation of fisheries. Would the presence of multi-national enterprises in the fisheries concerned make any difference to the exploitation that he was discussing? Would a 200-mile limit create increased incentive for firms to jump the protective barrier and invest in lesser developed countries? If you had several corporations which became a fisheries oligopoly, would they then develop a global interest in the preservation of fishing stocks?

Professor Adelman's discussion of oil yesterday made the point that there is an alliance or a symbiotic relationship between the oil companies and the oil producing countries. If you like, it is collusion against the interests of consumers in the rich countries of Europe and Japan. This means that posted prices which he mentioned yesterday are something in the nature of sixteen times the cost of production. It is not too surprising that in a situation like this there

is an incentive to preserve the economic structure. But what would happen if a set of extraneous political causes, whether it be Israel's policies in the Middle East or whatever, led to the existence of a number of new nationalized oil firms which led to a breaking of the oligopoly structure and a bidding down of oil prices? In a situation like this would the international regime become of more interest to the oil companies? In a world of growing nationalizations, would they decide that the international regime which looks like a second best solution now might become a first best solution? Again, I do not know the answers, but they seem to me the kind of questions which should be raised.

A second set of questions concerns the arenas in which ocean politics are played. Which arenas allow transnational coalitions to form and which discourage them? Are specific conferences or regional conferences or global conferences most likely to benefit one group of interests or another? From the point of view of some interests, it may be better to have a regional or functionally specific conference than to have a global Law of the Sea Conference. I mentioned that national security is a major resource for executive control, for centralizing policy and trying to make a government act as though it were a unit. I think that those most concerned with security should prefer a global conference. If this is true, why are not fisheries and science people trying to get away from a global Law of the Sea Conference? Are they not afraid that their interest will be traded off for the preservation of, let us say, free passage through straits? It seems to me this aspect of the trade-offs and who is going to get traded off is something which should be discussed when you try to talk about States' policies, rather than talk simply about the position of such and such a country.

Who would benefit from a Law of the Sea Conference? Yesterday, Mr. Ratiner asked a question: "If we have vital interests, why are we going to a Law of the Sea Conference with 120 nations?" I took him seriously and thought about it for awhile, and could not figure out the answer. He suggested that it was either a general conference, or the dire predictions made by John Craven. But if U.S. attitudes turn inward, is the Craven prediction likely? I do not see the Department of Defense or the U.S. public in general getting into a situation in which they are going to use sanctions to enforce a particular use of the sea. If the Craven outcome is not a likely alternative, why the pressure of a Law of the Sea Conference now? Perhaps if you look at this as a governmental foreign policy question and you do not look inside, you cannot understand it. But what if you ask the question of whether there is a bureaucratic struggle within the government? Perhaps the security bureaucracy is pressing for a Law of the Sea Conference because its intragovernmental position is stronger *now*?

These are sheer speculations. I frankly am a complete newcomer in this area, and I am basically a fresh water fisherman. Whether the conceptual nets I suggest will work and whether there are any fish there or not, I am too new to know, so I leave it to my colleagues to tell you.

Edwin Haefele, Resources for the Future, Inc., Washington, D. C.

Wednesday morning, June 23

This panel should have had a title, and the title probably should have been "Three Discussions in Search of a Paper." As I recall each of us was approached to write a paper, but each replied that he would be a discussant. The organizers of this conference took us at our word; and we have three discussions and no paper.

I want to start by calling your attention to what I term the queueing phenomenon which I have been observing here for the last couple of days. It has to do with the coffee queue and the behavior of the delegates at this conference. I observed, as did Mr. Reich, three kinds of consciousness. In my observation, consciousness one are those who upon observing the queue go to the end of it. In consciousness two are those who upon observing the queue go to the front of it, on some theory of divine right, I guess. In consciousness three are those who upon observing the queue break into it, but look guilty about it. I might add, parenthetically, that the three kinds of consciousness seem to be distributed randomly across black and white, young and old, long hair and short hair, superpower and developing country. So at least we have one thing that unites us.

I say this not to criticize those of you who broke into the queue in front of where I broke into the queue, but to give you some feeling about the kind of problem we have in the "law" of the sea. Obviously what we need to do is to get more of the conciousness-one type of behavior, stamp out consciousness-two type of behavior, and provide a method of exchanging the guilt feeling of consciousness-three people with some kind of productive action. Any of you who know anything about psychology recognize this as a totally impossible task on the face of it, but I intend to make a few remarks anyway.

My remarks have to do with the institutions in which we act and the processes by which we act. I am going to be turning my attention to the device of a treaty or a conference, which is one of the crudest social choice mechanisms ever devised. To put it in historical terms, it is somewhere near the High Middle Ages in terms of social-choice mechanisms; but instead of having kings and nobles and clergymen deciding our fate, we have civil ministers and the military

and the lawyers deciding our fate. In both of these casts of characters, the safety and well-being of ordinary masses of people count for very little in spite of the fact that each of the characters takes upon himself the mantle of savior of mankind or some portion thereof.

In Anglo-American history, which is the only history that I have any familiarity with, we decided back in the 17th century that this was not an acceptable way to decide our fate. In the English revolution of that century we took control of our fate in our own hands and got rid of some of the more divine interpretations of who decides these things for us.

One can see when reading the newspaper how close we came again to losing our own destinies, since our destiny has again been put into executive hands—an executive that seems to be unchecked, defining all of our options and all of our future choices for us. I would, in other words, in Mr. Ratiner's phrase, separate the Defense Department from the rest of the government. I would even separate the government from the best interests of the people involved. So I suggest to you that a treaty or a conference which decides substantive issues is to put the important matters of law of the sea into too narrow focus, into the wrong hands, and to utilize a most crude mechanism indeed.

What alternative is there? After all, even that most distinguished of documents, the U.S. Constitution, put foreign relations into the hands of the executive branch of the U.S. government. Maybe we do not have a choice. I think Dr. Nye has indicated this morning that there is more there than meets the eye, more than the national "positions" about the sea. Perhaps we should raise our eyes from the processes of treaty making and negotiations and look at the more general framework of social choice mechanisms about which the Western World has had a great deal of experience, but not in the last couple of hundred years. In order to do that, I am going to have to go back a little bit and define and talk about social choice mechanisms and contrast them with the treaty or international convention.

A social-choice mechanism in general does these things. First, it produces a collective choice, a social choice by aggregating (which is a different word than adding) the preferences of the individual participants. Second, it can do this for any set of preferences, no matter how contrary they are to each other or how much in conflict they are with each other. Third, it is done in a fair, equitable manner; and the definition of fair and equitable is that no individual participant is weighted more heavily than any other individual participant. Fourth, it does not get stuck at any decision point not on a pareto surface. By pareto surface I mean that all non-optimal solutions are rejected. Social choice mechanism refers to a way of defining rules for solving problems rather than the solutions themselves. To make this distinction concrete, let me contrast what the 13 American colonies did after they became independent with what an international conference does. The 13 American colonies did not decide in Philadelphia the substance of very many issues. Instead of that they decided upon a set of rules whereby they would bind themselves in the future. Whatever substantive issue came up would be decided by this set of rules. The application of that analogue to the law of the sea problems may seem very remote to you. I am not, for example, so naive as to believe that the whole world is ready to duplicate what the American colonies did. But if we look closely at the discussions about the law of the sea, we can see James Madison's implied definition of a polity, which was heterogeneous population concerned with common problems. It seems to me that we can find an embryo of a polity in the discussions over the last couple of days—some international and transnational qualities, in other words, the sort of groupings that Dr. Nye just spoke to you about. I think they exist to some extent in ocean shipping conferences, in international communications, in air transportation, in fisheries management; and it may be that out of these areas and some others will in time come the law of the sea, not pronounced or negotiated but simply developed as law usually comes about. In order for that to happen, however, we must turn our attention from negotiating about substantive issues, about which most of you are concerned, to the negotiation of decision rules which can be used to decide these substantive issues. Then the billiard ball called the State and the State's pride will simply not be an issue.

I want to close by treading a little on the territory of this afternoon's panel, and raise some research questions that need to be discussed about such decision rules. There are two of them. The first is to confront the question of whose preferences we are going to aggregate, and I remind you that three hundred years ago in *national* decisions we cared not a fig for the individual's preferences; no one did. It never came up. It was not an issue. Today in the *international* scene between States we care not a fig about the individual's preferences, but I suggest to you that that time is fast passing; and in the future, we will have to care about individuals' preferences and those preferences will have to be appropriately represented in decision making across national lines.

The second research question is to confront the issue of how broad a policy area we need to construct in order for the process of aggregating individual preferences to take account of intensities of preferences about different issues. The raising of those two questions in an international framework would bring us historically just about to the end of Tudor times in England and the beginning of what was the most constructive era of constitution-making in the Western World.

Edward Miles, Graduate School of International Studies, University of Denver

Wednesday morning, June 23

I should like to begin by describing specifically the ways in which the structure of the international system has changed since 1958 and 1960, because I think these changes will shape the negotiation process at a future Law of the Sea Conference to a significant degree.

In the first place, there is a considerable increase in the number of States which are members of the system. In 1958 and 1960 respectively, there were 82 and 99 members of the UN, with 86 and 88 participating in the Geneva Conferences on the Law of the Sea. Of course, not all UN members participated in those conferences and some States which were not members of the UN also took part. In 1971 the UN has 127 members and this number will increase slightly by 1973. Not only the absolute number of States is significant, the *type* of State is even more so. Almost all of these States are developing countries which, to a large extent, accounts for the increasing salience of the North/South dimension characterizing conflict within the General Assembly and several other intergovernmental organizations (IGOs).

The international system has also been changed by the rather rapid rates of technological advance which have been occurring since 1958, particularly with regard to ocean use. While the decade of 1950-1960 did not experience much overt change in marine technology, the dramatic advances of 1960-1970 have rendered nugatory the expectations of the participants in the 1958 Conference, especially those relating to the exploitation of the continental shelf and the ocean floor beyond the shelf.

This rate of change is of especial significance for the politics of ocean management, particularly with regard to minerals and living resources because developing countries have been awakened to the potential which the oceans represent. Having been so awakened, they resent the concentration of capabilities in the hands of relatively few States. In reaction, they seek to extend the areas of the ocean which lie under their own exclusive jurisdiction; this means that knowledge production has become a crucial political issue affecting the oceans. This can be seen in attempts by many coastal States to control scientific research which is carried on by scientists of different nationalities in areas adjacent to their coasts. It can also be seen in the universal demands that all IGOs significantly increase the amounts of money and other resources allocated to education and training.

A third characteristic of systemic change is that international non-governmental organizations (INGOs), particularly those of the group belonging to the International Council of Scientific Unions, have a much greater potential role than ever before. These organizations are becoming increasingly salient to developing countries as relatively impartial repositories of scientific and technical advice. For the Secretariats of IGOs, also, these units represent pools of competence which may be tapped to increase organizational capacity to perform assigned tasks. Relationships which currently exist between IGOs like the Intergovernmental Oceanographic Commission and INGOs like the Scientific Committee on Oceanic Research, or between the FAO and the Advisory Committee on Marine Resources and Research, are prototypes of this phenomenon. In my view, this is a pattern that bears watching because, while these INGOs can be major additions to the resource bases of IGOs, they can also increase conflict between Secretariats and member States over the degree of autonomy the organization is to be allowed in carrying out its assigned tasks.

In addition to the changes described previously, one has to consider the effects of two other variables. The decreasing intensity of the Cold War, combined with quantum increases in Soviet naval capabilities since 1958, appear to have imposed a high level of complementarity of interests between the superpowers, at least on some issues. In fact, one can foresee that at a future Law of the Sea Conference, there may be some issues on which each superpower is likely to find the other his only major ally. The initial reactions to the first Draft Treaty on the Denuclearization of the Seabed in 1969 are instructive in this regard. The Canadians, Swedes, French, Italians, and to a certain extent, the British, demonstrated a less than enthusiastic response to the policies contained in the draft. One suspects also that the Romanians, Yugoslavs, Albanians, Chinese, and North Koreans may well have been raising similar questions within their own governments, if not with each other.

The point of all this is that the international political configuration has changed substantively; there are more players, particularly of a certain type, and the negotiation process is likely to be quite different from what it was in 1958 and 1960. Perhaps the most dramatic change lies in the salience of the North/South confrontation and the number of votes which potentially can be controlled by developing countries acting in concert.

In their article on "Bargaining and Negotiation in International Relations," Sawyer and Guetzkow[1] have listed a number of concurrent conditions which influence any process of negotiation and these are relevant for our purposes. These conditions are (a) the setting of the negotiations, (b) the number of individual parties participating, (c) the number of negotiating parties, (d) the amount of information each party has about the utilities of the other, (e) the amount of stress

[1] Jack Sawyer and Harold Guetzkow. "Bargaining and Negotiation in International Relations," in Herbert Kelman (ed.), *International Behavior*, (New York: Holt, Rinehart & Winston, 1965) p. 490.

impinging upon the negotiation and (f) the timing, duration, and phasing of the negotiation. One should add here the skill of the negotiator, which includes his substantive knowledge of the issue being treated.

All of these will be of significance in any future conference but perhaps factors (b) and (d) and the element of skill will be of greater importance than the others. By way of illustration, one claim of Ambassador Pardo can be used to demonstrate the way in which the number of *individual participants* can affect the negotiation. *CPR National Journal* reports Ambassador Pardo as having said the representatives of the U. S. oil industry who were attending the sessions of the Seabed Committee as observers in August, 1970, were lobbying with other delegations against the Draft Treaty tabled by the U. S. delegation at that meeting.[2] This penomenon is predicted by one hypothesis offered by Sawyer and Guetzkow who say:

> . . . the more open the negotiation, the greater the restrictions placed upon the principal negotiator by the presence of numerous experts with interests in separate parts of the proposals.[3]

Since the oceans represent a very large and complex series of sub-issues not all of which are compatible, one would expect the pressure on governments to be much greater than in cases where the issue is unified. As a result of this, the greater and more diversified the pressure, the greater the likelihood that governments will take action to insulate themselves from independent experts having intense interests in separate parts of the package. On the other hand, one would expect that oil companies and scientists are likely to form transnational coalitions to attempt to prevent their interests being negotiated without their participation. I do not expect such a development among fisheries interests who appear to engage in zero-sum fights with each other at both national and international levels.

The variables of skill and the amount of information each party possesses about the utilities of the other are also crucial, particularly for the developing countries. There is at least the potential for *sub-rosa* transnational coalitions to develop between these delegations and individual members of IGO Secretariats who may wish to see certain kinds of outcomes on particular issues. In addition, if it is possible for coalitions to be worked out between developing countries and scientifically oriented INGOs, and it may not be at this stage, then certain trade-offs could be made prior to the conference which could result in protection for scientific research at the same time that scientists increase the pressure on their governments to enlarge multilateral education and training programs in a dramatic but substantive way. Finally, the number of negotiating parties is a significant variable because, as Sawyer and Guetzkow point out, the larger the group, the greater the complexity of the situation since many more outcomes are possible.[4] In addition to complexity, however, a further cost of representativeness is efficiency. The unwieldiness of the Preparatory Committee is a vivid illustration of this and the physical setting of the Conference will have to be adequate for the larger number of participants and observers that one can expect as compared with 1958 and 1960.

Conditions Under Which Issue-Areas are Liable to be Used as Trade-Offs for Non-Related Values

I have been asked to consider the conditions under which ocean issues are likely to be used as trade-off for values that are unrelated to the issues being negotiated. This is a complex question and I do not have either the time nor space now to look at a sufficiently wide range of cases. What I am going to say, therefore, is essentially suggestive and individuals may wish to pursue the question for themselves. Let us begin by looking briefly at the problem of regulating international air transport.

Robert Thornton has documented the early relationship between airlines and empires, defined in terms of maintaining communication lines between colonies and their metropolitan centers.[5] From the very beginning airlines were made to serve goals other than the maximization of profit. Thornton offers many examples of this including the competition between the United States, France, and Germany over Latin America in the inter-war period through attempts to secure and control air routes by providing subsidies to local airlines. Or there are cases like Canada in which the government subsidized airlines to further economic development, particularly of mineral resources.

As a result of this, bargaining in the international arena is often guided by a range of utilities which are quite apart from monetary values. There are cases in which air routes have been used as trade-offs for wheat agreements or in which national airlines, like BOAC, are made to operate at levels below their economic potential because governments wish to subsidize the airlines of their former colonies for foreign policy reasons.

If we look, again very briefly, at the area of satellite telecommunication we find that, within INTELSAT, COMSAT would like to maintain the primacy of the profit orientation but this would entail almost complete United States domination of the organization. Such a condition is opposed by the Western European countries because they wish to keep a sufficient number of development contracts flowing to Britain and the continent in order to maintain a competitive electronics industry. When this is done, other members complain that the price of the product is increased because West European companies are not as efficient as American companies in this area of production. Different kinds of foreign policy questions are also involved in the management of satellite telecommunications given the

[2] *CPR National Journal*, September 12, 1970, p. 1977.

[3] Sawyer and Guetzkow *op. cit.*, p. 492.

[4] *Ibid.*

[5] Robert Thornton. *International Airlines and Politics*, (Ann Arbor: University of Michigan Press, 1970) pp. 1-19.

potential of these satellites for national development and the political implications of direct broadcasting by satellite.

If one attempts to compare the experiences of these two issue-areas with the oceans, one finds significant differences. I would suggest that the differences can be explained in terms of three factors. These are: (a) the type of technology and the patterns of use which it generates; (b) the salience of the issue to governments. This leads to a further consideration of the time at which the issue arises in the system and the concurrent sequence of events; and (c) the way in which the issue is put together. This last variable seems especially important because in the cases of both air transport and satellite telecommunication it is not possible to carve up the activity into separate packages. This means that infection by non-related utilities spreads immediately to the whole enterprise. The oceans, however, are different from the other two in significant ways.

In the first place, it is possible to break up the issue-area into separate packages which may allow *internal* trade-offs while it prevents infection by non-related utilities. This does not mean that one can escape trade-offs which, from the point of view of a particular activity, are irrational. It seems to me that this is essentially the situation in which representatives of the U. S. fishing and scientific communities find themselves when they complain that the Department of Defense is quite willing to trade away their interests in order to secure freedom of transit through straits. The net result of separation, though, is to restrict the degree to which non-ocean elements can enter the negotiation process.

Within some of the separable activities governments may play little or no role. The case of ocean transport is perhaps the most insulated of all, except when these questions are affected by political conflict concerning the Suez and Panama Canals. Otherwise, a number of factors appear to account for the high degree of insulation. These are: the oligopolistic nature of the industry, the primacy of the profit orientation, the strength and political capabilities of non-governmental shipping interests, and the complexity of the entire process concerning the setting of freight rates, routes, schedules, and the like. A complete analysis of these internal trade-offs will have to take a much closer look at the role played by national and international non-governmental organizations in making of policy at the *domestic* level, especially in the most capable States.

Even though I think that participants in a future Law of the Sea Conference can restrict the extent to which the issues are infected by non-related utilities, I do not think that they can altogether escape such infection. The most obvious ways in which such a mixing can take place are through the Arab/Israeli confrontation or through other conflicts which may arise in the international system, like Vietnam or Czechoslovakia, which may affect superpower relations, at least in the short run.

Another way in which such infection may occur is through the behavior of the landlocked States. In a recent paper, Bill Burke argues that trade-offs for the landlocked States will be essentially arbitrary and he fears that this will introduce some uncertainty into the negotiations.[6] On the other hand, the strategy implied by Mr. Prohaska yesterday suggests a way of reducing this kind of uncertainty. If several landlocked States succeed in phrasing the issue in terms of establishing an adequate international regime to control the distribution of resources, and if they successfully mobilize States with only short coastlines, States bordering marginal seas, and States with very narrow or no continental shelves, then the arbitrariness of trade-offs will be minimized, if not eliminated. In doing so, bargaining will have been shaped by the substance of the problems to be negotiated. I think, however, that the issue is a little more complicated than either one of these perspectives indicates.

If one includes Sikkim and Rhodesia, there are thirty-one different landlocked countries in the world of which twenty-six will soon be members of the UN. The geographic distribution is as follows:

South America:
Bolivia, Paraguay (2)

Western Europe:
Andorra, Austria, Liechtenstein, Luxembourg, San Marino, Switzerland, and the Vatican City. (7)

Eastern Europe:
Czechoslovakia, Hungary (2)

Africa:
Burundi, Botswana, Central African Republic, Chad, Lesotho, Malawi, Mali, Niger, Rhodesia, Rwanda, Swaziland, Uganda, Upper Volta, and Zambia. (14)

Asia:
Afghanistan, Bhutan, Laos, Mongolia, Nepal, and Sikkim. (6)

The first thing one should note about this distribution is that not all of these States will participate in a future Law of the Sea Conference and that, of those which do participate, not all will represent free-floating votes. Most of these States are already tied into or have links of some kind with a variety of regional organizations and trade-offs are likely to be made at the regional level before the conference begins. The largest number and the greatest potential diversity are on the African continent but even here one is dealing only with nine states. The assumption is that Rhodesia will not be allowed to participate and that Botswana, Lesotho, Malawi, and Swaziland, if they do participate, will vote with South Africa.

Even though I think that the danger of arbitrariness in trade-offs is not a very great one and that it will be extremely difficult for the landlocked States to form

[6]William Burke. "Some Thoughts on Fisheries and a New Conference on the Law of the Sea." Presented to the Natural Resources Public Policy Seminar, University of Washington, November 25, 1970.

a separate coalition, I agree that the competition for their votes will be intense and that, at least on some issues, they are likely to be in a strategic position for shaping the outcomes on particular votes.

There are two other possible sources of infection that should at least be mentioned. These examples demonstrate the impact of the salience of an issue to governments. During the 1960's Japanese investment in and trade with Latin America has grown slowly but steadily. In addition, Soviet trade has also grown along with the initiation of aid programs to Chile, Bolivia, and Brazil.[7] The addition of Peru to that list is not inconceivable in the near future. The question to be raised therefore is whether by 1973 or later this interaction will have increased to such a level that the Japanese and Soviet Governments would be willing to trade-off their position on any ocean-related issue for something else. There is nothing in the past negotiating behavior on ocean issues of the Japanese government that suggests to me that this is likely but it may be possible for the Soviet Union. The assumption is that since superpowers have generally the widest range of interests and involvements of any other kind of participant in the international system, the salience of any issue is a function of the political configuration of the system at that time, the priority assigned to particular geographic areas of the world, and the nature of domestic (including bureaucratic and electoral) politics.

The last problem concerns the question of the political consequences of reliance on overseas sources of supply for oil. In a future Law of the Sea Conference, what will be the demonstration effect of the recent OPEC negotiations on Japan, Western Europe, and the United States? One assumes that the OPEC countries will attempt to maintain their position on restricting competition from U. S. and Western European petroleum companies. But this kind of situation goes beyond the purely commercial and involves considerable security interests. What kinds of strategies and trade-offs are likely as a result? Will the negotiations be affected, especially for Japan, by the potentialities of the nuclear energy industry? Will the Soviet Union attempt to enter the Western European oil market and, if so, is this likely to have an impact on the negotiations? If so, on what particular issues? Lacking the necessary information, I have no answers to these questions. I think, however, that the effect of the OPEC negotiations, may be to expand the perspective from which the problem is approached, thereby including variables which are not strictly ocean-related.

[7] I am grateful to my colleague, Professor John McCamant, for bringing these trends to my attention.

Discussion

Wednesday morning, June 23

Idyll: It is refreshing to have people like Dr. Nye talk to us because they ask questions that are pertinent but which those in the profession assume have been answered to everyone's satisfaction. This is frequently not the case. One of the questions that he asks is why scientists feel that their work will be harmed by an extension of the territorial sea. He wonders if the scientists are not unduly alarmed by the prospect of a territorial sea extension. It might be worthwhile to reiterate the position of the scientists in this respect. If one part of the ocean is closed to international research, it has been suggested that the scientists could simply abandon that piece of the ocean. But the ocean is one system, and if observations on one part of this system are missing then the solution to some problems in oceanography may be difficult or indeed impossible to obtain.

The question is also asked that if the international community of scientists is to be prevented from going into a particular piece of ocean, why cannot scientists of the adjacent country be asked to collect these observations? Of course if they have the trained people and the ships available, and the inclination to do so, they can. If people and facilities are not available, they should be trained and created. The capability to do this kind of research must be developed in as many countries as possible. The training of oceanographers is expensive and difficult, and takes a long time. Many coastal countries do not have the desire, let alone the capability, of carrying out this training. In the meantime many scientific observations are lost.

Now the third thing asked is why the world community of oceanographers do not form a solid front to persuade their governments not to limit oceanographic research in territorial waters. I suggest that oceanographers already have tried to do this. The oceanographers, along with many other kinds of scientists, are perhaps the truest internationalists. If it were left to the oceanographers to solve this question, there would be very little problem because they agree among themselves that research is desirable, wherever it takes place. We have tried to persuade our government, and oceanographers in other countries have tried to persuade their governments, that this is so; but the issues go far beyond those of science, and beyond the capability of scientists to influence significantly.

The reason this kind of question has not been asked specifically before at this meeting is that we have gone over this ground so many times, and we have concluded that it is no longer a scientific problem but a political one.

Nye: I find that very interesting. The one part that did not come through to me was if you have a very asymmetrical distribution of scientists, oceanographers, most of them concentrated in one country, and if oceanography is a policy science as well as a pure

science, this may raise problems as to how you get a strategy for forwarding the interest of oceanography. I was wondering, in this kind of circumstance, whether the most acceptable strategy is using international organization to build up something on the other side to make the distribution more symmetrical. Again speaking out of ignorance, I wonder how much the oceanographers have supported technical assistance to less developed countries for the development of oceanography; and how much they have lobbied the government for support of the IOC and this sort of thing?

Christy: I was quite tantalized by the speculation that Ed Miles left up in the air. I would like to get him to expand on that speculation. He stated that the negotiations would be forthcoming for various reasons. The people who are in the process of making these negotiations would tend to isolate themselves from their interest groups and the interested public, and at the same time there would be an attempt on the part of the interest groups to get into the process; and he said it would be interesting to watch what happens. I would like to have him tell us what he might think would happen.

Miles: The result of that question may be to prevent my getting into any government office in Washington from here on in. But I do think that in any negotiating process if the issue is a single one, if you cannot break it up, then it is much easier for the negotiator to control the negotiation process from his own point of view and to handle and control the extent to which external demands impinge upon his own behavior. If, as in the case of oceans, this is not possible, and you have to put together a package that is extremely diverse and particularly complex and the units therein are separable, then the negotiator is going to be under a great deal of pressure from every unit which has an interest in the package that he has put together. From his point of view the best possible situation would be one in which he minimizes external demands upon him from within his own nation, let us say; and he controls the phasing and timing of the negotiation, particularly the attempt to use various parts of the package for trading off on other parts. Obviously, in a very decentralized situation people who have interest in separate parts of the package will not allow this, and the impetus for breaking in on the negotiator will take the usual forms: (a) try to get on the delegation; (b) if you cannot get on the delegation, at least send observers to the negotiation process and have them with a large number of other delegations; and (c) try to form coalitions of people involved in the same kinds of activity. This is Joe Nye's trans-national bargaining and coalitions here. Whether or not this is possible among fisheries people, I simply do not know. I should think it is at least as possible with the scientists as with the oil people, and this is minimally what one would expect.

Syatauw: The previous speakers have dealt with the billiard ball model and have clearly pointed out its defects. But I think that most international lawyers today do not accept that model anymore either.

What would be an alternative? What is worth considering, although it has some serious defects too, is the so-called center-periphery model so well described by Latin American scholars. As you know, in this model the center is represented by the highly industrialized western world, and the periphery by the developing countries; while a sort of dependency relationship exists between the periphery and its center. I am mentioning this because I was very intrigued by the interesting suggestions by Mr. Haefele to give more attention and more opportunities to existing organizations in such fields as shipping, fisheries, pollution, and air travel whenever new rules of international law in these fields are being formulated. I think that some of these organizations are exactly the organizations in which the dependency relationship is most obvious. Later on today we will probably go deeper into the problems of the world of shipping, but it is very clear that the position of the advanced countries with their large merchant marines is a very dominant one, while the developing countries whose merchant fleets are insignificant can hardly play an important role in these shipping conferences. The same thing can perhaps be said with respect to fisheries.

In other words, Mr. Haefele's suggestion will become more attractive only if the structure and operation methods of these conferences are modified. If they are not, then the developing countries will most likely prefer an inter-governmental conference like the previous two conferences on the law of the sea in which their interests are better represented.

Haefele: I must say that I agree with you. It is precisely on the point of changing the structure of such things as ocean freight conferences that work needs to be done.

Herrington: I understood Dr. Miles to say that delegations, by having members from industry, tend to reduce the flexibility of the negotiating process. I would like to refer to a situation where I believe the reverse effect holds. As you all know, United States treaties are subject to the advice and consent of the U. S. Senate. Sometimes the United States negotiators may go beyond their support and bring back an agreement which is very difficult to get through the Senate. I know of one agreement that a U. S. delegation negotiated with Canada which was never submitted to the Senate because the State Department knew it would not have a chance of being approved.

Having on the delegations a small number of competent people who understand the problems, men of stature in their communities and industries, gives the delegation additional flexibility. These men sit in the negotiations, hear the arguments and come to see at times that it is desirable for the United States delegation to modify its position. With this background, they can advise the delegates and better support the

final agreement when they return to the United States. This may greatly assist getting the agreement through the United States Senate. In my experience working in this way, we came back with many fishery agreements and never had great difficulty getting the United States Senate to give its advice and consent. Therefore, in my experience, it has been an advantage to have on the United States delegation a small group of knowledgeable persons who have stature among industry people and knowledge about the issues being negotiated.

Sargent: I would like to be presumptuous enough to try to clarify the Consciousness Three position suggesting that the inward-looking tendency which Dr. Nye observes does not preclude transnational machinery. If our foreign policy has been naive and idealistic in the past, it is somewhat naive and cynical in the present. Can we not hope that it will become realistic and idealistic in the future? It seems to me that the realistic position is that we can no longer act unilaterally on transnational problems. The idealistic position is that the United States itself must act through transnational organizations to meet these problems. The trend Dr. Nye sees as strictly inward looking is rather more dissatisfaction with our policy of unilateral moves. It does not preclude but rather encourages the transnational approach.

Pollution — Scientific Research

Warren S. Wooster, Scripps Institution of Oceanography, La Jolla, California

Wednesday morning, June 23

When the General Assembly of the United Nations decided to convene the 1973 Conference on the Law of the Sea, its comprehensive enumeration of issues concluded with "the preservation of the marine environment . . . . and scientific research." These two issues were further linked by the terms of reference of Sub-Committee III of the Preparatory Committee, which is to prepare draft treaty articles on both topics. One must interpret this as a marriage of convenience rather than as an indication that the Preparatory Committee understood the extent to which preservation of the marine environment may depend on preservation of the right to conduct scientific research in the ocean, and particularly in waters lying above the continental shelf.

During the previous law of the sea negotiations, many aspects of the marine pollution problem were still unrecognized, and the 1958 Conventions contain few pertinent sections. Principal reference (in the Convention on the High Seas) is to oil pollution and radioactive wastes, the other substances in our present chamber of horrors being mentioned only as "other harmful agents."

But marine pollution has come a long way since those innocent days. The relevant documentation has become so vast as to constitute a form of pollution in its own rights. In the next few years there will be three intergovernmental conferences at which anti-pollution measures may be adopted—the 1972 United Nations Conference on the Human Environment, the 1973 IMCO Conference on Marine Pollution, and, of course, the 1973 Law of the Sea Conference. The division of responsibility among these sessions is still obscure; perhaps the law of the sea should state general principles and responsibilities, leaving the elaboration of details to the more technical conferences.

Before speculating on possible marine pollution actions, I would like to state certain pertinent propositions:

1. The ocean has always been a sink for materials introduced from the land and atmosphere. It has some capacity for all substances that it so receives. When this capacity is exceeded, temporarily or permanently, and deleterious effects occur, the processes are called pollution.

2. The effects of marine pollution are most obvious in estuaries and other areas of restricted exchange with the open ocean, and in shallow waters— i.e., in regions most clearly subject to national jurisdiction.

3. Some deleterious effects are more serious than others, and it is essential to distinguish between the local, temporary degradation of amenities and the production of large-scale irreversible effects.

4. The marine environment in both its physical and biological aspects has always been subject to significant changes from natural causes; the changes attributed to man's activities must not be confused with these natural variations.

5. Although control of marine pollution is as much a political and economic problem as it is a scientific and technical one, scientific information is the prerequisite for prediction of the consequences of alternative actions. Rational management of the ocean as a receiver of wastes as well as an environment for the production of living resources depends, in very large part, on vastly improved understanding of the oceanic processes involved.

What intergovernmental actions regarding marine pollution can be anticipated from one or another of the forthcoming conferences? Desirable possibilities include the establishing of procedures for:

1. cataloging harmful substances, inventorying their production, and establishing water quality criteria and standards;

2. controlling discharge, deliberate or accidental, of harmful substances resulting from transportation or use aboard ships, or from coastal or underwater installations and activities;

3. determining baseline concentrations and monitoring environmental changes, man made or natural, together with systematic exchanging of relevant information; and, in many ways the most important

4. promoting and safeguarding scientific research to establish the capacity of the ocean for various substances and to improve understanding of the processes whereby pollutants are transformed in the marine environment and biosphere.

It seems inevitable that one or another of the conferences will also establish institutional arrangements to accommodate the special problems of preserving the marine environment. For example, there are proposals for a council in the United Nations, analagous to the Economic and Social Council, to coordinate all "environmental" activities within the UN system. Another plan is to establish an international center for research on the environment. In neither case is the term "environment" restricted in any way, so one must assume that all of oceanography and meteorology are comprehended. A proposed regime to manage the "international" seabed would have some responsibility to protect that zone from pollution. Each of these proposals will be judged on its own merits. Improved institutions are certainly required for handling the complex of problems in ocean affairs. But today's institution builders, be they ecological activists or benthic profiteers, appear to be designing structures that are highly tuned to their special interests. Yet these new institutions, once established, are likely to take over tasks that they are poorly designed to accomplish. In my opinion the present epidemic of institutional adventures immensely complicates the task of achieving the comprehensive institutional changes that are really required in the field of ocean affairs—of which marine pollution is only one aspect, and not necessarily the most important.

The problem of limitations on scientific research in the ocean is of recent origin. Before 1958, scientific research was universally regarded as one of the freedoms of the high seas. Claims of national jurisdiction were reasonably restrained, and most of the ocean was "high seas"; there were no special provisions for the seabed. The 1958 Convention on the Continental Shelf initiated a major change whereby coastal state jurisdiction was extended over an ill-defined shelf, and a consent requirement for research "concerning the continental shelf and conducted there" was imposed. At the same time, scientific research was conspicuously absent from the freedoms listed in the Convention on the High Seas. Thus began a period of increasing limitations on ocean investigation, subsequently accelerated by further unilateral extensions of coastal state jurisdictions.

The change in attitude toward scientific research was stimulated by an increased realization of the potential value of sea bed resources. The suspicion arose that a distinct advantage in resource exploitation accrued to the advanced countries that were conducting oceanographic research. The distinctions between research, exploration and exploitation became blurred. Subsequent debates in the new Seabed Committee and elsewhere have revealed little understanding of the nature of scientific research or its role in development, management and preservation of the ocean resource. Meanwhile, the possibilities of working at sea have been significantly and steadily reduced.

The Intergovernmental Oceanographic Commission in 1969 attempted to reverse the trend by its resolution (VI-13) promoting fundamental scientific research, in which a procedure was established to facilitate obtaining coastal state permission for such research. Implementation of this resolution has been bitterly opposed by a number of States, primarily in Latin America, and to my knowledge, the procedure has never been successfully used.

Many of us hoped that the General Assembly would include specific endorsement of the freedom of scientific research in its declaration of principles governing the seabed and ocean floor (Res. 2749/XXV). But the only mention (Principle 10) concerns international cooperation in peaceful scientific research through participation in international programs, international dissemination of results and strengthening of research capabilities of developing countries. Even this inoffensive statement was accompanied by a legal disclaimer. The U. S. Working Paper goes little farther, merely adding "Each Contracting Party agrees to encourage, and to obviate interference with, scientific research." It is hard to accept such statements as iron-clad guarantees, ringing endorsements, or even reassuring steps toward facilitating scientific research.

In an attempt to clarify the issues, the U. S. National Academy of Sciences Committee on Oceanography proposed the establishment of an international working group to evaluate the need for freedom of scientific research in the ocean and the obligations implied by that freedom and to examine the consequences for scientific research of the various alternative ocean regimes. The proposal was made to SCOR, the Scientific Committee on Oceanic Research (of ICSU), an international group of marine scientists that would be expected to be concerned about such a problem. SCOR accepted the proposal only in part and with some hesitation. The need for an objective evaluation of the question was clear. But some members believed that SCOR would become an adversary and by engaging in the controversy would weaken its scientific credibility. It was decided to restrict initial action to soliciting and compiling the views of individuals and national committees.

To initiate the inquiry, the following description of the issues was circulated:

> Ocean investigations, whether called exploration or research, are conducted for both fundamental and applied reasons. The increased knowledge of ocean phenomena and processes resulting from fundamental research has made possible important uses of the ocean and its resources.

Enhancement of these uses continues to depend on such research, not only in the case of extractive resources, but particularly in the cases of ocean forecasting and the control of pollution.

Important ocean phenomena do not, in general, correspond in location with delimitations drawn on political grounds. The control of ocean research, however, is affected by such limits. Coastal states control research in ocean regions under their jurisdiction. These regions have expanded through international agreement and are being further extended by unilateral action. Beyond the limits of national jurisdiction, ocean research is at present restricted only by other uses of the ocean. However, this region is the subject of continuing international discussions; any regime established for its governance may include conditions for the conduct of research.

Restrictions on ocean research are justified principally on the grounds that such research will give special advantages in the exploitation of resources. National security and protection of the environment are also invoked. Although controls are first directed to applied research on selected problems (such as fisheries) or regions (such as the seabed), they tend toward coverage of all of ocean research, presumably because of the potential application of such research to practical problems.

Consideration of the conditions for conduct of ocean research should include (1) evaluation of the justification for control, (2) examination of alternative ways to meet problems implied by the justifications, and (3) estimation of the cost of various restrictions, including their effect on the rate of acquiring scientific knowledge. With reference to (2), special consideration should be given to ways of assisting developing countries to make effective use of the results of ocean research.

Attempts to reduce complex issues to simple statements are often unsuccessful, and this was no exception. But by mid-June, formal replies had been submitted by six national committees, those of Australia, France, Federal Republic of Germany, United Kingdom, United States, and the Soviet Union. A dozen individual comments were also received, including those from scientists working in seven additional countries. Inadequate sampling, especially from developing countries, prevents any quantitative analysis of the replies. Yet many of the key issues have been illuminated and I will try to interpret these subjectively to illustrate better the nature of the problem.

The ideas can be summarized under the following questions : (1) What is scientific research? (2) What are its benefits? (3) Why does it need to be free? (4) Why and how is it being restricted? (5) What are the consequences of restriction? (6) How should it be protected?

WHAT IS SCIENTIFIC RESEARCH?

The need to distinguish "fundamental scientific research" from other kinds of research is largely tactical. Scientists recognize that such a distinction has little real meaning and is extremely difficult to make in practice. At the same time, they sense a practical need to dissociate science from its military or commercial applications. This may reflect a pessimistic view that some minimum of freedom will only be preserved for research that has no obvious or direct application.

Operationally effective definitions of this sort have been made more difficult by continuing misusage. For example, although exploration has always been a key element in scientific investigations, "exploration and exploitation" have been so inextricably intertwined by the sea lawyers that the utility of the word has been destroyed.

The special purpose definition required is to the effect that basic research is in the public interest and does not infringe on the security of other nations nor give an unfair advantage in the exploitation of resources. Possible test criteria are the unrestricted circulation of data, rapid and complete publication of results, and the participation of foreign scientists. Although such participation can be arranged in a variety of ways, it is most evident when the investigation is part of an international program, or at least is a "declared national program" (i.e., one where there is a commitment for international data exchange). To many, some sort of international cooperation and coordination is considered highly diagnostic. Presumably, this would include formal bilateral arrangements.

WHAT ARE ITS BENEFITS?

The list of benefits should not be restricted to practical applications. Inquiry into the nature and behavior of the ocean is a vital part of man's culture, and the pursuit of knowledge should be considered a fundamental right. As noted in the report of the Pacem in Maribus Colloquium, "Scientists have viewed the ocean as a scientific resource and its investigation as a means for the expansion of the human spirit. At the same time, they have recognized the contribution that scientific understanding can make to the improvement of human conditions."

The goal of using the ocean and its resources for the maximum benefit of mankind seems to be generally accepted. This involves attaining the maximum sustainable yield of living resources, exploiting subsurface minerals and petroleum at minimum cost, protecting the ocean environment from excessive effects of man's activities, forecasting of ocean and atmosphere conditions, etc. Achievement of these goals depends, to a greater or less extent, on the outcome of ocean research. However, a major educational task remains in demonstrating the relationship between ocean research and economic development of the various uses of the ocean.

Examples can be cited where exploitation has not derived from previous scientific investigations. The major contribution of research is to elucidate the origin of resources, the nature of their environmental depend-

ence and, in the case of living resources, the dynamics of their replacement. Here science makes the difference between exploitation, and responsible (and profitable) resource management. Science is a fundamental basis for rational use of the ocean.

In addition, scientific research is the key to the preservation of the marine environment. To determine the effects and fates of pollutants is a scientific problem, the solution of which is essential to rational control of man's intervention.

WHY DOES IT NEED TO BE FREE?

In some ways the need for freedom to conduct scientific research anywhere in the ocean is an article of faith among scientists, a basic assumption that they do not think to prove. The assumption stems from the unity of the ocean and the vast extent of the processes operating therein which have led to the unity and ocean-wide character of marine science.

Important ocean events do not, in general, correspond in location with delimitations drawn on political grounds. The fluid itself, and most marine organisms, are highly mobile and ignorant of such boundaries. The need for free research is particularly clear in this continuous and interconnecting system, and is most critical in the shallow regions where man's influence is greatest. But even on the relatively stationary sea floor, one must be able to examine the whole system, from ocean basin to continental shield, if understanding is to be adequate.

Marine scientists can only work effectively if they are free to follow their objects of study wherever they extend or move. To exclude investigations from some parts of the sea because of proximity to land is likely to render inquiry superficial and results less valid and useful. Freedom of scientific research is essential to promoting the exploration and exploitation of the natural resources of the sea.

Scientific organizations, such as SCOR, have a responsibility to develop the positive arguments in favor of preserving and upholding the concept of freedom of scientific research, including demonstration of the scientific reasons why different kinds of investigations require such freedom of access. An attractive, but perhaps unrealistic, alternative is to argue that freedom of scientific research as one of the traditional freedoms of the sea should not be restricted unless an adequate case for such restriction is made.

WHY AND HOW IS IT BEING RESTRICTED?

No justifications for control of research have been submitted other than those connected with resource exploitation, national security or protection of the environment. The fear that research itself will harm the ocean organisms or environment in any significant way is much exaggerated. Infringement of national security may be a factor in major power interactions or in some regions (for example, the Middle East), but does not appear to be the major consideration of coastal States in much of the developing world. States primarily wish to restrict research in order to protect information about offshore resources.

Restrictions on research appear to be most frequent in shallow seabed regions offshore from developing countries and in contiguous fishing zones. In such regions of limited national jurisdiction, the mildest (and most acceptable) restrictions take the form of the coastal State requiring advance notification, right of participation, and full access to results. The most satisfactory way for such restrictions to be accommodated appears to be through bilateral arrangements.

Beyond the limits of national jurisdiction, restrictions have been proposed, especially on the seabed, largely to protect the collective interests of the developing countries. No evidence has been presented of any positive benefits likely to result from such control, which would presumably be exercised by some international authority. The United Nations statement of principles referred to earlier implies that participation in international research programs would be a basis for gaining international approval. Such participation, if enforced, could constitute a significant restriction, especially if it entailed ponderous, complex, inflexible and time-consuming intergovernmental arrangements.

WHAT ARE THE CONSEQUENCES OF RESTRICTION?

The direct consequences of restrictions on the freedom to conduct scientific research are increased costs of doing such research, and delays or prevention of its accomplishment. The economic effects appear to be negative for all concerned.

Nations that cut themselves off from research reduce their participation in the benefits therefrom. At the same time, they are less able to protect themselves from technological advances achieved elsewhere. No nation is unaffected by what other nations do. Those demanding extensions of restrictions on exploitation may lose more than they gain by applying such restrictions to research. The restrictions tend to stifle research which depends on the ability to adapt quickly to changing conditions. Research is curtailed and the initiative is left to exploiters and others of limited interests. The protection of nature is better resolved by international cooperation in scientific research than by restrictions on the study of certain zones. Ultimately scientists will work where they can find suitable conditions, thus depriving other regions of the increased knowledge, and often of the educational opportunities that accompany participation in research programs.

HOW SHOULD IT BE PROTECTED?

Although one can speak of protecting the freedom of scientific research in the ocean, a more constructive approach is to facilitate the acquisition of knowledge and understanding of the ocean and its resources. This will include the development of effective international cooperation in research and the effective transfer of

scientific and technological information among all those concerned with the ocean. An essential consequence may be the transformation of the relevant institutions, one of several reasons why scientists must participate in the elaboration of future ocean regimes.

Restrictions on research result in part from lack of knowledge about the nature of scientific exploration and research. If scientific research is to serve the interests of all States in any direct and immediate way, there is a need to assure that these States have the capability to engage in the research and utilize its results themselves. Thus there must be increased and more effective efforts to assist the developing countries to acquire their own skills in marine science and resource development. The development of national programs to observe, document and publish data on sea areas under national jurisdiction would strengthen such skills and would benefit not only the coastal State but the community at large. To satisfy the apprehensions of the coastal States, we must convince them that free research does not impinge on their interests and that they have more to gain from such research than to lose.

Scientists must learn to make their findings promptly and fully available. Methods of data exchange must be perfected and instruction offered in their use. In a general sense, the making available of results cannot be distinguished from education and training.

CONCLUSION

This subjective interpretation of responses to the SCOR inquiry suggests to me some useful concepts and conditions on the freedom of scientific research that should be sought in the new law of the sea. Research of all kinds should be encouraged, with the greatest international support being given to that research whose results are made widely available and which can thus be considered in the best interests of mankind. International cooperation in ocean research should be strengthened in all its aspects. On the national, or even individual, level, one essential aspect of international cooperation is acceptance of the responsibility to conduct research in the best interests of mankind, including the promulgation of results in the most expeditious and effective manner. Institutions for international cooperation in ocean science should be strengthened and supported. These institutions should be so transformed that they have the mutual confidence of both scientists and governments, so that they can function as the agents of both in the acquisition and dissemination of scientific understanding of the ocean.

The restriction of scientific investigation serves no useful purpose unless the interests of States are protected thereby. It is important, therefore, to ensure that research does not endanger the interests of coastal States. These interests appear to be largely concerned with the economic potential of living and mineral resources. Then the important place to apply restrictions and controls is on the utilization of these resources, not on the research that makes it possible. Similarly, coastal States may have important concerns about their security or the condition of their environment. Then restrictions should apply directly to these matters. It is only through scientific research that we can learn to use effectively the ocean and its resources for the benefit of mankind. Therefore we must find ways to promote such research, not to cripple it.

Remarks: Iguchi

Takeo Iguchi, First Secretary, Mission of Japan to the United Nations

(Rapporteur, Sub-Committee on Pollution and Scientific Research, UN Seabeds Committee)

Wednesday morning, June 23

I would like to ask for your indulgence in trying to give a brief outline of several different movements within the United Nations General Assembly on marine pollution, and also I would like to point out that there is currently an effort to coordinate and have good cooperative relations between various organizations concerning this important problem of protection of the marine environment through international efforts.

I attended the Working Group on Marine Pollution conducted under the auspices of the Conference on Human Environment which was held at IMCO (Intergovernmental Maritime Consultative Organization) in London last week. There were representatives from UNESCO, IOC, WMO, and a number of other organs within the United Nations family. This matter of marine pollution does require a closer collaboration between the various organizations. In the United Nations itself, there have been two approaches. One is made from the First Committee which is primarily concerned with political affairs; the Seabed Committee is formed under this First Committee. Also there is the Economic and Social Council which has dealt with the human environment; and in the resolutions adopted in this 24th General Assembly, Resolution 2566 has requested the Secretary General to seek the views of the members of the United Nations whether it would be appropriate and necessary to come to an international convention for the prevention of marine pollution in connection with the human environment conference to be held in Stockholm next year.

Therefore, within the General Assembly there have been two relevant resolutions mainly connected with the protection of the marine environment. If you start

to study the work of the United Nations with particular reference to the law of the sea, it is very important to understand the pertinent resolutions and also the activity of various specialized agencies and organizations concerned with the marine environment. In point of fact, I think there is a trend worldwide for an agency for environmental affairs to be created within government to coordinate the work of the various ministries.

In Japan, we have established an agency for environmental affairs. From the first of July, it will have its official function. Some time ago an idea was floated that in the United Nations there should also be a specialized agency for environmental affairs. I do not think this is at present being seriously studied, but nonetheless the protection of the environment requires such a comprehensive study and effort that it is not easy to have any simple approach to this matter; and that is precisely the difficulty that the Third Sub-Committee which is entrusted with the work of the protection of the marine environment is facing. This is because it has to work in close relationship with the human environment conference and, perhaps, the work of IMCO. Since the Third Sub-Committee has not yet gone into the substance of the discussion on marine pollution, I would refrain from making comments which would prejudice what will be discussed in its meetings. But I would like to point out that the chairman of the Third Sub-Committee, who is a distinguished representative of Belgium, stated in his comment at the preparatory conference held in Geneva last March, that the terms of reference concerning the protection of the marine environment were still to be clarified.

With regard to the sources of pollution, we must clarify whether our concern should be restricted to the results and consequences of exploitation and exploration of the seabed, or whether the pollutants coming from land or internal waters be also included. Consideration must be given to the question whether the international machinery to be established for the exploration of the seabed should cover also the protection of the marine environment in the superjacent waters of the international seabed. All these controversial matters have to be discussed in Geneva, and I do not think there has been any consensus on how we should approach this matter. There is only a guideline in the General Assembly resolution adopted last year, which states as follows:

> With respect to activities in the area and acting in conformity with the international regime to be established, States shall take appropriate measures for and shall cooperate in the adoption and implementation of international rules, standards, and procedures for, *inter alia*: (a) prevention of pollution and contamination, and other hazards to the marine environment, including the coastline, and of interference with the ecological balance of the marine environment; (b) protection and conservation of the natural resources of the area and prevention of damage to the flora and fauna of the marine environment.

Within this general guideline given by the resolution of the United Nations, the work of Sub-Committee III will proceed in the coming months of July and August.

In addition to this brief background explanation, I would like to refer also to the Secretary General's report made to the Economic and Social Council recently, which points out in a very brief way various approaches to the prevention and control of marine pollution. He has summarized the replies of various member States in response to the questionnaire circulated by the Secretariat on the necessities of having certain international conventions for the protection of the marine environment and the prevention and control of marine pollution. In Paragraph 24, he states as follows:

> Concern among some member States is reflected in replies to a note-verbale of the Secretary-General on the matter of having an international treaty or treaties for the prevention and control of marine pollution. Responses from forty-four States suggested that pollution presents an increasing danger to the marine environment and that steps should be taken at the intergovernmental level towards its prevention and control. Concern was indicated as to the adequacy of existing international instruments and many governments thought that there should be stronger support for existing conventions and that a further international treaty or treaties should be concluded. Some governments preferred the preparation of a single global treaty applying to all forms of marine pollution. Some replies expressed doubt about the feasibility of such a treaty, bearing in mind the multiplicity of activities that can give rise to pollution, and again others expressed a preference for regional approach.

This shows that there are a number of approaches which have been considered by the member States and we will see in the future what will be the outcome of the harmonization of these different approaches. I should perhaps be allowed to clarify what would be the approach of the Japanese government on this matter.

I think the seas around my country, including the huge Pacific Ocean, are not so polluted as the seas around western Europe where there is more industrialization of the region as a whole and more closed seas surrounding that area. However, we have stated that we would support international measures on this matter. We have said that it is essential that pollution in the marine environment be prevented and controlled by effective and appropriate international measures. We have taken the view that, "as for the prevention of pollution arising from the exploitation of mineral resources, the establishment of the regime on seabed resources beyond the limits of national jurisdiction is presently under consideration by the United Nations Sea-Bed Committee. It is, therefore, deemed appropriate to study this subject in connection with the work of said Committee."

Secondly, we have taken the view that

> With respect to the prevention of pollution caused by the disposal in the sea of industrial and other wastes, a single international convention could hardly be expected to cover all kinds of pollutants and moreover the preparation of such a convention will require a relatively long time. Accordingly, it is considered most effective and feasible that only such pollutants over which agreement is reached by the countries concerned for international regulation be included, one after another, in the convention. What particular pollutant is to be considered for international regulation for the purpose of the prevention of marine pollution should be determined by the proposals of the countries concerned or determined on the basis of the results of examinations of expert meetings held by the international organizations.
>
> A treaty of regional character may be realized itself only if its necessity is proved scientifically and approved internationally.

And we are even willing to cooperate for a regional arrangement if certain guidelines are given in an international convention. I have pointed out the still unregulated state of approaches made for the protection of the marine environment, and because of this, I would say great attention was paid to the working group meeting in London last week by the governments and organizations concerned with the marine environment.

I would now like to make a few comments on this working group for the interest of the participants in this Law of the Sea Institute. First, I think that the working group meeting in London was to study more of the regional approach or the regional arrangement for the prevention and control of marine pollution. I think there was a feeling before the working group meeting that there was an urgent necessity to have a regional arrangement where the contamination of the seas is very serious, particularly the enclosed seas in certain areas of the world. I think particularly in Europe there is a necessity for the conclusion of regional treaties, and the working group was to discuss various regional approaches in detail.

However, what I have witnessed in London was a feeling that although a regional approach is important, it must be combined with a global approach. A global international convention on the prevention and control of marine pollution is also of great necessity and has to be studied at an early stage, and the emphasis of the working group was equally laid on the global and international approach. This might, in a way, indicate that a unilateral declaration of the zone of protection against marine pollution was not favored at all.

There was an idea that the conclusion of an international convention would help the creation of regional arrangements and also help reconcile diverse interests of the member States of the United Nations. There was a proposal submitted by the United States on the regulation of ocean dumping. I am quite sure that some of the people here have been consulted on the preparation of this proposal; I was briefed on it for the first time in the working group. Indeed, the United States has taken a forward step in proposing international regulation of ocean dumping, and the working group has agreed that this must be studied with great care. There is even a possibility of adopting this convention in the Stockholm Conference of 1972. There were a number of reservations and comments expressed by the representatives in the working group, for instance from the United Kingdom and from our government; but I think there was a kind of mood of the majority that this convention would be adopted in Stockholm next year.

On the other hand, however, it is recognized that there must be a closer coordination of work between the Stockholm Conference and the Seabed Committee, particularly the Third Sub-Committee. Also it was pointed out that a close working relationship with the IMCO organization is very important.

The international control and regulation of the marine environment, in particular the control of ocean dumping, raises a number of problems which I would like to point out here. I will throw in my purely personal thoughts without in any way prejudging the position of my government.

I feel that if we embark upon the regulation of ocean dumping with a view to protecting the marine environment, the legal consequences are quite far-reaching, and the implications must be studied with great care.

First of all, I think the importance of the regional approach or regional arrangement stressed for the protection of the marine environment was based on the view that there were geological, industrial or other factors which must be considered, and that each region had its peculiarities and particular characteristics. Therefore, the control of pollution in the sea has to be combined with the control of pollution on the land; this is the reason for the necessity of having a regional arrangement. However, a global approach might affect this close interrelationship between the land and the sea in a particular region.

A second point is, I think, that an international agreement would prevent the future unilateral declaration of pollution zones by national governments in extending their functional jurisdiction over the high seas. This is an approach which a number of countries, including my own, have objected to; and I think a global convention, if properly formulated, would have a desirable effect on preventing unilateral declarations of this kind.

Third, the protection of marine environment has a vital connection with the conservation of fisheries, and there have been a number of countries which thought the fisheries should be dealt with from the standpoint of allocation of fishery resources. We believe that a regional approach is most useful for the allocation and conservation of fisheries, and that marine pollution would naturally be connected with the conservation of fishery resources. I think that inter-

national agreement on the marine environment has to be studied in close relationship with fishery agreements, in particular regional fisheries agreements.

I think a global regulation on marine pollution, if it goes into legal detail, might blur the boundary between high seas and the territorial sea, and between the international seabed and the continental shelf. Of course, a number of governments would still press strongly for a clear distinction between the high seas and the territorial sea, and this is really necessary from the law-of-the-sea point of view. But for the effective protection of the marine environment, legal limits may not be of much significance. If this new concept of environment will be given precedence over the other legal concepts, as is likely to happen in the human environment conference next year in Stockholm, this would have certain blurring effects on the legal notion established by the law of the sea whereby up to now there has been a clear distinction between the territorial sea and the high seas. Marine pollution might also have certain effects on the notion of the contiguous zone.

Another implication might be that the machinery for the development and exploration of the seabed will appear to be insufficient if given only the coordinating power for seabed exploitation. Some may wish to have these powers enlarged to cover the protection of the marine environment as a whole. Whether such an expansion of the regulatory power to the superjacent waters by international machinery is a wise move has to be studied with great care; but I think this kind of development of the power of international machinery might be pressed by some quarters.

Also, I think if you would like to have strong regulation and control of marine pollution in the future, a study must be made of the problem of liability for marine pollution. Whether such liability will be considered within the framework of already-established organizations and their conventions, like IMCO, or within the context of new international conferences on such subjects as human environment or the law of the sea, is open to question.

All of these problems raised are open to various possibilities; and the more I study this complicated problem of the marine environment, the more I am convinced that the legal implications and legal consequences of the traditional concepts and traditional agreements are bound to be quite far-reaching.

Shipping and Other Commercial Interests to Be Negotiated

William J. Coffey, American Institute of Merchant Shipping

Wednesday morning, June 23

I am an attorney on the staff of the American Institute of Merchant Shipping, commonly referred to as AIMS. AIMS is a trade association comprised of 35 companies owning about 60 percent, by number, of the merchant ships flying the United States flag, and a somewhat greater percentage of the total tonnage and capital investment in new merchant ships.

The major interests of AIMS and its member companies are related to this nation's foreign commerce. Almost all of our ships are in the foreign trades, and so our concern with a Convention on the Law of the Sea is clearly more than academic. This morning I will review several items of concern to AIMS and its member companies which are related to the topic of this Conference.

What is the ship operator interested in today? In two words, making money! There was a time when he may have been entranced with the romance of the seas to a great degree, but few companies today are family enterprises that reflect not only successful fortunes but also the glamour of free competition on the high seas for the wealth of the Indies. Most shipping lines are parts of conglomerate corporations, and the role of the steamship company is reflected in the financial statement in black or red. Too often these days it is red.

With that thought in mind, what are the major international items of concern to the American merchant marine today? First, many of you are aware that during the last session of Congress a major piece of maritime legislation, the Merchant Marine Act of 1970, was enacted into law. This is the first substantive updating of the law since 1936, and it envisions the construction of 300 new ships of all types (or their equivalents in terms of capacity) within the next ten years.

Only a relatively small number of these ships will ever be built unless our merchant marine is able to capture a greater percentage of our nation's foreign commerce. Today, in terms of volume, we carry a mere five percent. In terms of value, the percentage is somewhat higher (about 12 percent), but this is still far too little.

There is a growing trend in the world today, particularly in the lesser developed nations, to adopt a policy of bilateralism. In very general terms, bilateralism means an agreement between two countries under which their respective merchant fleets are guaranteed a given percentage of the trade moving between them, with but a small remainder left for the merchant flags of third flag nations. Bilateralism is clearly a restriction to traditional concepts of free trade, and is in many ways an expression of the growing nationalism of the emerging nations. To a considerable degree, this same spirit of nationalism is leading to the promulgation of 200-mile limit statutes.

The American merchant marine operates almost exclusively between the United States and foreign na-

tions, with but a small percentage of its carriage involved in the trades between one foreign nation and another. Thus, bilateralism could greatly benefit our industry, at least in many areas of the world. However, it is a source of considerable concern to this traditional maritime nation.

A second item of great interest to our industry today is the prevention of marine pollution, and this too is related to the subject matter of this conference. The prevention of marine pollution has been recognized as an international problem since the 1920's. In 1926, an international Convention was adopted which prohibited the intentional discharge of oily wastes into a nation's territorial waters. By the 1950's, this standard had proven to be inadequate, so a new Convention was adopted in 1954 establishing a minimum no-discharge zone of 50 miles. A diplomatic conference held in Brussels in 1969 drafted amendments to the 1954 Convention that established for the first time certain uniform anti-pollution standards for waters outside the 50-mile limits, allowing a discharge of 60 liters of oil per mile on the high seas.

Although the 1969 Amendments have not yet been ratified, the United States has recently taken the lead in proposing a total prohibition of intentional oil discharges anywhere in the world not later than 1980. This proposal has since been adopted as a formal resolution by the North Atlantic Treaty Organization (NATO), and is being considered by the Intergovernmental Maritime Consultative Organization (IMCO), as mentioned a few moments ago by Dr. Iguchi.

The American merchant marine, like most industries, is a polluter, and recognizes that pollution must be stopped. We at AIMS are working closely with the several federal departments and agencies concerned to develop the steps necessary to implement the NATO "no discharge" resolution, even though it has not yet been adopted by IMCO. The maritime industry, I can categorically state, is prepared to accept and implement stringent but uniform international standards designed to prevent harmful discharges of pollutants into the seas of the world. Unfortunately, today there is a very counter-productive trend which is becoming a matter of great concern to our industry.

A number of nations—and in particular the United States and a growing grouping of our tidewater states —have begun to enact their own pollution prevention statutes. While most of these have been proposed and adopted by legislators having the best of intentions, the statutes are all too often hurriedly drafted, and differ one from another in terms of liability for spills, certification and financial responsibility requirements, and actual shipboard operational requirements.

It is extremely difficult for a steamship operator whose ships call at ports in many different nations and states to comply with a whole host of regulations; and where there is compliance, it will often be attained only at a far higher cost—ultimately paid by the consumer—than might be the cost of complying with an equally tough but uniform international standard. This is a growing and vexing problem for our industry today, and I suggest to you that some of the motivation for each nation to adopt its own standard is analogous to the motivation for adopting its own law of the sea.

A third item of concern to the maritime industry today is the very broad and terribly unglamorous subject of international documentation requirements. Documentation in international trade circles is a very broad term, encompassing tariff filing requirements, commercial paper formats, trade facilitating, customs matters, and a host of other items.

From the times of the Phoenicians and other early traders, it was an accepted fact of life that goods transported via ocean carrier were moved slowly. If they missed a sailing waiting to be processed, or if they sat in a warehouse for a few days here and there until the paperwork caught up with the commodity, it really did not make too much difference since the consignee would not have expected them to arrive on time in the first place.

Much of this conditioned reflex thinking—the easy acceptance of a long-standing problem—went right out the window with the development of the containership during the 1960's. The consignor has become used to rapid delivery, and makes his terms accordingly. The consignee in Brussels expects delivery from Chicago in 10 days or less, and has an inventory level to match. The steamship company is arranging transportation now from door to door, not just picking up goods that mysteriously arrive at one pier and delivering them to another from which they mysteriously disappear. The insurer of the cargo is seeking a more simplified liability structure. The banker who finances the transaction wants the paper expeditiously processed, and in fact wants to actually do away with the paper if at all possible.

Despite these expectations and desires, the technology of our modern ships has to some extent leapt ahead of the human realities involved. Containers moved by express train from Chicago to New York in a matter of hours may well sit for days waiting for the paperwork prepared by a Dickensonian character wearing a green eyeshade to catch up with it. There is still no system of through responsibility and through liability on international shipments today. Goods must still await customs clearance, resulting all too often in pilferage. Bills of lading, certificates of delivery and letters of credit are still drafted on a thousand different formats and clutter the banking system.

I could devote the remainder of this morning to these documentation problems, but from what I have already said it seems quite evident that a problem does exist. It is a problem which must be solved on an international scale, not through unilateral actions taken by one or many countries. One attempt to solve a large part of the documentation dilemma is the draft Convention on the International Combined Transport of Goods, commonly referred to as the TCM Conven-

tion. TCM came to life about 12 years ago, but remained essentially in private legal channels until last November when it was first considered by IMCO. Since then, it has been extensively reviewed by all of the world's maritime nations, and by this November a totally new "final" draft will again be circulated.

At this point, it seems increasingly unlikely that TCM *per se* will be adopted and ratified on a worldwide basis, primarily because of the opposition to it from many lesser developed nations. However, several of the TCM Convention's basic concepts seem likely to be adopted in some format or another in the near future.

TCM creates a new category of transportation arranger, the Combined Transport Operator, and makes him a through liability assumer. With some modifications to the present draft, the CTO could well become a shipment guarantor or issuer of an insured bill of lading. He would issue, perhaps electronically, a Combined Transport Document, one piece of paper, to the shipper. He would stand in the shoes of the shipper vis-a-vis all actual carriers, thus simplifying the legal relationships between the parties.

The TCM Convention as it is presently drafted is not acceptable to much of the shipping community in this country, but with certain changes it could be a most valuable step forward. Our industry is working closely with the government in developing changes to the current draft that will make it more worthwhile. But putting all of the particulars aside for a moment, the fact that many nations are giving this matter a great deal of consideration right now is a most salutary development, since it evidences a growing international recognition that current documentation requirements in the broad sense are simply not compatible with today's transportation concepts.

The fourth major item of concern to our industry today could be termed the new steamship technology. A genuine revolution began with the introduction of the containership during the 1960's, a revolution that in my view is as significant as the changeover from sail to steam propulsion over 100 years ago. The first generation of containership construction and operation has already come to an end, as the new super-container vessels now coming down the ways bear relatively little resemblance to the earlier models which were for the most part converted World War II vintage ships. The new ships will be capable of up to 35 knots compared with the former standard of 16, and will carry several thousand containers as opposed to today's 750-1000.

An offshoot of the containership revolution is the barge carrying vessel, known as the LASH or the SEABEE ship. Several of these are already in operation between the East and Gulf coasts and Europe, with a considerable number in the planning or building stages around the country.

The concept of the barge carrying ship is really quite simple. The giant-sized mother ship steams back and forth, for example between New York and Bremerhaven. However, as the ship nears New York, she begins to discharge barges that are destined for Baltimore, Boston and even inland water ports like Cleveland and Albany. As the tugs tow these barges away, other European-bound barges arrive, are loaded aboard the mother-ship and off she sails with barges for perhaps 6 or more countries abroad.

A third type of new ship which I shall briefly mention is the super-tanker. At the close of World War II, the typical petroleum carrying vessel displaced about 16,500 tons, with a few going as high as 21,000. This figure began to creep upward during the early 1950's, but the continuing political problems in the Middle East, combining with the world's seemingly insatiable thirst for oil, led to the development first of the 100,000 plus ton tanker by 1960 and the 300,000 plus tonner of 1970. There is no reason to believe that this geometric size expansion will not continue at least into the vicinity of a one million ton tanker.

Super-containerships, barge carrying ships and supertankers have a number of common characteristics that relate to our topic here today. They are incredibly expensive to build, equip and operate; but given the proper conditions, they can be extremely economical and efficient. Some of these conditions are beyond the scope of this conference—proper labor-management relationships is one that comes most immediately to mind—and so I shall pass over them.

Clearly, however, these ships must be able to move rapidly from point to point, picking up and delivering cargo. They can no more be kept idly swinging at anchor than can a Pan American 747 aircraft be kept sitting empty on the ground. The need to continually produce revenue is too great.

If individual nations impose widely varying requirements on these ships they simply will not be able to operate in an effective manner. And because they are so capital intensive, this in effect means they will not be able to operate at all. These ships cannot afford 200-mile detours, merely to adhere to an expression of nationalism drawn in the ocean. They cannot afford to sit idly by awaiting cargo that has been held up because of an individual nation's peculiar documentation and clearance requirements. They cannot reasonably be fitted with 5 or 10 different ballast water and sewage disposal devices which may be required to meet varying and changing national standards. They cannot be denied an opportunity to compete for cargo, merely because a nation chooses to have covert cargo preference laws and practices.

The proposed Conference on the Law of the Sea has a definite relationship to each of the concerns I have outlined, and so will be followed with considerable interest by the international maritime community. It could well be that the demands of world commerce will be so great—if not in 1973, then at least in the near future—that general agreement on a Convention can be reached.

Perhaps there is a lesson to be taken from history here. During the time between the American Revolution and the ratification of our Constitution, this country was governed by the terms of the Articles of Confederation. The Articles were little more than general precepts, however, as each of the newly independent states was very determined to assert and preserve its own sovereignty.

By 1785, most of the states had their own duties to be collected, militia were stationed at state lines, and it was said to be far easier to ship goods between one state and a distant foreign nation than between two adjoining states.

Soon, the manufacturers in New England, the financiers in New York, the farmers of the mid-Atlantic and the great plantation owners of the South joined in to demand changes that would facilitate trade between each of the states. This increasing demand was one of the most important factors in the replacement of the Articles of Confederation with our federalist Constitution, a key provision of which is the interstate commerce clause. The one-world movement is not strong enough today to tear down nationalistic restraints, but the demands of commerce may just be strong enough to keep such restraints under control.

International commerce needs international standards in order to prosper in today's highly competitive environment. In a sense, the actual requirements or standards themselves are of secondary importance. Their universal applicability is paramount for competitive reasons, so that each company is playing off of the same sheet of music.

This summer Conference of the Law of the Sea Institute is performing a most valuable service not only to our nation but also to the commercial community, of which the American merchant marine represents an important part, in bringing many of the factors bearing on the overall problem to the surface. Speaking on behalf of the American Institute of Merchant Shipping and its member companies, I wish to express our appreciation for the work you have undertaken and also for inviting us to participate here with you. I can assure you that our industry will be following developments leading to the 1973 Conference with great interest.

Discussion

Wednesday morning, June 23

Flouret: I should like to comment first on the remarks made this morning by a speaker who feared that extended national claims might lead scientists to renounce research in coastal areas. Allow me to emphasize in this connection that the developing countries do not intend to restrict research but rather to bring about a change of attitude in the countries that carry on research in the sea.

This change of attitude should imply the recognition of preferential interests and rights of the coastal States to explore the surrounding seas and, consequently, their participation in the planning and development of the envisaged research as well as their access to samples, results, data, etc. Indeed, IOC Resolution VI-13 regards the interests of scientists and those of the coastal States as being complementary.

Concerning Professor Wooster's remarks about the implementation of Resolution VI-13, I should like to point out that it was adopted towards the end of 1969 and communicated to the member States of the IOC towards the end of 1970. Its real implementation only started a few months ago and, as far as we know, has been considered satisfactory by all parties concerned. If Professor Wooster does not think so, can he mention a single concrete case to the contrary? I remember that at the meeting of the IOC Consultative Council held in March of this year, he requested from the IOC Secretariat some information about that resolution and was told that its implementation had only started recently and that so far no difficulties had been recorded. Has he gathered new facts since then in support of his statement?

As for the main issues involved in scientific research of the oceans, the main one is perhaps the first one to which Professor Wooster alluded, the definition of the contents of such scientific research. This problem has been one of the main concerns of the IOC and some members have asked for a clear definition establishing a distinction between scientific research and exploration of the sea. So far discussions have led to the same conclusion, namely that it is impossible to formulate such a definition since the two activities are so closely related that in practice no scientific research is carried without some "fall-out."

Professor Wooster confirms it now while adding that "scientists recognize that such a distinction has little real meaning and is extremely difficult to make in practice."

However little importance scientists may attach to that distinction, we can understand the opposition of some coastal States to the principle of freedom of scientific research in the areas of the sea under their jurisdiction, considering that it implies inevitably freedom of exploration in those areas.

Wooster: I can try to answer these questions. With regard to the first one, it is certainly true that it is difficult to generalize about the aims of the developing countries. I know it is not the aim of many developing countries to stifle scientific research. I know that, for example, in Argentina there is an active development of marine research programs. The effect

of the actions of many of the LDC's, however, is to inhibit scientific research. There is no question but that this problem is increasing so that whether or not it was the aim of the developing countries, or of some developing countries, to inhibit science, this is the effect. What I hoped to develop in my paper was that we have to find ways to achieve the aims of the developing countries without, as someone put it, "killing the goose that lays the golden egg."

With regard to IOC Resolution VI-13, what I said was that I know of no example of its operating successfully. That is, I am not personally aware of examples where it has made possible research that would not have in any case been permitted. If, for example, the United States applied to work off the coast of Great Britain and used the IOC mechanism, I assume that this in any case would have been possible to arrange. Perhaps I expressed an undue pessimism, but it is my feeling that this resolution has not helped solve problems which were otherwise unsolvable. I might be wrong on that.

Certainly, with regard to the third question, there are difficulties in defining *pure* scientific research. I have noticed in the last two days that lawyers and economists seem to be most fascinated by this question of definition. We scientists look pretty shabby in contrast because we feel there is no real way to distinguish between pure and applied scientific research. The scientist is in a dilemma; he has to prove that his research is useful in order to get funding, but at the same time must show that it is not useful to be permitted to do it.

I personally think we get nowhere trying to find a precise definition of scientific research. I know that your understanding of the word "exploration" is completely different from mine. What we have to do is set up new terms. I suggest one, "open research," not a very good one, but we might call it "activity A," and we will define "activity A" with some very precise criteria; and then we will not ruin these other words that already have definitions in the language.

Your last question is one that I personally have wrestled with for ten years, that of oceanographic training and education in developing countries. I have watched the attempts in the Intergovernmental Oceanographic Commission and UNESCO to deal with this question. You have to remember that whatever priority is given in the IOC, it is the specialized agency, in this case UNESCO, that has the money for training and education.

Of course, ultimately it is the nations that have the means, and the nations dole out their money to the specialized agencies. The IOC, since it has no financial resources of its own, has not been successful in meeting this problem, in part because nobody has really put forth any good new ideas. There are too many empty words used on this problem. How do we find the resources to make a real impact? I tried in my paper to suggest that this is very closely related to the problem of freedom of scientific research. As you pointed out, these are really the two sides of the problem, the freedom and the obligations that go with the freedoms.

Gaudin: We have had at least two talks by people who qualify as engineers. I have in mind the paper by Dr. Wooster, which I find particularly useful; and I have reference further to the paper by Mr. Coffey on the problems of the future in connection with the marine shipping industry.

I think Professor Adelman was quoted this morning to the effect that the cost of production of oil is only one-sixteenth of the sale value of the oil. If you think that the costs of pumping oil from the well to the point where you transfer it into a freight car or pipeline is the whole cost of production of oil, maybe you come to a figure as preposterous as one-sixteenth, but that is not the whole cost by any means. There is a great deal more to oil costs than that, and I wanted to call attention to this somewhat partial presentation, even though it is by my colleague.

I would like to correct this very partial point of view so as to gain a more balanced approach. I think that if you were to read some of the balance sheets of the international oil companies, you would find that the cost of production of the oil, including all the expenses to which the companies are put, is more like fifteen-sixteenths rather than one-sixteenth of the sale price.

Beesley: My name is Beesley. I am from Canada. I wanted to say one thing further about scientific research. I think that the discussion this morning reveals the difficulties rather more than it reveals the possibilities for a solution. We in Canada also are concerned about this problem but I am afraid our own deliberations have not as yet gone very much beyond the suggstions made by Mr. Wooster. It seems to us that the general principles are—I was going to say freedom of access to areas in terms of freedom of access to the information. This ought to be the answer. How to apply such a principle is not so simple. The kind of difficulty it raises applies also to outer space technology, where there is such a tremendous disproportion in real terms between theoretical equality of access on the one side by developed countries and by developing countries on the other. All that can be said is that outer space is one of the precedents for the Third Law of the Sea Conference and the sooner the preparatory committee gets down to that kind of issue the better. We can spend a lot of time trying to thrash out general principles, and even that has not yet been done, but obviously we have to systematize our approach to freedom of access to results of scientific research.

I have to say that while it seems unfortunate that some coastal States are jealous of their prerogatives, perhaps there is good reason for this. On the other hand, I think we all recognize the benefits for all in freedom of scientific research. Clearly no one is going to come up with a magic solution. One question is

how to define pure and applied scientific research; another is how to make the results generally available. Obviously this is one of the key issues we are faced with and it has not been given enough consideration in our opinion.

Since this time a year ago, I think more attention has been given to the pollution problem. We would, however, like to see a little more attention given to practical approaches to the problem. I will outline, if I may, the way we see things on a multilateral basis. I hope no one here is surprised to find us talking about the multilateral approach but we are very active on the multilateral plane. Our view is, as has been suggested by some of the speakers this morning, that a global approach must be taken laying down certain minimum standards coupled, perhaps, with regional approaches laying down special, and perhaps stricter standards.

We think the first step is a global convention. We think, however, that at the same time there will have to be special regional standards; so there may or may not be two sets of conventions. There probably will have to be two types of standards, some universal and some regional. There has to be some flexibility built into the manner in which standards are elaborated so we do not have to amend the treaty every time we learn something new on the problem of pollution.

For example, the Arctic lends itself to the regional approach but there must also be a global one.

Our feeling is that unless you want to create some super agency that has the powers of the Security Council, we are going to have to let the coastal States do the policing on pollution control. It doesn't mean that we have to wait until everyone has followed our lead. I think we can shortcut the procedure by agreeing in a convention on a "trusteeship approach," although we prefer the notion of delegation of responsibility. The coastal States can by this means take the position that they are acting as of right, while flag States can take the position that they are delegating to the coastal States certain defined powers. The approach would be multilateral and would be embodied in a convention. This is in essence our approach.

One of the advantages of taking national action is that one finds oneself in the middle of the problem with a pretty clear idea of its parameter, both as one sees it nationally and as regards the possibility of accommodations between nations. We consider that Stockholm can provide a means for a part of the solution to this whole problem. We think that at Stockholm we must get at least a declaration of legal principles. We don't want an interpretative statement, we don't need a mixed bag of legal and non-legal principles, or watered down principles, defining concepts concerning cultural values. We are talking about legal principles, something similar to what occurred in the case of outer space. We think that if we can obtain such a declaration of real legal principles, then we have got a very good starting point. The scope of the principles must be broad, covering the whole of the environment and not merely the marine environment, but they have to have particular application to the marine environment. We have a Working Group in the United Nations and it isn't finished yet. The principles are being discussed and we are gradually making headway.

We think that the proposed IMCO conference is the place to translate the principles into technical rules because IMCO has the technical expertise and the specialized knowledge. The IMCO conference should therefore follow the Stockholm conference by a decent period to enable people to ensure the application in IMCO of the Stockholm principles.

As to the role of the Third Law of the Sea Conference so far there has been relatively little attention paid to that particular sub-committee which we consider to be one of the most important. To put it very simply, the reason is there is no question which raises all the contentious law of the sea issues to the extent that pollution control does.

If a State declares a certain passage internal waters a territorial sea thus may have an effect on military uses. Even a 200-mile territorial sea may have no effect on commerce whatsoever because of the concept of innocent passage. Fisheries jurisdiction affects only fishery activities. In the case of pollution, however, if we really guard against pollution one has to take into account all functions and uses of the sea, and therefore pollution is the problem raising the most direct and concrete clash of interests between coastal States and major maritime "flag States" powers.

We think that, provided we can get a decent declaration of principles out of Stockholm, we can proceed to translate it into a convention at the Third Law of the Sea Conference. Even then we know it is going to be difficult because of the inter-relationships of issues. So long as we can come out of the Third Law of the Sea Conference with a basic convention, the pollution problem may still require further regulation but we will have a good start. If this does not happen then obviously many more countries will act as the United Kingdom has done.

Gaudin: I belive Dr. Wooster said that much of the usefulness of the concept of exploration and exploitation has been destroyed at the hands of the lawyers. I would like to disagree with his view. I think the questions asked about the meaning and scope of interrelation of these concepts are very viable and necessary if we are to succeed.

Wooster: I can only reply that I do not think the word "exploitation" has suffered much damage at the hands of the lawyers, but I think the word "exploration" has become a new word, a bit like the juridicial continental shelf, that does not resemble the one that I have known.

Research Needs on Ocean Issues: Part One

Francis T. Christy, Jr., Resources for the Future, Inc.

Wednesday afternoon, June 23

Our objectives over the next several minutes are to explore some of the ways in which the decision-making processes might be improved and to ask for your cooperation on the use of one specific technique.

First, we assume that it is possible to improve decision-making. This is not an easy assumption to hold at times, but one that I must hold.

Second, we assume that one of the major means for improving the decision-making process is by encouraging and facilitating full, free, and honest discussion of all responsible interests and points of view. This assumption underlies the creation of the Law of the Sea Institute and is a major motivation for the convening of our six annual summer conferences. While we cannot vouch for the merit or validity of the presentations, you can be assured that we have made every effort to bring in all points of view including, of course, those with which we, as individuals, may disagree.

Our third assumption is that successful decisions are ultimately and fundamentally dependent upon the *maximum, public* availability of information. The necessity—the vital necessity—for full public information on governmental policy formulation has been widely discussed in the past ten days with regard to the Viet Nam papers in the *New York Times*. It is not necessary to repeat the arguments in favor of the freedom of the press. But it is timely and in order to discuss the critical need for information on governmental policy-making on ocean issues, and to point out some of the harm that is occurring because of our government's demands for secrecy and because of its difficulties of opening up the process of policy formulation. I do so as an individual concerned about ocean matters, and not as a spokesman for any of the organizations with which I am affiliated.

Within the United States, information on the government's position and interests in ocean matters is severely and critically restricted. I will cite a few instances and then discuss some kinds of consequential injury. Prior to the May 23 presidential announcement, our government was considering four major alternative proposals for the seabed. While the general nature of these proposals—at least of three of them—could be perceived by the public, this was not due to our government's openness. The specific details of the alternatives were never presented to the public, not even in response to repeated requests from Congress. After May 23, representatives of some selected interest groups were permitted to see some of the drafts. Just prior to August 3, when the final version surfaced in Geneva, some congressmen were granted similar opportunities. But as for the public as a whole, there was no information on alternatives, on objectives, on concepts, and on facts.

It is now generally known that our government's Draft was formulated primarily to meet United States security interests. But the nature of these interests is still obscure. It is interesting to note that it took an amateur — self-called — from outside government—John Knauss, and an organization in Stockholm, Sweden to provide the best public analyses of U.S. security interests in the ocean.

It has been an "open secret" that our government has been trying to work out a draft treaty containing an "Article 3" covering fisheries. The contents of this Article 3 have apparently gone through several revisions—but as far as the general public is concerned nothing is known whatsoever about any of the versions. It is to be assumed that our government is now considering alternatives for a draft fisheries convention. And yet, our government's officials—our public servants—are either unable or unwilling to discuss these alternatives publicly. Other examples could be cited, but it is more important to point out the damages that occur because of this excessive demand for secrecy.

There is significant harm to society when the interested public is not permitted to participate in the formulation of policy. Some of these damages to society are now being discussed in the press and in the courts. But in addition to society, the policy-making process itself is also damaged, and this is becoming evident in our government's position on ocean issues.

One kind of harm occurs because secrecy excludes talent and knowledge. Policies are formulated and decisions are made on the basis of the talent and knowledge of those who are privy to the process; not on the basis of all such resources that could be made available. This sets a constraint to the process and reduces the viability of the product.

The U.S. Draft Convention, for example, is a really outstanding document when it is considered that it was worked out by five men over a few months. It is a superb job—given the constraints of secrecy and lack of public debate. But the constraints were neither necessary nor desirable, and the product, as a result, is of questionable durability. If industry had been brought into the process, some of the problems—the bona fide problems — pointed out by the National Petroleum Council in its supplementary Report, could have been avoided.

For fisheries, the problems are far more complicated and the necessity for an open process is much, much greater. It can be guessed, from the remarks of certain United States and Canadian officials among others, that our government is considering a definition of preferential rights based on economic dependence and size of vessel. While it is conceivable that this might be as

good a definition as any (although I doubt it), an analysis of the definition and its ramifications would require a large amount of highly sophisticated talent. Even if the economists in NMFS were not being downgraded in the NOAA structure, their staff—as competent as it is—is far from sufficient to handle the intricate problems of the economic consequences of alternative definitions. Even maximum public availability of information will not lead to easy answers to these difficult questions, but the answers will be far better than those that will be produced *in camera*.

Another harmful consequence of secret policy formulation lies in the great waste of the talent that is available to deal with ocean issues. Scholars who are not privy to the process and to the basic information are not able to make the best use of their time. They may be evaluating alternatives that have been discarded by our government, perhaps for good reasons—but reasons unknown to the public. They may be attempting to produce information that has already been produced by the government—but which the government chooses to keep secret. This duplication and waste of effort may also occur between different agencies in the same government and between different governments and different international agencies. In this regard, restraint on the availability of information is extremely damaging. But the consequence for the ocean issues is particularly serious, because of critical shortage of people who are knowledgeable about ocean policies, law, and economics and because of the critical shortage of time.

In addition, the secret formulation of policy reduces the choices available to the public and creates an inflexibility in national positions. When alternatives are not publicly presented or discussed, the only option open to the public is "yea" or "nay." This leads to polarization, rather than to compromise. And the polarization is reinforced by self-generating inflexibility.

Once polarization occurs, our government—in order to get acceptance of its position—must negotiate. And it does this, not by compromising its position, but by offering other items of value sought by its opponents—items that may be totally irrelevant to the position at hand.

Furthermore, for policies that must go through the process of advise and consent, congressional acceptance is unlikely unless there has been adequate public discussion prior to submission to congress and unless congress has been fully informed along the way.

To proceed in secret is to proceed on the presumption of infallibility. Our government does not release the basic information—the cables, the facts or the problems. Then it tells the public that the public is not equipped to deal with the policies because it does not have the necessary information—has not seen the cables. Some outsiders may be brought in to examine the information and to consult on policy, but they are generally agreeable outsiders whose contributions will support the views of our government. This reinforces the sense of infallibility and the feeling among the public servants that the servants know what is best for their masters, the public. This produces an insidious arrogance that tends to consider all opposition to be either deceitful or ignorant.

It should be pointed out, of course, that not all government officials demand the same degree of secrecy. Many would be more open if they could, but they find it difficult because of the pressures of time and crisis. It should also be pointed out that the arrogance and sense of infallibility are not necessarily the personal traits of the individuals—but the product of a process that operates in, and generates its own, demands for secrecy. My objections are to the process and not to the individuals, for it is the process that isolates the individuals from their public and it is the process that is so damaging to the interests of the nation.

Some of the impediments to the provision of information to the public are understandable. The necessity for dealing with one crisis after—and often with—another leaves harried officials with little time to discuss their policies with the public. In addition, the opening up of the process of policy formulation requires a great deal of time—time to educate the interested people and groups—time to debate the alternatives—time to receive and incorporate the feedback—time to modify proposals and time to placate those interests that cannot be fully accommodated. But, in the long run, it is likely that decisions can be made more quickly through open discussion of alternatives than by secret formulations that reach decisions that are rejected—and then must go through the process of reformulation. It is to be hoped that ways can be found to overcome the impediments and to open up the decision-making process.

My final assumption about the means for improving the decision-making process is that the issues must be clarified and stated with precision. The situation—particularly for fisheries—is changing so rapidly that foresight is obscured and major efforts must be made to anticipate, as accurately as possible, the developments that are likely to take place in the near future. One technique for doing this will be described by Professor William Burke in part two of this paper.

Research Needs on Ocean Issues: Part Two

William T. Burke, Professor of Law, University of Washington College of Law

Wednesday afternoon, June 23

I am going to make a suggestion that those of you who are here today who wish to do so participate in a project which we think might provide some very useful insights into problems of ocean management over the next ten to fifteen years. This proposal originated in the report entitled "A Preliminary Report On International Fisheries Management Research" of a working group of the Committee on International Marine Science Affairs Policy of the Ocean Affairs Board of the National Academy of Science. This group met in Seattle in March, and its report is now available.

The Law of the Sea Conference in 1973 is intended to be a milestone creating international legal arrangements for numerous ocean activities. It is generally realized that the far-reaching importance of Law of the Sea 1973 warrants careful planning and preparation. Consideration of planning for this Conference, from the standpoint of fisheries specifically, gives rise to a large number of problem situations, many of which are interrelated and exhibit considerable variability in scope.

The working group has listed some of these in this report, and more are contained in an attached document. It is difficult to determine, in the relatively short time that is available, how much effort should be applied to each problem, when studies should be completed, and whether in fact significant elements have been omitted from consideration. Insofar as the 1973 Law of the Sea Conference is concerned, we cannot be certain that the Conference will be held; nor do we know when it will convene, if it does. We cannot know whether the Conference will in fact be the meeting where important decisions are made, or whether decisions will be made before or after the Conference but independent of it.

If we can anticipate the nature of the stage upon which the Conference will be set and also have better notions of the total context of ocean activity over the next ten to fifteen years, we can better judge how much effort to expend on each proposed study area in arriving at an appropriate time phasing for their conduct. The answers to these questions are not simply derived; they cannot be characterized as black or white. The answers to such questions are judgmental. There are techniques for investigating these questions of judgment, and these involve the use of experts to essay primarily the future. If we could essay the dynamics of legal arrangement in the ocean for the next ten to fifteen years, including the Law of the Sea Conference as a major milestone along the road, we could then be better able to allocate our efforts to those studies that might provide the most important contributions to the Conference and to succeeding events.

The first task in this approach is the identification of the individuals who are experts. These might include persons who are not normally considered experts in ocean or fisheries policy issues, nor involved in them. The need is for informed persons who are successful in forecasting events such as the 1973 Conference. The questions asked of the experts must be carefully considered and prepared. They will very likely involve the prediction of issues that might be raised at the Law of the Sea Conference in 1973; the kind of decisions that might be made, including the failure to reach agreement on certain issues; the future impact of these decisions or non-decisions; the probable evolution of ocean legal arrangements in the years following 1973; the formation of blocs and bloc viewpoints of 1973 and later; the impact of various sorts of information on the Conference and thereafter, and what other elements external to our ordinary considerations might be important such as general United States-Soviet relations, the emergence of Communist China into the ocean scene, the evolution of a seabed regime, and so forth.

The procedure used to elicit expert opinions would be to ask the experts to write scenarios of future legal arrangements in the ocean, specifically including the 1973 Law of the Sea Conference as part of this future, and covering such topics as mentioned above. These scenarios would then be examined, compared and correlated. They may then be referred to the various authorities for further consideration. The completed scenarios will, if properly done, provide an expert view of the unfolding future, including the Conference in 1973; and with this projection we would be better able to allocate our effort and to limit the scope of the studies in terms of the most relevant problems.

That is the proposal in which we would like people to participate. We had not anticipated using this device, but we thought that if people were interested enough to attend a meeting of this kind, they might be interested enough to devote the effort that would be involved in answering a series of questions. A number of us have drafted a series of questions, which we would refine further with some outside consultation; and we propose to send these questions to those people who are interested in responding about the middle of July, with the hope of getting responses back in 90 days, with a first pass at an analysis of the responses by the end of this year.

Now, it is important to emphasize that responses would be kept confidential, and nobody's name would be attached to a particular point of view if he did not wish it; there would be an express question about that if there were any point in identifying people. I am sure some of you have participated in this sort of exercise before with respect to other types of matters. We have asked Professor John King Gamble, who is

joining the faculty of the University of Rhode Island in the fall, if he would serve as an analyst on this project. He has background in this area, and will be here at the University of Rhode Island. In addition, the Executive Board of the Law of the Sea Institute, with some outside help, primarily Brian Rothschild and Hiroshi Kasahara of the University of Washington, would serve as a kind of monitoring board to help Professor Gamble in the analysis.

What we are talking about here, I think is clear, is what people expect to happen, not necessarily what they would prefer to see happen, which are of course two entirely different things.

Eventually, I would hope before the middle of 1972, this would result in a formal publication; but in any event, the results of this project would be publicly available to anybody, and certainly, obviously, to the participants. That is the end of the proposal.

Discussion

Wednesday afternoon, June 23

Joye. Judy Joye, Director of the Oceanographic News Service. My question is directed to Dr. Christy. I believe his suggestion is a commendable one, and I would like to have some insight into the methods that he would use to implement this suggestion. For example, there can be indirect participation in the decision-making process by the publication of position papers through which opinions can be heard without a person participating in any formal meetings. Another method would be the selection of participants who would consult with the government, but then you run into the problem that there are so many capable people from which you can choose that I would like to ask how you would select these people, and what size would you limit a committee to?

Christy: This is a very pertinent and appropriate question. It is certainly extremely difficult to open up the process, and I wish we had time to explore in more detail some of the methods by which we could do this. You suggested two ways. The first with respect to Congress, I would heartily endorse. I think Congress as representative of the public should be getting more access to information than they are. If they can get more access, if they do get full access, then through the ordinary processes all points of view can be brought in in Congressional hearings, and materials would be out and made available for the public.

The second point—that of selecting certain people to act as consultants—bothers me a bit and I think I may have some disagreement with Mr. Burke and others on this. It bothers me to the extent that, as I indicated in my remarks, there may be a selection process based upon those who would give agreeable information rather than those who would give, perhaps, contrary information. Thus, I would hope that the information would be available to all interested parties, not just a selected few. Even this is extremely difficult. I am sure Mr. Brittin, who is on the panel, can point out some real difficulties that would be involved. It seems to me, in spite of the difficulties, that it is necessary to make every effort we can in order to achieve this goal.

Brittin: Permit me to dwell for a minute on the theme of non-participation by the public sector in international negotiations—not to distinguish our procedures in fisheries from other negotiations, but because there are several here who might not know how we proceed in this arena. The alleged requirement that for someone to be a member of the delegation he must be friendly with the administration is not the key to selection. I believe this to be valid whether it happens to be a fisheries negotiation or not. I will just cite some instances within the past three months because they are most recent and they are, I think, characteristic of what we have been doing for years. I think that our procedures have merited some very satisfactory results.

Within the last three months we have had three major negotiations in our end of the business. One of them was the annual session of ICNAF, with 30 to 40 representatives on the delegation. After that particular negotiation we had one with Canada in Seattle concerning a mutual fisheries problem. Some of the gentlemen here in this room today participated in that negotiation. I think there must have been some 20 to 25 industry representatives, and I understand there were about 30 representatives from Canada. At the present time in Washington, starting Monday, we happen to be the host for the International Whaling Commission, and I believe there are 15 representatives, both government and non-government, on that delegation.

When we approach negotiations similar to those that I have cited, we do go into all of the elements of the issue and the possible alternatives for settlement. This is in an open forum with the full delegation. The suggestion that some of the deliberations are kept from the public sector members of the delegations and are restricted to the bureaucrats I find rather fascinating. I remember some of the gentlemen in this room who have participated in our typical delegation meetings, and who have bloodied me and bloodied Ambassador McKernan considerably through the agency of a free flow of ideas within the delegation.

Frankly, the selection of membership or participation in the delegation is keyed to those elements of industry or local interest groups who find that they have a particular interest in a particular dispute. Again I do not say that this is always the case; a lot has to do with the particular subject under consideration. But I do say that in our fisheries negotiations, which I believe to be generally representative, there are open

avenues so that there is a strong link of communications between those concerned, be they government officials or representatives of the public sector.

Christy: I would like to make three comments. First, I recall a statement which was made by Ambassador McKernan two or three years ago at one of these conferences. He stated that one of the reasons for *ad hoc* bilateral arrangements with the Soviets, the Japanese, and the Poles was that they were less formal than treaties and, therefore, did not have to go through the process of advise and consent. They could, thereby, bypass Congress and the general public.

Second, while certain industry people are brought into the various negotiations, that is not the only part of the public that has an interest in the decisions that are being made.

Third is the question I would like to ask Burdick Brittin. How many people not in government will be participating in the delegation to the Geneva meetings in July?

Brittin: In the area that I am most familiar with, I believe we have a full representation. To the best of my knowledge, those that have a particular economic or political interest in the particular problem are represented on the delegation. I am inclined to think that we have been responsive to the public sector in our negotiation delegations. To answer the specific query as to the composition of the delegation for the law of the sea Preparatory Committee session in July and August, there has been no final determination; it is still relatively early in the game. We do expect to have a large number of representatives from the public sector who will be in Geneva. I personally am very much in favor of this, for the simple reason that public sector representatives can contribute, and have already contributed, a great deal because of their expertise. Centainly we do not consider ourselves to be infallible, and when I say that I mean that we welcome advice.

The administrative question as to whether a particular person is officially on a delegation I view merely at this stage of the game as a technicality. Essentially, what I am saying, if I may sum up, is that the consideration of how large the delegation will be and who will be on it certainly is not final as yet.

Alverson: I have two hats. One, I am an affiliated professor of the University of Washington College of Fisheries, and I am also Director of the North Pacific Fisheries Research Center, a laboratory of NOAA situated in Seattle.

In answering your question, I will speak in the capacity of a university professor. The answer to this question is probably known at high government levels, but not to myself or perhaps to the members of the U.S. Law of the Sea delegation. Hence, my views reflect what I think the situation will be. In the past, government has generally looked to the fishing industry for advice on fisheries matters; so the criticism of Christy is not true as it concerns most fishery matters affecting industry, science, etc. Dr. Christy is correct, however, in stating that the law of the sea matters have had very limited government exposure, and that during the July-August meeting there are not likely to be non-government delegates in attendance. I am not in a position to say what factors have governed this decision; that is, whether it is based on tactics, financing problems, security problems, etc. Personally I would prefer greater exposure of the matters involved.

A Third Law of the Sea Conference: Machinery and Strategies for Reaching Agreement

John Lawrence Hargrove, American Society of International Law

Wednesday afternoon, June 23

We have now come to the point where we talk about machinery and strategies for reaching agreement at a third law of the sea conference. More precisely, we are talking about modes of reaching agreement on the issues on the agenda—if any can be agreed—of a third law of the sea conference—if one is convened. The question is, I take it, one of *how* to go about *legislating successfully* for the oceans, within the reasonably near future.

THREE PERCEPTIONS OF SUCCESS

Now this is, of course, quite a different question from "how do we go about getting agreement at a law of the sea conference?" For, as ought to be well known (but perhaps is not), there is a substantial difference between "getting agreement" in the technical sense of producing a treaty at an international conference, on the one hand, and establishing an international legal regime, on the other. This is because governments often vote for and even sign papers they somehow do not get around to ratifying, and *a fortiori* are disinclined to ratify papers they voted against. More of this later.

Moreover, I think it is fair to say that not just any old agreement, even if it is transmuted into legislation by appropriate national action, qualifies as successful legislation for the oceans at this historical juncture. Of course, individual governments will quite naturally tend to regard the conference as having failed *pro tanto* to the extent that the treaty or treaties it produced did not incorporate their own positions on particular issues. But there is some good reason for inferring, from decisions already taken or being formu-

lated within the United Nations community, certain criteria which are fairly independent of particular positions on individual issues, and by which even a widely accepted treaty might nevertheless be adjudged a failure. These criteria have to do with the scope and the decisiveness of the resolution of issues which a treaty embodies. We will, of course, have a firmer basis for asserting the existence of a self-imposed standard of success on the part of the United Nations General Assembly when final decisions have been made as to the agenda of the conference. It is certainly safe to say that should the agenda cover the range of issues enumerated in Resolution 2750 (XXV), a treaty which either omits dealing with one or more of these issues, or having dealt with leaves major questions with respect to it unresolved, will to that extent have failed.

I need hardly add that there are deeper reasons which may be urged, in adjudging such a treaty to have failed, than the fact that the United Nations may have set up these issues as targets at which the third law of the sea conference should shoot. But it is not our job to talk about these reasons now. We should, however, take note of the important fact that there are participants in this process who will define a successful outcome precisely in terms of the failure of a treaty to deal decisively with certain issues, or perhaps the failure of the legislative process to produce any legislation at all. There is a saying in Spanish, which I believe is loosely translated "nothing succeeds like failure." Again, more of this later.

It is clear, then, that talk about machinery and strategy for reaching agreement at a third law of the sea conference is quite likely to rest on certain important if unarticulated judgments of value: it is likely to presuppose an objective of genuine agreement, and moreover the right *kind* of agreement. That is to say, it is likely to presuppose the establishment of an arrangement in the international community reflected in the assumption of widespread and uniform legal relationships among States, rather than simply the production of an agreed piece of paper by a gathering of governments; and to presuppose further that these arrangements amount to a decisive resolution of a fairly wide range of troublesome issues growing out of the expanding and increasingly complex patterns of human activity with respect to the oceans. And it must take into account the fact there are those who will tend to regard success in either of these senses as failure, and conversely.

THE INTERNATIONAL LEGISLATIVE PROCESS

What I have said thus far has liberally invoked the concept of legislation. I hope I will not be taken to task for thus having implied the existence of a genuine international legislative process, for what we are talking about here is of course just that: ramshackled as it is, the nearest thing to a global parliament yet devised. The particular strategies and machineries with which we are concerned are modes of action with respect to the operation of this process. It is of the highest importance, therefore, to understand a bit about the nature of this piece of legislative equipment: the salient features which distinguish it from other more conventional parliaments, why it works when it does work, how and why it breaks down when it does not.

One thing is clear: neither the United Nations General Assembly, nor the other plenary deliberative bodies which are its analogues in other "universal" organizations, either individually or collectively, constitute the legislative arm of the international legal order. True, they are capable of generating certain new international legal rules—and the creation of new rules is the essence of the legislative function. But these rules are much too narrow in scope to comprise anything more than internal legislation for the respective organizations of which these bodies form a part. When they do legislate, these bodies do so by the highly efficient majority decision-making devices characteristic of well-developed parliamentary institutions. But it is a reflection of the overall state of development of the international community—a quite primordial one indeed—that these devices are applicable only for a narrowly circumscribed range of legislative actions, and that even within this range their exercise is sometimes too much for the traffic to bear. (A classic example of the latter was political incapability of the U.N. to apply its Charter provisions regarding payment of dues assessed by the General Assembly, and loss of voting rights for non-payment, against the Soviet Union.)

The legislative organ of the international legal order is a much more cumbersome and loosely strung-together affair. Its prototype is found in the United Nations codification process, based on Article 13 of the United Nations Charter which envisages the "progressive development and codification" of international law as one of the functions of the General Assembly. This process is replicated, but with much narrower ranges of competence, in the organs of the Specialized Agencies, whose legislative activities on occasion overlap with or merge into those of the United Nations.

This legislative process consists of a rich if amorphous body of practice and experience within the organization, encompassing an oddly assorted collection of rules, procedures, and modes of action of varying degrees of informality or formality, which are invoked by governments and members of the Secretariat from the moment a proposal for a treaty is placed before the General Assembly until it is finally disposed of through the conclusion of a draft treaty or otherwise. The formal steps are of course the easiest to trace: the General Assembly refers the proposal to one of its own main committees, where initial, and sometimes almost impromptu, views of governments are gathered. If the proposal survives it is likely to have done so only after considerable modification, and will be referred to some further, more specialized body such as the International Law Commission (which played an important role preceding the earlier law of the sea con-

ferences) or a special functional intergovernmental committee such as the United Nations Committee on the Seabed. Further procedural convolutions within this special body may result in the establishment of *ad hoc* devices for examination of and ultimately negotiation upon the substance of the issues, and eventually, after much reference back and re-reference among parent and offspring groups, the drafting of language in the form of treaty law. On the basis of this work product, the penultimate stage of plenipotentiary negotiation and drafting may then be reached, typically in a special conference, although on occasion in a regular session of the General Assembly itself.

Each of these formal steps rests, with greater or lesser security, on a foundation of highly informal modes of negotiation, accommodation and decision which must surely have their kin in genuine parliamentary processes everywhere. They are often *ad hoc*, even if rooted in the experience of 25 years; they are frequently time-wasting and just as frequently ineffectual.

The same, indeed, can be said for the international legislative process as a whole. What is important, however, is, first, that it is not always ineffectual—it does on occasion work—and, secondly, that it exists, and is the only legislature we've got for making law for the oceans within the international community. We are accustomed to parliamentary processes which produce legislation binding even on those who oppose it.

The most striking feature of the international legislative process, in contrast with others of our familiar experience, is that formally it cannot make law for any of the participants in the legal order for which it legislates who don't wish it to do so. This is true, notwithstanding the fact that each successive stage of the cumulative process—with the sole exception of the last—may provide, in the manner of conventional parliaments, for majority decision-making binding even on dissenters. This cardinal fact—that the last essential step in the legislative process is, legally, a consensual one on the part of each participant—sets the parameters of the politically possible, and colors —or should color—every tactical and strategic calculation in the process from beginning to end. One result of it is the greater ease with which recalcitrants against the process itself—that is to say, those who really don't want legislation produced in the end—may impede the process by diversionary or other dilatory gambits enforced on the majority by the implied threat of nonparticipation either immediately or ultimately. The more numerous or consequential the recalcitrants, the more effective their tactics.

Now what is the point of this recitation of the obvious for a new law of the sea conference? There are several. First, the potential of the existing international legislative process to transmute a welter of conflicting political objectives into an effective piece of legislation is an independent variable in calculating the conference's chance of success. It must be assessed on its own and weighed into the calculation just as carefully as the positions of participating States on issues of substance. Second, the range of issues likely to be placed before the conference engages interests of such depth, magnitude, and complexity as to place unprecedented strains on this process—a flimsy and fragile one at best—and to raise serious questions whether it will be capable of avoiding breakdown and producing successful legislation. The success of a new law of the sea conference, in other words, has to do in a significant measure with the skill with which this existing legislative process is managed. Let me now try to identify a few *kinds* of ways in which such effective management might be pursued—and perhaps in the course of doing so to identify some further salient features of the process itself.

Organization and Methods of Work of the Committee and Conference

A good deal hinges on the internal organization and methods of work of the preparatory committee (the enlarged United Nations Committee on the Seabed) and the conference itself. It is probably too early for any very fruitful discussion of the details of the organization of the conference itself, since not only are its agenda and composition undetermined, but indeed it has not as yet been finally called. There is, however, an important organizational principal or two which will apply alike to the conference and its preparatory committee. For example, both bodies are too big, and the issues too numerous and complex and perceived as too important, for either body to get anything done in plenary session. The conference will probably embrace 130 to 140 States. The preparatory committee comprises a membership of an apparently indeterminant number ranging in the 80's—a fact which makes it a grotesque behemoth among U.N. committees, until one recognizes that it must for practical purposes be regarded as an intermittent first session of the conference itself. If there are any certainties in this uncertain affair, one of them is that in order to accomplish anything significant the committee will have to devise radically smaller, probably informal bodies through which to conduct negotiation, decision-making, and drafting if any, in the intermediate stages of its work. Such a move does not, formally, raise an issue of one nation-one vote, since the final work product of the committee will be adopted only in its plenary organ. It does, however, require States not participating in the subgroup to acquiesce in a diminution of their effective influence over the outcome. And it characteristically exacts this price more heavily against weaker, less influential States than against others, since the composition of such a subgroup is usually adjusted to give somewhat greater voice to the strong and influential. The question of forming effective working subgroups of some sort is thus an important test of the extent of the commitment of the membership at large to the community system in which they are participating, and thus of the

viability of the system itself under the stresses of the present circumstances.

It is also probably useful, but less important, that the prospective subject matter of the conference be sliced up in some manageable way and apportioned among the subgroups. The preparatory committee has already taken the first step in this direction by establishing subcommittees, to which it has apportioned, respectively, the seabed regime (Subcommittee One), the question of pollution and scientific research (Subcommittee Three), and everything else (Subcommittee Two). Since these are subcommittees of the whole, however, they cannot be expected to rise above that level of dinosauresque efficiency which would characterize any United Nations committee of almost ninety members, without themselves turning over effective negotiating authority to small groups.

In the conference itself, an important part of the issue of internal organization is likely to be the question of forming a drafting committee, such as the group which played a crucial role in the most recent major U.N. codification conference, the conference on the Law of Treaties.

Why are such devices as small working groups or negotiating groups important? We can best understand this question by first taking a look at the overall strategic problem of a State or group of States whose basic objective is ultimately to produce a treaty, and by comparing it to that of participants who basically oppose a treaty. It is hardly a profundity to observe that a State is likely to place itself in the first group—i.e., to favor a successful outcome of the legislative process—to the extent that it calculates that its positions of substance are widely enough shared to make their incorporation into the treaty likely, and if it feels that it would be at least no worse off should a new legal regime replace the existing one. Conversely, States will tend to place themselves in the second group to the extent that they calculate their positions as to what a treaty should contain are unlikely to be incorporated into it, or because they would in any event prefer the status quo. Few States, of course, will stand with unequivocal enthusiasm and steadfastness in one or the other group. Most maritime States will be somewhat schizoid from the outset, feeling tugs from both camps. And some, depending on the depth and complexity of their ocean interests, may find themselves vacillating hotfootedly between the two groups as negotiations proceed and previously unanswerable questions about the outcome begin to be answered.

Now, as much of the foregoing indicates, it is clearly not enough for the first group—the treaty makers—simply to enlarge itself to the point where it commands the votes necessary to squelch dilatory tactics by the second group—the recalcitrants—and adopt a treaty. Mustering such a majority is a *necessary* condition for the achievement of their objectives, but not a sufficient one, and it is often not particularly hard to accomplish. What *is* difficult is utilizing the machinery of the legislative process, including devices available from time to time for majority decision-making binding on dissenters, with sufficient skill and political acumen to avoid generating dissent of such depth and intensity that the dissenter feels compelled to drop out of participation altogether (either forthwith, or at the ultimate stage of acceptance of the treaty). Pulling this off will require two things: *first*, putting together a formal majority in favor of a package of possible treaty provisions which, both because of its content and because of the range of States in support of it, does not exceed the level of maximum tolerable outlandishness; and second, by whatever means may be available, maximizing the advantages of participation in this group and the costs of standing aside from it.

The strategy of a State in the second group— a recalcitrant—must be, not surprisingly, to thwart that of the first. One effective but somewhat risky device for this purpose is to appropriate the majority position. One sniffs out what appears to be that combination of positions capable of commanding widest support, and seeks so to load it with features unacceptable to this or that body of opinion as to render it unviable for practical purposes even though it may continue to command a numerical majority. This sort of multi-polarization carries the risk, of course, that too many of those on whose obstinance the recalcitrant is relying may be converted by the fervor of his advocacy. In any event, a recalcitrant will wish to forestall the creation of any device which would permit a genuine probing of real positions and the resulting identification of any areas of genuine and widespread agreement. This is, of course, precisely the purpose of small, largely informal working groups of negotiating groups, and from his point of view they should therefore be opposed, by creating the impression of hopeless division in the group as a whole (as just indicated), by promoting protracted argument on their procedures or terms of reference, or, such more elegant devices failing, by simple dogged negativism.

Political Alignment and Organization among Participants

So much for questions of organization and procedure within the Committee or the conference, and some of the underlying strategic considerations which make them important. What I have just said clearly points to another kind of strategic consideration: namely, political alignment and organization among participants. The question is: what combination of substantive positions and supporters of those positions among participants will maximize the likelihood of successful legislation on the oceans? I hope I will not be regarded as unduly timid if I say that this is another question on which it is by and large probably too early to speculate fruitfully. There has been only one meeting of the preparatory committee since the possibility of a single conference embracing every currently important law of the sea issue has been clearly envisaged by the United Nations. This new state of af-

fairs has generated new proposals for more comprehensive ocean regimes than had previously been regarded even by their authors as within the negotiating ballpark. And it alters the nature of the strategic calculations based on relationships among the various issues which may be placed on the bargaining table. There is the added uncertainty that, while the possibility of a quite comprehensive single conference has been envisaged, no final decision on such a conference has been made and one of the issues now in the early stages of negotiation is just the issue of the comprehensiveness of the plenipotentiary meeting.

One cautious speculation may nevertheless be in order. An important issue—the raising of which triggered the current round of consideration of law of the sea issues in the United Nations—has to do with whether a generous international legal regime governing exploitation of deep seabed resources is acceptable to the international community. To be only slightly more precise, I mean by this a regime applicable to a geographic area of substantial economic significance in the near-term future, and conferring prerogatives on an agent of the international community having substantial regulatory and economic consequences. By now there has been placed in the record a considerable number of proposals, covering quite a wide range of possibilities as regards the scope of an international seabed area, the extent and geographical application of international and of national prerogatives, and other relevant features.

By way of illustration, may I say that I would not regard the proposal of Ambassador Pardo of Malta at the recent meeting of the preparatory committee as a proposal for a generous and international seabed regime. His scheme, while it loads the international authority with comprehensive prerogatives, excludes that authority for practical purposes from the area of significant activity for at least the near-term future, and thus leaves both the reaping of benefits from and the inflicting of injuries upon the seabed largely to the discretion of States or their nationals. The proposal of Tanzania for an international seabed authority is certainly genuinely international, but cannot be assessed as to the scope of its application since it is silent on that point. The proposal of the United States for a wide seabed area, large shoreward portions of which would be under substantial control by coastal States as trustees for the international community, comes nearest of any formal proposal of which I am aware to qualifying as a proposal for a generous international regime, but it has been faulted for its niggardly allocation of international prerogatives in the trusteeship area. The issue of a narrow band of exclusive coastal-State control not only for seabed exploitation purposes but also for navigation has of course been closely linked by some to the issue just mentioned, not only because of obvious conceptual connections but also because there are substantive reasons to regard it as a sound negotiating position to do so.

My own imperfect appreciation of the present state of policy-making on the part of United Nations members strongly suggests that if a law of the sea conference is to produce an agreement embodying a geographically generous and genuinely international seabed regime, the first prerequisite will be the mustering of a substantial majority among developing Asian and African countries favoring such a regime and moreover willing to accept a narrow zone of exclusive coastal-State jurisdiction for navigation purposes. Should this be achieved, it would bring within the range of possibility the putting together of a sufficient majority among the participants as a whole to keep this position alive. (Probably the latter could be achieved only at the cost of acquiescence, by supporters of the position typified by the United States proposal, in the importation of certain greater international prerogatives with respect to the portions of the slope and rise lying beyond exclusive national control). Such a working majority on this issue might reasonably be expected to include a large number of developing Africans and Asians, the United States and a handful of Western Europeans, and perhaps ultimately a few mavericks from the Western Hemisphere. Such a group would confront the bulk of Latin America, Eastern Europe, and a small number of developing Asian and African countries anxious to protect what they regard as vested interests in offshore mineral extraction activities.

Structure of an Agreement

I spoke earlier of the necessity, once a working majority on a reasonably promising package of provisions appeared to have been put together, of maximizing the costs of standing aside from that agreement. There are, of course, a variety of ways to do this. One is to make it clear that some accommodation to the positions of dissenters can be reached via a willingness on their part to join the majority but will not be reached otherwise. The importance of those variegated modes of expressing displeasure against a State that impedes an emerging agreement and which governments calculate among the political costs they seek to avoid in a negotiation should not be underestimated. Another device which stands in danger of being overlooked in the shuffle is rigging the structure of the agreement itself—as distinguished (to the extent that it can be so distinguished) from its content—so as to maximize the costs of failing to participate in it. For example, if by "the agreement" we mean the whole body of rules which a conference proposes be turned into law through national ratification, it is probably the case that the potential for inducing a State to support the agreement, by enlarging the prospective deprivations it will otherwise suffer, increases in direct proportion the comprehensiveness of the regime embodied in that agreement, and inversely in proportion the number of separate treaties in which that regime is embodied. For example, in a treaty governing exploitation of seabed resources only, there is relatively little disadvantage for a coastal State with rich offshore mineral resources

in standing aside from an agreed regime which would internationalize part of its claimed offshore area, possibly even in the case of a regime envisaging quite substantial international revenues, assuming it can securely exploit that area on its own. The same would be true for a State with broad claims to rich offshore fisheries, in the case of arrangements on fisheries which would, as some propose, subject part of its offshore areas to some form of community regulation and take part of the revenue. But what of a comprehensive treaty regime which, in the case of a State that fails to participate because of its own strong interest in one or two uses of its own offshore, denies that State a wide range of *other* uses and benefits in both international and national areas? Such a treaty would provide added inducements for the especially heavy sacrifices which acceptance of the agreement as a whole would exact from that State. The point is that the cost of nonparticipation is likely to increase as the number of beneficial uses of ocean space covered by a single agreement increases: it will do so simply by the operation of treaty law, and probably could be made to do so to an even greater extent by provisions specifically obligating States not to accord advantages of specified types to nonparticipating States through arrangements extraneous to the treaty.

It is not clear to me to what extent considerations of this kind underlay insistence in the U.N. General Assembly in 1969 and 1970 on a law of the sea conference more or less comprehensively covering all outstanding issues. It is clear that the apparently emerging consensus or at least majority position in favor of a comprehensive conference—in preference to the earlier United States position in favor of a series of conferences dealing separately with "manageable packages" of issues—gives strategic considerations of this kind considerable relevance. An obvious note of caution should be sounded, however: namely, the more uses of the ocean dealt with in a single treaty, the greater the burdens of participation. Classically, moves to split among several instruments a regime which might plausibly be regarded as an integrated whole, as by writing several treaties or a single treaty with protocols appended, reflect an assessment of the political situation against the possibility of widespread support for a comprehensive regime.

TWO MORE IMPORTANT MOVES

Finally, may I mention without elaboration two further, quite different kinds of moves which should be carefully weighed during these early stages of the emerging negotiation in the interest of successful legislation on the oceans. The first is a move at as early a stage as possible toward universal participation in this legislative exercise, or at least universal *enough* to include the People's Republic of China and the German Democratic Republic. The question why these two States in particular should be included in a process which aims at legislating globally provides its own answer, and there are doubtless few governments who in their private councils at least would dispute the point. What is more likely to be overlooked is the strong desirability of making the necessary moves early enough to include the People's Republic of China and others in the early stages of negotiation—i.e., those preceding the formal convening of the conference—or at least to give them the opportunity to be included.

Second, I am impressed with what appear to be substantial lacunae in the solid base of information and independent analysis on which ocean policy-making in the international community should rest. This appears to be true of two fields in particular: living resources, including, of course, commercial fisheries, and legal and institutional arrangements respecting ocean scientific research. If my impressions are correct, there should be crash efforts both in the public community—international and national—and in the private sector to fill these gaps, with particular cognizance of the form and content of the issues actually emerging in international negotiation. As to the role of international organization secretariats in this regard, it may be that efforts similar in breadth and scale to those undertaken in preparation for the 1972 United Nations Conference on the Human Environment should be undertaken. The FAO has provided a piece of necessary research on fisheries. The United Nations Secretary-General is now completing a study on economic implications of seabed resource exploitation.

I would hope that, in any event, the summer meeting of the preparatory committee would thoroughly canvass needs as perceived by participating governments, so as to take advantage of the time yet remaining for a systematic utilization of all research and analysis resources that may be available.

Panel: Machinery and Strategies for Reaching Agreement

Dayton L. Alverson, North Pacific Fisheries Research Center, National Oceanic and Atmospheric Administration—National Marine Fisheries Service

Wednesday afternoon, June 23

Let me begin by complimenting the last speaker on his paper. I had the opportunity to read it last night and it clearly reflects the author's competence in using and understanding the English language. It also reflects well on his knowledge of international institutional arrangements, legislative processes of the United Nations, and its suborganizations. His thoughts were refreshing. His comments on the legislative processes of the United Nations and some of its frailties were quite intriguing. Dr. Hargrove had a message in his speech pointing out that the 1973 Law of the Sea Conference would reflect an air of genuine interest in accomplishing its goals through the formation of working groups to tackle important problem areas. We might also pay attention to his thoughts concerning procedures that might fall in the area of diplomacy and its impact on a successful conference. Interesting enough, he also tells us how we might go about the job of seeing to it that the Conference does not succeed. Hence those who wish to achieve this particular goal have also received the benefits of Dr. Hargrove's advice.

At the onset of his paper, he established a criterion of success. In doing so he points out the question of success depends upon one's definition of success; that is, what does success mean and to whom? A possible criterion of success would be that the conference managed to provide a new legal regime under which international tension was reduced and processes of extracting the oceans' wealth could proceed in an orderly manner. Dr. Hargrove leads us down the precarious path of the international legislative process and examines its frailties and values. In one sense his paper might be more appropriately entitled, "Law of the Sea and the Perils of Pauline." It is appropriate to note that it is a long way from a conference to manifestation of an article that becomes law by consensus of the international community.

I have little criticism of Dr. Hargrove's paper. He has dealt largely with international arrangements and has not tried to comment in any detail on the substance of the conference, apparently feeling it is too early to get more than a rudimentary understanding of substantive issues.

It is perhaps appropriate, however, to make a few comments in respect to a successful conference. It would seem that if the conference is to be successful that an antecedent philosophy must develop which establishes credibility in the fact that the conference can be successful; that is, a positive international attitude must evolve. Hence it would seem one of the first tactics that must be employed is to convince a sufficient number of nations that the conference has something to offer in terms of solving international problems as they relate to use of the ocean and that they will be better off as a result of the conference than if the conference failed. We must agree that success vis-a-vis that of not having a conference or failure of a conference is the best possible course. If we do not establish a degree of credibility in the 1973 Conference, there is likely to be an erosion of the capacity of the 1973 Conference to resolve international problems and subsequent unilateral actions may take place that may be less advantageous to the world community in general. I would think that a new legal order as it relates to the law of the sea can be better achieved through subjecting views to the logic and totality of the world community than through the unilateral action course.

As a second point, I would like to comment on the area of diplomacy. Dr. Hargrove alluded to this aspect in his paper. If some of the comments heard in previous dialogue reflected U.S. policy rather than individual views, then we are in deep trouble in '73. It is perhaps time to stop identifying certain geographic areas or States as the extremists and using such terms as "obstinate" to identify those who do not agree with our policies. Although there is obviously a wide divergence of views on all issues confronting the conference, labeling any one set of views as extreme will only polarize the extremes that exist and will not tend to evolve an intermediate posture. A little show of diplomacy could be advantageous.

Dr. Hargrove did mention the possibility of reaching accord in the area of seabed resources and spoke of finding a common view that might be attractive to the world community. He felt that the international regime as related to the seabed had to have adequate spatial distribution and encompass a sufficient number of resources to make it attractive. There seems to be some doubt that the existing proposals really do this and although a great deal of rhetoric fills the records of the March conference relating to common heritage, the common heritage concept may be more fashionable as a term than it is in terms of national commitment. It would appear that the common heritage is that part of the ocean remaining after we assign most of the catch to some national regime. In this respect, it would appear that national self-interest is as prevalent in the devolping countries as it is in the developed countries and this self-interest must be examined carefully if we are to ultimately achieve accord. At any rate it would appear that we must examine all options carefully before making decisions, and Dr. Burke is right in stating that we need a better decision-making mechanism.

Finally as regards to substantive issues, it is obvious that an underlying theme of the conference will be the allocation of resources, and although considerable at-

tention is given to management and conservation of living resources, a key underlying theme that reflects problems of allocation is clear. The important point here is that resolution of conservation problems will not provide a satisfactory solution to the problem unless the allocation problem is dealt with in an effective manner.

A few comments on Dr. Wooster's statements on scientific research. I am in general accord with what Dr. Wooster had to say regarding freedom of scientific research, and I am in accord with his interpretation of the facts. The problem is finding a solution to the problem confronting the scientific community; that is, tactics. To understand the predicament of ocean sciences, we have to accept the fact that there has been a basic change in public opinion related to the so-called hard sciences vs. the social sciences. Whether we like it or not, we in the hard sciences are perhaps not as high on the totem pole as we used to be.

I don't think it is a particular advantage to keep talking about science being good for humanity. It is something like taking vitamin pills. The tangible evidence of benefits is often hard to see for most individuals. Although science may indeed be a major contributor to the welfare of humanity, there are those who feel it is more beneficial to those humans who have the knowledge to take advantage of science and others who see it as increasing the differences between the haves and have-nots. In terms of tactics, it might be better to differentiate the process of behavior of science vs. the responses it subsequently stimulates. We need to make it clear that science develops an information base, establishes hypotheses to explain the behavior of physical or living matter, and is a process of tearing down old theory and developing new. We can say that science performs best in a free operational environment where it is not hindered by bureaucratic restrictions. We should, however, admit that science must assume certain responsibilities in terms of how it behaves.

There is also the problem of the distribution of scientific capability. If sufficient scientific talent existed in many of the developing countries, the fear of scientific activity in an adjacent coastal area probably would not exist. Finally many of the problems that relate to controlling science and the oceans may go away if the underlying problem of allocation of resources is resolved.

I hope you will allow just one minute to tell a little anecdote I have not heard since I have been here, and may not be allowed to anyway because it is due to the frustration of a member of the delegation who has been a member and associate of the law of the sea conference. When one looks at the tremendous number of obstacles in the way of success in the world of Dr. Hargrove and others, one sees day in and day out that every suggestion has a number of advocates and thus almost comes to the conclusion that there is no solution. But I am sure there is, and in terms of my anecdote—I sort of feel like the little bird that was out on a country road, lying flat on his back with his feet up in the air. A horse came along and said, "Little bird, why are you on the ground like that with your feet up in the air?" The bird said, "Mr. Horse, haven't you got the message, the sky is about to fall down." And the horse began to laugh and said, "Do you think your skinny pretzel legs are going to hold the sky if it falls down?" and the bird answered, "One does what one can."

F. M. Auburn, Faculty of Law, University of Auckland

Wednesday afternoon, June 23

Progress to date in the Seabed Committee has been very slow. Much delay has been due to procedural questions.[1] This brief discussion will examine some State practice which supports the view that many important questions may be foreclosed by State practice before 1973, unless urgent action is taken.

Division of the entire ocean bed is not a pressing problem. But there is a significant and accelerating trend to division of all those seabed areas which may yield profit in the near future. The agreements signed on January 28, 1971 by West Germany, the Netherlands and Denmark concluded the division of the North Sea.[2] The Persian Gulf has already been divided up between the coastal States. Sudan and Saudi Arabia have effectively assumed jurisdiction over their adjoining Red Sea areas. Denmark has granted concessions extending up to the undefined western limit of Greenland's continental shelf.[3] Negotiations have recently begun between Canada and Denmark on delimitation of this boundary.[4] Norway and the Soviet Union are engaged in discussions regarding their Barents Sea continental shelf boundary. The examples given are only a sample of a general trend.

As regards unilateral claims to continental shelf areas, I suggest that State practice has already gone far beyond 200 meters. A few instances will illustrate

[1]For instance, 21(2) *New Zealand Foreign Affairs Review* (February 1971) 55.

[2]The implications of these agreements are discussed in F. M. Auburn "The North Sea Continental Shelf Boundary Settlement" (1971).

[3]Area 19 (Tenneco Oil and Minerals Ltd.) and Area 20 (Compagnie Francaise des Petroles), *The Geological Survey of Greenland*, "Specifications of Concessions and Prospecting Licences granted by the Ministry for Greenland" (1971) 4.

[4]Letter from Mr. Otto Jensen, Ministry for Greenland (June 10, 1971).

just how far. Canada has issued offshore oil and gas permits in water depths ranging to 2,600 meters in the Beaufort Sea region, 2,800 meters in the Grand Banks, and 3,700 meters in the Scotian Shelf region.[5] New Zealand has issued petroleum prospecting licenses over large areas in water depths down to 1,000 meters.[6] Of special interest is License No. 863 granting to Hunt International Petroleum of New Zealand over 154,000 square miles in the Campbell Plateau region.[7] Under the Australian Petroleum (Submerged Lands) Act 1967 the Commonwealth and States cooperate in work over the Australian continental shelf. The Second Schedule to the Act apparently covers wide areas deeper than 4,000 meters.[8] The Australian Bureau of Mineral Resources is at present engaged in an expensive investigation of its continental shelf resources between 200 and 4,000 meters.[9] These examples of unilateral acts from Canada, New Zealand and Australia all involve large expenditures at depths far deeper than 200 meters.

Finally, in the field of manganese nodules, Deepsea Ventures has already spent between 16 and 18 million dollars on research.[10] Deepsea has recently stated that it "is ready to file a claim on a specific ore body now."[11] A number of other enterprises are also engaged in research in this field, as are several governments. It is difficult to contemplate Deepsea, or any other enterprise in this field which may be able to recover nodules, waiting for several years. The dangers of competitors getting in first, or leakage of information on the possible sites, are very large risks to their investments.

Deepsea has already proposed that the United States take unilateral action in this field, by passing a Deep Ocean Floor Resources Act.[12] Such legislation would be purely domestic and provide for protection for prior registered claims against a possible future international regime.

In conclusion I suggest that trends outlined here may to a large degree foreclose seabed questions before 1973. Urgent practical action by the Seabed Committee is needed *now*, not in 1973.

[5]D. G. Crosby, "Mineral Resource Activities in the Canadian Offshore", 6(1) *Maritime Sediments* (April 1970) 30, 31.

[6]Petroleum Concession Map (1970).

[7]At an annual fee of $77,000.

[8]The schedule lists the coordinates. For a convenient map see Bank of New South Wales, "Offshore Australia" (1971) 51.

[9]Minister for National Development, "Off-Shore Surveys" (News Release) (March 23, 1970).

[10]For a more extensive discussion, see F. M. Auburn, "Manganese Nodules in International Law", 5th World Conference on World Peace through Law, Belgrade (July 21-25, 1971).

[11]R. J. Greenwald, "Problems of Legal Security of the World Hard Minerals Industry in the International Ocean" Offshore Technology Conference (April 20, 1971).

[12]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 (June 29,-July 1, 1970).

Burdick H. Brittin, Deputy Coordinator of Ocean Affairs, U. S. Department of State

Wednesday afternoon, June 23

While I am from the State Department, today I speak as an individual, and from rough notes. First, let me say that I thought Larry Hargrove certainly spelled out the fundamentals of the machinery and strategy required if we are to make progress. In essence, we can say that he was looking at how the stage is to be set and what is the present state of the stage, and he indicated some of the changes that might be advantageous in keeping that stage set or modified.

My comments are in regard to that stage. They may not appear to be interrelated, but I believe that they all relate to the fundamental issue of creating the most advantageous situation for reaching agreement. How can we produce the best stage for reaching agreement? The first thing that comes to mind is that while we must certainly recognize that in the final analysis political factors will and should play an important role in the decision-making process, we can increase the likelihood of success by depoliticizing our effort as much as possible, both in the proceedings in the Preparatory Committee and at the Law of the Sea Conference itself.

One step has already been accomplished in that the world community has moved the proceedings from New York to Geneva. I say that because I feel that New York is just about the central core of international politics, and the farther away we get from New York, the greater the likelihood for the world community to find solutions to the ocean issues.

Second, and this is in relation to the matter discussed this morning, the intangible and non-ocean elements involved are certainly very very present. I defy anyone to suggest that perhaps these considerations do not play a part in any country's views and positions. These elements certainly must be recognized; we cannot put them in our hip pockets. But in recognizing them, I can see advantage in trying to keep them contained or muted by treating them in proper perspective.

Third, I share the view strongly that there is no question that the basic issues we are dealing with are interrelated, but I would suggest that there is advantage and there are ways to keep them as separate as possible. In postulating the above I recognize the fact that, for example, the settlement of the question of the breadth of the territorial sea is tied to the question of fisheries, or that pollution is tied to the questions of the territorial sea and fisheries. Indeed, we can make a full circle of interrelationships using any combination of the major issues before the law of the sea Preparatory Committee.

One looks at the matrix of basic issues and can see that it is the interrelationships that make our problem so complex. The question then is, how can we proceed so as to separate out these various issues as much as

possible? I think that question can be reduced to who it is that should ferret out and assimilate the facts concerning each particular issue. To me the answer is the experts in the particular field, be it scientific research, pollution, or fisheries. When Larry Hargrove said that best results are obtained working in small groups on specific issues, I feel sure that he meant small groups composed of experts in the field. It is in this arena that the experts can play a very major role. To me the working group should ferret out all the facts, correlate them, and really begin to put together what would later constitute the regime for each particular issue.

I recall here that prior to the 1958 Conference, there was a specialized conference on fisheries conservation in Rome. Mr. Herrington, present here in the audience, headed our U. S. delegation in which the experts in fisheries looked to the question of conservation in fisheries, reached common understandings, sent their results to the International Law Commission, and from there to the Conference where it was eventually adopted.

There are, however, certain problems associated with experts. How does the world community get experts to participate in the development of the regimes for the Law of the Sea Conference? For example, many smaller countries have small ministries, and therefore few experts; many of them indeed are tied specifically to very heavy domestic issues which restrict their movement to and in the international forum. In like context, and I am thinking here particularly of Africa, where I happen to know that the great majority of coastal States do have experts in fisheries, the question frequently comes down to the financial aspect, i.e., how does country "A" get its fisheries expert to Geneva.

Fourth, and I would trust that the United Nations permanent representatives here in the audience do not take offense to this, but a great deal of expertise on the seabeds has been built up by the permanent representatives of the various countries who participate in the United Nations Seabed Committee. Collectively, they represent by far the most knowledgeable group in the world on seabeds issues. It is only right that they should be the ones who should carry on the work in the seabeds issues. But I would note that now we have been charged with a Conference with a much greater spectrum of issues, all of which require knowledge and expertise quite apart and different from the seabeds issues. I would suggest that to handle these issues in the most knowledgeable way, national experts on these subjects should be on delegations, and not leave the entire matter in the hands of the U. N. permanent representatives.

Another step, administrative in character, can be taken to help set the stage. Looking to the mechanism of the Secretariat that has been put together for the preparatory Committee, it is this Secretariat that has built up a central fund of knowledge concerning the seabeds issues. Obviously this fund of knowledge must be maintained and fully utilized over the next few years pending the completion of the Law of the Sea Conference. But again here we have a group, the present Secretariat, very knowledgeable in seabeds matters but with little or no depth of experience in the other issues. I would suggest that in order to provide the best mechanism in the Secretariat to meet the issues of pollution, fisheries, navigation, and scientific research, that experts from the specialized agencies be seconded to the Secretariat. I am referring to a specialist or specialists from IOC for scientific research, from IMCO for a great variety of issues involving pollution, and from FOA for scientific and conservation matters related to fisheries. Indeed, many delegations spoke to that point in March in Geneva, and it was my understanding that the necessary steps were being taken to effect the seconding of such experts.

Dr. Hargrove did not mention, as I recall, the machinery or the strategy of voting. How do we reach agreement? Do we use a system based on consensus? Or do we have the working groups or subcommittees operate on the majority vote rule and the plenary utilize a two-thirds rule? Suffice it to say at this juncture that to me the time-tested way to make progress is through the agency of the majority and two-thirds plenary concept.

The point was raised earlier that perhaps normal diplomatic efforts could be utilized in lieu of a conference to settle the issues of particular concern to the United States. It strikes me that the reason we are having the Conference and having these several sessions of the Preparatory Committee is simply because there are different views by different countries concerning the various issues. Obviously the vast majority of States felt that such issues should be discussed and resolved in a world forum. Indeed, if there were not a difference of views, I would suspect that the countries concerned could sit down tomorrow and write the regimes necessary. To resolve these issues we must meet in a demonstrated atmosphere of willingness to accommodate national views and, indeed, accommodate such views to the facts of the individual issues.

I must note an earlier comment that there are good guys who want to move ahead towards a successful Conference and bad guys who want to kill the Conference. My point here is to fully subscribe to what Dr. Alverson said, that we do not really meet issues if we begin to label various delegations as good guys and bad guys.

Let me turn to one other rather elementary factor, and that is the physical plant that is available for handling the negotiations in the Preparatory Committee. As I understand it, and as I recall in Geneva, there are two rooms available that can handle the delegations of 86 countries. Under this physical limitation I personally do not see how there can be continuity of the work of the subcommittees or any working group.

Indeed, I can see the situation wherein a subcommittee of Committee One, Dr. Seaton's subcommittee, meets perhaps on Monday morning and is not able to meet again until Wednesday afternoon, and so on. Obviously this would be detrimental to the progress desired. Continuity in sessions involving negotiations is a necessity. Thus, the question should be looked at as to where the most desirable facilities are, to see what can be done about holding the remainder of the preparatory Committee sessions at that location.

Most of the elements I have mentioned are rather pragmatic, but I suggest that they flesh out some of the basic principles that Larry Hargrove spoke of. In considering the machinery and the strategies for reaching agreement, they are in fact key elements in providing the best stage for reaching agreement.

L. F. E. Goldie, Stockton Chair of International Law, Naval War College, Newport, Rhode Island

Wednesday afternoon, June 23

I must make this very short to give some people in the audience time to be heard, so I will just set myself up as somewhat of a devil's advocate for a few moments and raise some questions. First of all, I would like to take up Mr. Auburn's presentation. Unless I have misunderstood him, he has joined a small and select company of those who suffer from what I perhaps would like to call the "Bernfeld Syndrome." I think it is generally agreed that the rather extravagant claims that certain groups are making to the effect that the Continental Shelf Convention permits States to go down the slopes of the continental borderlands to the continental rise do not themselves imply further future maritime imperialism into and across the ocean's abyss. I certainly hope not. So I strongly suggest that Mr. Auburn and those who agree with him must discharge a very heavy burden of proof before we need accept such an argument.

Second, let us review briefly two points from Mr. Burdick Brittin's presentation. First, with deep regret, I am forced to question his assertion that the group of the best experts in the world consists of the permanent representatives on the Seabeds Committee. There are, of course, distinguished exceptions to my regretful comment. But, generally speaking, although nothing would please me more than to applaud Mr. Brittin's statement enthusiastically, speaking as one who has laboriously studied the summary record of that Committee, I can only express the wish that the ascribed expertise had been demonstrated in the Summary Record and documentation of the Committee's work.

I am impelled to take a further issue with Mr. Brittin. When he suggested that the services and expertise of the permanent employees of the Secretariat and specialized agencies were available to assist the representatives on the Seabeds Committee, I would like to remind him of the reflexive withdrawals these gentlemen make, possibly rather like those of Dr. Pavlov's dogs in a different context, from engaging in any activity which any delegate from any part of the world can stigmatize as "political."

I would now like to turn to Larry Hargrove's paper and congratulate him on what I think is a very fine offering indeed. My main comment here is that I only wish that the United States delegation had had his subtlety of approach to the problems of handling large and small groups at Geneva in 1958 and 1960. We know, to our misfortune today, that because the United States delegation rode herd too rigorously on its friends to support its received doctrines, we failed in the very important aspect of achieving a basic agreement which could claim general adherence to a fixed territorial sea. The six-plus-six formula was long hailed as, in effect, reflecting the opinion of the Conference. It is very disappointing to note that it failed of acceptance in 1960 by only one vote.

As we look around the world today, we must sadly confess that whether or not it reflected the consensus of the 1960 Conference, the six-plus-six rule is almost as much a matter of antiquarian interest as the old three-mile rule. It is with sorrow, therefore, that I have to express my feeling that if only Mr. Hargrove, or someone with his understanding of the formal processes of politics, had been at the Conference in Geneva in 1960, we would not now be in our present sorry situation regarding the law of the sea. Although Larry Hargrove gave a fine survey, his self-imposed limitation has denied us further insights. Unfortunately time and space permitted him to give us an almost entirely formal review. As I listened I felt that his choosing examples from the law of the sea was quite incidental, since we were being given a general study of the morphology of conferences. Such a survey could have easily been about pollution, or diplomatic immunity, or skyjacking.

I would like to suggest that issues of substance are important in the strategy of any conference. There are many issues of substance which should have been at the forefront of the policy considerations of the United States delegation in the two Law of the Sea Conferences at Geneva in 1958 and 1960. Manipulate the procedures, yes; but I do say that one very important approach to manipulation and to providing leadership and clarity of mind is to stress the issues of substance. There are issues which can invoke ideals. They provide the coin and the currency of leadership. I did have a list of what I have always felt to be the important substantive issues at the 1958 and 1960 Geneva Conferences on the Law of the Sea; but they are too many to outline in the time left. May I point out that there are such issues as freedom of the high seas, the scope and limits of jurisdiction over offshore pollution activities, the feasibility of various forms of regionalism — from conservation organizations oper-

ating through mutual enforcement by the member states to supranational agencies and perhaps even multinational public corporations.

Again, supranational entities could effectively regulate fisheries, deep sea mining, and pollution activities. I would like to point out, however, before I finish this very rapid sprint through some ideas, that a long time ago Professor Gidel, in Madrid in 1952, pointed out that the utilities of a conference were not exhausted by the signing of a convention and the appearance of formal agreement. Rather, at a conference, States can clarify their positions, and the very give-and-take of negotiation that goes on can importantly clarify and bring into the open conflicting viewpoints. Such clarifications and their concomitant exchanges may, in their turn, aid in the development of those general principles of law which necessarily underlie all forms of agreement.

Discussion

Wednesday afternoon, June 23

Auburn: I am very happy to be involved in this discussion with Professor Goldie. As regards the Canadian concession extending to 3,700 meters, I suggest the negotiability can be examined immediately on the spot by asking, if he is present, the gentleman responsible for Canadian law of the sea.

Second, as regards the New Zealand 1,000-meter depth, I have here the Hunt concession according to which Hunt undertakes to pay $77,000 a year plus undertakings to do work. I think that this is certainly a lot of money apart from the other concession on which money has to be spent. In other words, money is going in.

As regards the Australian Act, I did rather hedge myself here because it is not at all clear to what extent Australia is actually insisting on going beyond 4,000 meters. What is clear is that the Bureau of Mineral Resources of Australia is at the moment engaged in a research program on what it calls the continental shelf between 200 and 4,000 meters, which is costing quite a lot of money.

Brittin: In regard to the comment on the expertise of the Seabeds Committee, what I said was that I know of no other group in the world that has the expertise of the delegates who participated in the Seabeds Committee over the past two-and-a-half years. Now, I certainly acknowledge the fact that there undoubtedly are individuals who did not participate in the Seabeds Committee who would be very splendid additions to it. The fact is they did not. So looking at it pragmatically, we go with the very best that we have; and the very best that we have are those representatives who worked all through the arduous period before the UN Resolution was passed in the General Assembly.

In regard to the comment concerning relationships between the specialized agencies and the UN Secretariat, I understood the comment to be that the specialized agencies would be offered as seconding experts to the UN Secretariat Preparatory Committee. I would suggest in addition to the many countries who spoke in favor of doing so at the March meeting of the Preparatory Committee, that Mr. Jackson, representing FAO Fisheries at Geneva, spoke directly in these terms, and the Secretariat of IOC also spoke in terms of very close collaboration.

Beesley: I would like to mention several issues but I will try to be brief. First, on the general question of the "flow of ideas," I think this may be one of the crucial issues. There is of course a direct relevance to the matter of scientific research. I am talking about the flow of ideas generally and the importance of this issue as a general problem which we do not usually hear discussed, although I can gather that it is being discussed today to a certain extent.

I think that the idea of the free flow of ideas between now and 1973 (and in 1973) is important to maintain. The extent to which we do attempt to develop such a flow can have a good deal of effect on our success or failure at the conference. Certainly, it does not happen often enough between different "geographical" groups at the UN. Again and again a group forms a position without discussing its assumptions concerning other groups. Very often these are mistaken assumptions and this prevents possible accommodations. People tend to consult with the friends with whom they usually consult. There is not that free flow of exchange of ideas. Where there is a large committee like the Seabed Committee which works together over a period there is some breaking down of the rigidity of the barriers, but not enough. There is still an instinctive development of attitudes of groups. Similarly, as between government representatives, academics, and industry representatives, I am afraid there is something of the same pattern. There is not enough interchange of ideas. Perhaps because of our relatively smaller community, we in Canada get drawn into such exchanges more easily and we find the results mutually beneficial. Seminars and conferences such as this can be very useful in this process.

We think the flow of ideas should be encouraged and we think also there has to be a flow of ideas between experts of different countries. We have found it to be something of an expense to try to have on our law of the sea delegation fishery experts and offshore mineral experts, but we need them for the specific purpose of exchanging views informally with other delegations, as well as advising us, even when the committee is preoccupied with procedural issues. Experts are not wasting their time if they are exchanging views with their opposite numbers from other countries.

We also think that exchanges of views or information between various agencies within governments are essential. I know this is difficult to achieve but we try. We find it very helpful when we succeed.

On the law of the sea we think that there is such a diversity of interests and such an inter-relationship and complexity of issues and such a variety of options facing the international community that no one State and no one group of States can seek to resolve these issues on the basis of its own judgment or its own judgments of other peoples' interests. We think that there has to be some attempt to seek out accommodations and we think this process has already begun and progress made in the *ad hoc* Seabed Committee and its successor standing committee. We think there is a necessity here to keep open accommodations, not only between conflicting points of view of States, but even between what a State sees as its national interests and the more general interest of the international community as a whole. That may sound like boy scouting. We do not think it is. We think it is common sense, because otherwise we will end up with something which does not sell, and if it does, it will not last.

Now, applying some of this to what we are talking about today and will be talking about during the rest of this conference, we subscribe to the view that it is simplistic to think of one another as either good guys or bad guys on these issues. Sometimes individuals develop personal attachments to positions and sometimes it may even be a case of wrongly held conviction, but differing points of view must be respected. We ourselves find it interesting and amusing sometimes to find that in the eyes of some we may be wearing white hats while in the eyes of others we are wearing black hats. I think it is no secret that we have taken a certain amount of unilateral action and I do not apologize for it. We have learned too well perhaps the lessons taught by others concerning customary law and how it comes into being and is developed by State practice. State practice is the means whereby the territorial sea came into being, and that is how the breadth of the territorial sea has changed from what it used to be—three miles to twelve, as it now is. (We, incidentally, have a 12-mile territorial sea). We simply do not consider unilateral and multilateral approaches to be mutually exclusive. We think people should get rid of their "hang-ups" on this question.

We consider it essential to take a careful look at each problem and attempt to attack it on a functional basis. We are doing that and while we may not yet be having universal success I think you will see a consistency in our policy.

We are all going through an historic period where the whole basis of the law of the sea is going to change. It is changing in a manner similar to what occurred in the 17th and 18th centuries when States were then attempting to determine where their general interests lay, as between narrow belts or wide belts. They came up with a series of decisions which lasted for a long period. We do not think these decisions have too much relevance today.

We think some of the reasoning was sound at the time but the practical considerations are far different today. Our view is that Grotius was an environmentalist, perhaps the first, and if he were here today he would no longer preach the absolute doctrine of the freedom of the high seas. He would be saying let us retain it for commercial purposes, let us qualify it or develop it; let us not turn it into the 11th commandment.

On another issue, I am afraid it is difficult sometimes to know when to defend a position and when not to, because we get into a battle of semantics. I have now heard the term "unilateral" applied to action by several States acting according to the specific terms of a convention to which they are parties. Some people may not like the 1958 Continental Shelf Convention and they may even come up with interpretation of it which is different from ours, but we are parties of the Convention. We have acted in accordance with it and so have Australia and New Zealand. This can hardly be termed "unilateralism."

Turning to another example: our British colleagues have taken action under a convention not yet in force on the grounds that the convention is a declaration of customary law. We do not subscribe to the notion that all unilateral action is equal, but some is more equal than others. We think we should get away from this notion. State practice forms a legitimate part of the decision-making process.

As to the desirable case study or an analytical law concerning what occurred this year in the UN relating to the Third Law of the Sea Conference as outlined by Larry Hargrove, we applaud his efforts, but suspect that almost any analytical approach tends to break down in the final analysis.

As long as we have outlined the issues clearly and so long as we have built up a "pool" of expertise for exchanging ideas across political alignments, then I do not care if you use the analytical approach or the intuitive one. I think that what becomes clear is that there is an interesting basis for an accommodation on all of the issues before us. However, unless the Preparatory Committee on the Law of the Sea seeks new methods and develops new concepts, I do not think we can hope for solutions to these problems. I hope that the Committee will really start getting down to brass tacks and we intend to do just that ourselves.

Herrington: Yesterday a few words were exchanged on a subject of considerable interest to many of the people here, but we recessed before the discussion was completed. Now I would like to go back into this subject, which deals with the principle of abstention. I do not intend to defend it; I intend only to try to explain it. It needs understanding, not defense.

In 1955 the United States and Canada brought this matter to the attention of the Rome Conference on

Conservation of the Living Resources of the Sea, for discussion. I should not be surprised at some occasional misunderstanding of the abstention concept. I had drafted a brief article explaining the principle, with the simple title, "The Principle of Abstention." I took it to a charming young secretary to have it typed for distribution. The young lady glanced at the paper, placed it on her desk, and sat down starting to type; then suddenly she gave it a double take and said, "Wait a minute, wait a minute. 'The Principle of Abstention' —abstention from what?" I assure you that the United States and Canada, in proposing this principle, did not intend to cover the activity which this young lady apparently had in mind.

What is the principle? We proposed this in 1958, at the Law of the Sea Conference, substantially in these terms. "When one country or two or more countries are making full use of a stock of fish to the extent that any increase in fishing intensity would not result in any substantial sustainable increase in yield, another country which had not participated in the fishery should abstain from such participation."

What does this mean? I will give you an example, salmon in the Northwest Pacific. To produce salmon, the coastal States must control pollution. They must not erect dams or other obstructions; or if they do so, they must install effective fishways so that the mature fish can go upstream and the young fish can get downstream. They must strictly regulate their own people to make sure the spawning fish are protected and the young fish are protected in the rivers and estuaries until they go to sea. This may last in some cases two or three years. Then they must patrol the fishermen at sea and in coastal and internal waters to assure that adequate numbers of mature fish of each stock escape to get back to the spawning grounds.

In recent years we have developed a technology through fish hatcheries, and spawning channels in some areas, to increase the production of salmon beyond that which is possible under nature. These measures are difficult and expensive. The coastal States would not be likely to do these things unless they were assured that these fish would come back, that they would not be intercepted at sea by fishermen of other countries.

In the course of the discussions in Geneva in 1958, we approached the delegations of many countries and discussed at some length the abstention concept. I remember particularly meeting with representatives of Australia, New Zealand, India, and Pakistan. There were many others. They discussed the proposal with their delegations and studied it at some length and later came back and said, "We will support it." I discussed it at length with Dr. Pannikar of India. After meeting with his delegation, he came back and said that they had given it their thorough study and had one suggestion. This was, that if a stock fish should spend some time in the coastal waters of another State, it did not seem reasonable to ask that coastal State to abstain from fishing the stock. This would be a bit like having your neighbor's chickens feeding in your garden. In such a case probably you should be entitled to a share of the chickens, perhaps in proportion to the food consumed while they were feeding in your garden. I discussed this with our delegation and with Canada, and it was agreed that a coastal State would not be asked to abstain under these circumstances.

When the abstention principle came to a vote in Committee Three (Fisheries Committee) it received more than a two-thirds vote, as I recall substantially over two-thirds. It was supported by most of the States of Latin America, Africa, and Asia. I think it had a higher percentage of the votes from these areas, from the lesser developed countries, than from the developed countries. However, when we went from the Fishery Committee, with better than two-thirds vote, to the plenary session we got involved in international politics, in the Gulf of Aqaba controversy between Israel and the Arabs. We lost the Arab vote, but still got, as I recall, 57 percent—a strong majority—but less than the two-thirds required, so it was not approved by the Conference. I still think that this principle is useful to the world.

Let us see how it works. In the Eastern North Pacific it has applied for the past 15 or so years to Canada, Japan, and the United States under the North Pacific Fisheries Convention. During this time, production from the stocks of salmon in this area has substantially increased. In the Western Pacific, salmon are fished by Japan, which pioneered salmon fishing in the Western Pacific and has fished them since that time, and the USSR. For one reason or another, no other countries have participated in this fishery, and I do not recall hearing at any time either the Soviet Union or Japan saying or implying that other fishermen would be welcome. I think that one might conclude that in all of the salmon fisheries of the North Pacific we have either *de jure* or *de facto* abstention. Along with this we find the salmon stocks in comparatively good shape, with those of the Eastern Pacific, where we have *de jure* (as well as *de facto*) abstention, generally in better shape than those in the Western Pacific.

Now compare this to the North Atlantic. In many areas of the Eastern and Western North Atlantic the salmon stocks are practically wiped out, and in the others the runs are badly reduced. Under the principle of free entry some eight or ten countries fish these stocks, which under this regime show little sign of recovery toward their maximum sustainable yield. In the last few years an important feeding ground for both North American and European juvenile salmon has been discovered off the west coast of Greenland. Under the principle of free entry a number of countries have begun to fish this area, and the already seriously reduced salmon stocks on both sides of the Atlantic are threatened with further decimation. Why should the countries which produce the young salmon expend further time, money, and enforce protective

measures on their own people, if the salmon can be taken by everyone on the high seas? So, in the long run, who benefits from such free entry?

I think "abstention" would help. A friend of mine in the UK Ministry of Fisheries tells me that they phrase it, "He who sows shall reap." With our present and increasing technical ability to increase the productivity of fish stocks, think what this could mean if applied on a world wide scale, and compare this to what has happened to most exploited fish stocks during the years 1958 to 1970.

I am inclined to conclude that opposition to the concept of abstention in fisheries comes mostly from a lack of understanding. In addition, opposition may be encouraged by some who prefer to reap the harvest sown by others instead of going to the expense of planning and producing a harvest of their own. Or it might be simple inertia. After all, the world has lived with free entry for many centuries.

McIntyre: Alan Beesley, whose eloquence I cannot possibly match, has really saved me the trouble of commenting on Mr. Auburn's remarks about unilateral action being taken by certain countries. It is a fact that we have in Australia been taking some unilateral action, if you wish to call it that. We are not ashamed of it. It is, as Professor Beesley pointed out, perfectly within the scope of the Convention of 1958. I cannot speak with any precision about the enterprise to which Mr. Auburn referred whereby our Department of National Development is responsible for conducting a survey of areas of the deep ocean floor beyond the continental shelf. But I certainly do not think any assumptions should be made about the Australian government's expectations or hopes or intentions arising out of this. As I say, I am not familiar with the details of it. As regards the Australian Submerged Lands Act of 1967, I do not carry in my mind a clear recollection of the map annexed to it—what my friend Professor Mochtar calls our "picture frame"—showing the ocean depths to which the Act applies. I have not seen it for some time. But so far as the extension by the Australian Government of leases for development is concerned, there certainly have not been, to the best of my knowledge, unless very recently, any leases awarded in areas beyond the 200-meter depth line.

If I may, just for one moment, I would like to refer again to words of Mr. Beesley's and come back to Dr. Hargrove's very admirable and valiant effort to project in detail exactly how our program should proceed up to and through the 1973 Conference, if the 1973 Conference takes place in 1973.

An impression that came to me from listening to his remarks was that he foresaw, perhaps right from the beginning of the negotiations, a confrontation between those who want a treaty and those who do not want a treaty. I should have thought myself that the emphasis—and again I am referring to what Mr. Beesley said—ought to be on the tremendous diversity of interest that there is among all countries in so many different aspects of this very complex problem. In other words, rather than talking in terms of those who want a treaty and those who do not want a treaty, I should have thought one ought to talk in terms of the blurring and the overlapping of many diverse interests and policies as the main complication in the whole process of searching for agreement. I should have thought this is the essence of the problem, rather than any gulf between those who want a treaty and those who do not, the good guys and the bad guys. We need to keep in our minds the whole time, and I sought to make this point on Monday, that in respect of perhaps no other issue facing the international community is there such a diversity of opinion, to the point where I believe myself no two countries can be said to have interests that are absolutely identical.

Solomon: We diplomats are not as unduly sensitive as we sometimes appear to be, but I think it is important to explain our point of view because the members of the Seabeds Committee are invited to participate along with members of the academic community, the legal community, the Defense Department, scientists, and so on, in a very valuable exercise. We welcome these contacts, but I do not think we are going to get the maximum benefit from our contacts if our positions are not fully understood. We were criticized in the very first speech made on Monday morning by Dr. Brown. If one accepts what he had to say, one would come to the conclusion that we are a bunch of incompetents who do not know how to approach our problems, and never did know the importance of the seabed question. Then today we have some very minor criticisms about procedural questions. Let me explain them.

The Seabeds Committee is not a body of experts. We are not legal experts. If we were, then Dr. Brown could examine our speeches and perhaps evaluate them and monitor them. Nor are we fishing experts. We are in fact a bunch of diplomats, *cum* politicians. We are advised in our work by the experts, and our work is conditioned by the fact that, as Dr. Evensen explained on Monday afternoon, we are directed at almost every stage by our government—and governments are run by politicians. In fact, the Seabeds Committee is an offshoot of the First or Political Committee of the General Assembly of the United Nations. It is a political body, and its activities are properly formed by political philosophies. Someone said that we are too large a Committee. That may be so. When this special seabeds issue first arose, we created the Ad Hoc Committee which was much smaller than the present Committee, and even after this Committee was formed many people who today are urging quick action did not in the beginning have any real idea of its importance. They are now aware of it and want to get into the act.

We have been criticized for not forming working groups and for spending too much time on procedural matters. That is not altogether unfounded, but again

I should state that people who criticized us for procedural delays are unaware that the members of the Committee are in fact fighting the battles of 1973 in 1970 and 1971. It may not seem important to some people whether the question of limits be discussed in Committee I, which deals with the regime, or Committee II, which deals with all the other aspects of delimitation; but it is important to understand that many countries will accept no regime unless they know the limits of the area to which it will apply, and there are other countries which are reluctant to have limits defined until they know the regime which will govern the area.

The question of the working groups again is important. It is a matter which has been discussed back and forth among ourselves in great detail. But it is clear to those of us who sit on the Committee that we cannot possibly appoint working groups until we have some idea of how people are thinking on the issue before them. We cannot deal with any aspect of the seabed question without knowing how we are going to crystallize our ideas. Perhaps working groups could be appointed in a week or two, but you cannot appoint the working groups before you discuss and get some idea as to the measure of agreement which can be achieved. I raise these points not because of any sensitivity on our part, but because we would like our consultations at this conference to be beneficial to all of us, and not merely made an excuse for exchanging criticisms.

A Suggested Approach to Solving Some of the Problems of Marine Jurisdiction

Cyrus Hamlin, Ocean Research Corporation, Kennebunkport, Maine

Wednesday afternoon, June 23

Until recently the seas of the world formed a two-dimensional system, and the problems affecting them were also largely two-dimensional and hence relatively simple of solution. With the development of submarines, personnel deep diving gear, and ocean drilling technology, Man's involvement in the marine environment has expanded to three dimensions, as suggested by the popular term "inner space."

We must now take into consideration a fourth dimension—time. Over the past few years a casual study of marine news has indicated to me that the time flow of conflicts and differences of value judgments relating to the oceans is much more rapid than is the time flow of the solution-finding processes. If the rate of problem-solving is not accelerated to something more closely approaching the rate at which problems are generated, then it seems inevitable that chaos will ensue, with possible results which strain the imagination.

The urgency of the situation calls for an acceleration of constructive and substantive action. Deliberative gatherings such as this are essential for reaching for sound and lasting conclusions, but there is now a need for positive action programs. A sense of this need generated the proposal which follows.

I propose that a series of discussions be held with the sole aim of submitting a positive proposal to the 1973 United Nations Conference on the Law of the Sea for establishing a caretaker system for the Gulf of Maine on a trial basis.

A schedule is suggested below covering a series of meetings which would be so laid out as to have ready by the end of 1972 a concrete proposal for a pilot program for presentation to the 1973 Conference.

September, 1971—An organizational meeting of 12 to 15 representatives from the U. S. and Canada. The representatives should be carefully selected not so much for expertise in specific fields, as for ability to establish a sound organizational framework for future action. They should also, however, be sufficiently familiar with the problems which must be resolved to construct a sensible skeleton for the pilot program. This skeleton would provide a point of departure for subsequent meetings.

January, 1972—The first formal convention. This would perhaps be by invitation, but not completely exclusive. Its task would be to (1) flesh out the skeleton with the details of a tentative proposal, and (2) lay out activities and tasks for subgroups for further study of various aspects of the proposal in preparation for the next convention.

October, 1972—Second formal convention. For final consideration and approval of the pilot program for submission to the 1973 Conference, and for setting up the procedures and people for making the presentation.

There would undoubtedly be major conferences other than those noted in the schedule, and innumerable minor meetings and discussions. However, the suggested conventions as scheduled would provide a time frame to assure making the 1973 deadline if that is humanly possible.

The proposed negotiations must tackle many knotty questions—such as the rights of nations, both marine and non-marine, on, in, and below the sea, how to fit a new approach into traditional concepts, and the methods of enforcement—in the search for a workable proposal. It would be easy to say that the obstacles to success are insurmountable. Yet if we accept the premise that this type of international control of the seas can and will come at some time in the future, then we must agree that it is not too late to get started on it right now.

As a resident of Maine, I am open to the charge of Mainiac Chauvinism in suggesting the Gulf of Maine as a test site, but there are also excellent objective reasons for the choice.

For one thing, the known resources of the Gulf of Maine are already under extreme pressure, and future exploitation of presently unknown resources will only exacerbate the problem.

Further, there is a growing need for resource propagation and husbandry (call it aquaculture or mariculture) for which the Gulf of Maine appears very well suited. Yet this potential cannot become a reality until adequate protection exists for investors in this costly and long-term field.

Finally, and perhaps most important, the Gulf of Maine contains a boundary between two countries, Canada and the United States, which have a long history of friendly and constructive cooperation. This circumstance will bring international factors into the pilot program without the friction and abrasiveness which so often characterizes international efforts.

I have listened with great interest to the speakers and panelists today. There is no serious conflict between the points they have mentioned—whether defining existing and future problems or outlining the mechanisms of negotiation—and this proposal. At most, some reshaping may be required to accommodate it to the forms of the 1973 Conference.

Although the reaction of the people to this proposal has been very encouraging—a dozen or so people knowledgeable about the marine environment have been contacted—one objection has been made. That is that negotiating this pilot program would upset the United States/Canadian negotiations towards establishing their joint boundary in the Gulf of Maine.

It would certainly be undesirable to jeopardize progress on this or any other subject of international discussion. However, there is no reason that the proposal could not include provisions specifically exempting such delicate current questions from the pilot program.

In fact, one of the advantages of the proposal is that as a test it affords the greatest flexibility in setting up its provisions. Affecting a relatively small area for a limited period of time, there is not the dreadful finality which characterizes international agreements and which must certainly have a negative affect on the introduction of innovations and the speed with which action is taken.

A proposal such as this requires a sponsoring agent, if only to convene the first formal organizational group. It would be fine if the Law of the Sea Institute would accept this initiative.

THE PROSPECTS FOR AGREEMENT

Panel: The Prospects for Agreement

Dr. E. E. Seaton, Tanzania Mission to the United Nations

Thursday morning, June 24

It is suggested by some who attended the Second Law of the Sea Conference (the present writer did not attend) that its failure was due in part to Machiavellian tactics of the USSR, and in part to the obduracy of some of the Latin Americans or to their demanding too high a price for withholding their opposition to a narrow territorial sea and fishing zone. However, the more fundamental reason for the Second Conference's failure may be the narrowness of its terms of reference. It was limited to the two specific questions of breadth of the territorial sea and fishery limits. Had the Second Conference had as wide a mandate as the First, i.e., had it been able to consider all the laws relating to the various uses of the sea, it might have achieved better results. The Third Law of the Sea Conference need not make the same limitation as the Second. It may, if it desires, include in the list of subjects or issues to be reviewed—other than the regime for the area of the seabed and ocean floor beyond the limits of national jurisdiction and its resources—the continental shelf, fisheries, territorial seas, straits, uninhabited and artificial islands and any other matters which it may seem necessary or desirable to do. This does not mean that the already established law (conventional or customary, as the case may be) relating to these other subjects *must* be revised. It does provide a better opportunity for arriving at a balance of conflicting interests which will result in a compromise that might be widely acceptable.

INTERNATIONAL REGIME FOR THE SEABED AND OCEAN FLOOR

Some States approach the Third Law of the Sea Conference from the standpoint that there is need only for agreement to be reached on the issues left unresolved by the last two Conferences, particularly on the questions of breadth of the territorial sea and fisheries. This for example is the attitude of some countries that have adhered to the four 1958 Geneva Conventions.

Other States approach the Third Conference from another standpoint; only if agreement is reached on a regime, and particularly on the question of its structure, powers and the physical area of jurisdiction, can there be any possibility of success in establishing a uniform breadth of territorial sea and fishery zones. Some Third World States, for example, have adopted this approach.

Then there is the point of view that one must first settle all outstanding questions of limits, i.e. of the territorial sea, of fishery zones and of the area of seabed to be placed under international jurisdiction, before one can usefully discuss the nature of an international regime to be established. Several Western European and other countries share this view.

Hence has arisen the question of "priorities," which has dogged the meetings of the present expanded UN Seabed Committee as it had its predecessor. To a certain extent, the question is a real one, in the sense that one should work in the most rational manner possible, not haphazardly. There is obviously a way of beginning discussion of the problems of the law of the sea which is more rational than others, hence one should seek and follow such a way. But it can also be said that the various points of view represent defensive procedural tactics designed to prevent any one group of States from winning advantages without granting reciprocal concessions.

Since this is the case and politics is the art of the possible rather than the logical, one may recall the story of the centipede related by President Nyerere at the 1964 OAU Heads of State meeting. Said the centipede to its mother: "I have so many legs. Which one should I put forward first in order to walk?" Replied his mother: "Move, child. Just move." The same reply may well have to be given on the question of "priorities." The important thing is to get moving; the

questions all have to be discussed and settled and they should be dealt with as and when they arise.

The key issues of the regime, besides its limits, are its structure and powers. Some Western European countries tend to favor a weak regime, in the sense that its functions are those of coordinating and recording. At the same time, they would like to ensure that States possessing expertise and maritime strength are given weighted voting powers or privileges somewhat as they possess in the Security Council and in some specialized agencies. On the other hand, several Afro-Asians have expressed themselves in favor of a strong regime, possessing comprehensive powers of supervision and regulation and the right of direct exploitation of the resources of the area. Further, the smaller countries oppose the idea of a replica of Security Council-type veto powers being possessed by any State or group of States.

Opinions vary as to the best type of management machinery, whether by a corporation-type executive or a politcial bureau type. The decision on this question undoubtedly will determine the efficiency with which the regime would be able to operate, but another factor for consideration is the degree to which the regime is able to satisfy the expectation of the developing countries for substantial contributions to their welfare.

Whether the regime is an integral part of the United Nations family or is outside of, but allied to the UN, is seems destined to become one of the most important institutions of the coming century. As mankind moves on to a more careful use of the physical environment, dictated as much by the world's exploding population as by the dwindling of sources of energy and power, the sea and its resources will become increasingly important. Men and women may spend as much time in the future under the sea and in the skies as they now spend on land. Major conflicts over land territory are likely to become increasingly rare. If such conflicts over ocean space are to be avoided, the nations of the world must surrender much of their present sovereign rights or exclusive national jurisdictions. There is no room to doubt that the choice is between an international regime and a return to the kind of scramble of the old colonialist era. There are signs that the world now is much wiser and more just than to opt for the second alternative.

FISHERIES

The 1958 Convention on Fishing and Conservation of Living Resources of the High Seas has secured the acceptance of some Western European (and other) States with highly developed distant-water fishing industries (e.g., United States, United Kingdom and Spain) and other States in various parts of the world. It has not secured that of three of the most important distant-water fishing States (Norway, Japan and the USSR), nor has the Convention secured the acceptance of States with highly developed coastal fishing industries in Latin America (Peru, Chile) or Africa (Ghana, Morocco). Thus discussion to arrive at an acceptable solution must involve more than the question of fishery limits.

The Convention on Fishing and Conservation of the Living Resources of the High Seas recognized in Article 6(i) a "special interest" of coastal States "in the maintenance of the productivity of the living resources in any area of the high seas adjacent to its territorial sea." Further, Article 7 provides for the right of the coastal State to adopt unilateral measures of conservation under certain circumstances and subject to the special commission provided for in the Convention. However, the Convention stopped short of giving exclusive or even preferential rights to the coastal State; on the contrary, under Article 7 (2) (e) one of the requirements which conservation measures adopted by it must fulfill is "that such measures do not discriminate against foreign fishermen." An acceptable formula must be found which will include not only coastal States' "special interest" in the maintenance of productivity and conservation but also preferential, if not exclusive rights of the coastal States, as well as allowing periods of adjustment, if necessary, for distant fishing States who may be faced with substantial loss of previously enjoyed fishing opportunities.

TERRITORIAL SEA

At the time of the Second Law of the Sea Conference, the majority of States apparently claimed less than 12-mile territorial sea limits.

A joint U. S.-Canadian proposal which would have fixed a maximum breadth of the territorial sea at 6 miles from the applicable baseline and a contiguous fishing zone extending up to a maximum of 12 miles failed by one vote to gain the two-thirds majority required for adoption.

If the U. S.-Canadian proposal had been adopted after just succeeding in obtaining a two-thirds majority, it may have had to face the determined opposition of the more than one-third who either opposed during the voting or abstained. It may be presumed that the Third Conference on the Law of the Sea will try to ensure by its Rules of Procedure that decisions of the Conference are approved by sufficient majorities as to ensure that any resulting Convention receives substantial acceptance.

During the Second Law of the Sea Conference, a proposal for a 12-mile maximum territorial sea limit that was linked with exclusive fishing rights up to a limit of 12 miles, whatever the breadth of territorial sea adopted by the coastal State, failed to win a majority in the Committee of the Whole. Co-sponsored by 16 Afro-Asian Powers, together with Mexico and Venezuela, it reportedly had the tacit support of the Soviet bloc.

Since 1960, not only have the Afro-Asian and Latin American group of States swelled greatly but most of the States within these regions have adopted 12 miles

or more as territorial sea limits. Further, some of these "Third World" States have established contiguous fishing zones of 100 to 200 miles, within which are applied preferential or conservation rights, a type of protective action similar to that which has recently been taken by Canada in respect of pollution and potentially of fishing also.

On the other hand, the Soviet Union which at the Second Law of the Sea Conference opposed the U. S.-Canadian proposal for a narrow territorial sea limit (6 miles) and favored the wider limit (12 miles) now finds itself favoring the narrowest maximum likely to gain any support at the Third Law of the Sea Conference. Although many of the Western European countries maintain the "traditional" three-mile territorial sea limit, it is likely that at the next Conference, a proposal for a 12-mile territorial sea limit that is jointly put forward by the U. S. and USSR (tacitly or openly) will have solid NATO and Warsaw Pact States support. Presumably a number of Afro-Asian States will support the USSR on this 12-mile limit proposal as they did at the last Conference. One may thus foresee a solid Europe and a shattered Africa and Asia on the proposal for a 12-mile territorial sea. What of Latin America? Here again there may be some shattering but perhaps less than in the other continents of the Third World.

Probably, however, despite such shattering, there will remain enough Third World solidarity to enable at least a blocking minority to prevent adoption of a 12-mile territorial sea limit unless an acceptable compromise is reached on the other major issues, i.e. exclusive or preferential rights for coastal States in a contiguous fishing zone and the powers, functions and limits of the international regime to be established for the seabed and ocean floor.

STRAITS, ARCHIPELAGOES AND INNOCENT PASSAGE

Over the past few centuries there has developed the doctrine of the freedom of the high seas. This means that in principle the high seas are open and free for the use of all people. The major benefit of this principle is that it makes possible the use of the high seas for communication and particularly for transportation of passengers and goods, without which trade and commerce would be impossible. But the unrestricted application of this principle becomes impossible in wartime lest either side gain undue advantage over the other. Hence there is a generally accepted exception to the freedom of the seas principle that each State may designate an area of the high seas adjacent to its coast through which the passage of ships is prohibited save for innocent passage. The difficulty has arisen in defining "innocent passage," i.e., establishing the scope of the exception to the principle of the right of free passage on the high seas.

During the Second Law of the Sea Conference, a proposal by Ghana, which included a requirement of notification to the coastal State of the passage of warships, was voluntarily withdrawn, apparently to facilitate compromise on the other major problems of territorial seas and fishery limits. Thereafter Ghana and the other three African States present, i.e., Ethiopia, Liberia and Cameroon, voted for the joint U.S.-Canadian proposal. India, however, voted against the joint proposal, apparently because its Government insisted that warships should not be allowed to traverse either the territorial sea or the exclusive fishing zone without prior authority from the coastal State. It may be assumed that the other Afro-Asian States who voted with India against the joint U.S.-Canada proposal, as well as the Socialist States of Europe, shared India's views regarding authorization of foreign warships through territorial seas.

As adopted, the 1958 Convention on the territorial sea provides in Article 14(4) for innocent passage through territorial waters for vessels of all States, the passage being innocent as long as it is "not prejudicial to the peace, good order or security of the coastal State." A special requirement for submarines is provided in Article 14(6); they are required to navigate on the surface and to show their flag when passing through territorial waters. It is possible to argue that the omission in the Geneva Convention of the requirement of authorization for innocent passage of foreign military vessels leaves it open for a coastal State to require permission from its Government as a condition for passage. Apparently this is the contention of the People's Republic of China in justifying Paragraph 3 of its 1958 Declaration on China's territorial sea. On the other hand, others argue that the special requirement regarding submarines indicates a general establishment of the right of innocent passage for all other ships without notification or authorization.

The problem will become of crucial importance during the Third Law of the Sea Conference when the questions of international straits and archipelagoes are discussed. If a territorial sea limit of 12 miles or more is accepted as the uniform rule, the number of straits which would become "inland" or "internal" waters would be approximately doubled. The great naval powers will wish to ensure freedom of movement of their fleets into and out of the world's oceans and seas while small countries will wish to prevent as well as they can encroachments by foreign warships in the waters adjacent to their coasts.

Also, if the claims of Indonesia and Philippines are allowed, vast areas of the ocean will be "inland" or "internal" waters. These areas include several straits. The Indonesia/Philippines claims are based on the "archipelago" concept accepted by the International Court of Justice in the *Fisheries Case* (1951) as a valid basis for the drawing by Norway of baselines for the purpose of establishing the outer limits of its territorial sea. Some would distinguish the claims of Norway and Iceland, which are based on coastal islands forming an archipelago adjacent to their mainlands, from the claims of Indonesia and the Philippines, whose

entire land territories consist of chains of islands. Important in this connection will be the views of Afro-Asian countries.[1] Presumably, if the claims of Indonesia and the Philippines are admitted, so must be that of Fiji. The People's Republic of China has indicated that it applies the straight baseline method used by Norway and Iceland for delimiting its territorial sea, thus including the seas surrounding a number of its coastal islands as "inland waters."[2]

THE CONTINENTAL SHELF

At the time of the First Law of the Sea Conference, insufficiency of technical knowledge regarding the sea-bed and ocean floor inhibited consideration of the basic problems involved. The distinguished Japanese Professor Shigeru Oda commented in 1959:

> It has become possible, economically and technically, to exploit the resources in the submerged land in some parts of the world. As yet there has arisen no concrete conflict as regards the exploitation of submerged mineral resources, as apart from the fishing of marine products. There was no urgent necessity that the submarine areas should be divided among the Coastal States. Nevertheless, a number of States have made claims to the submerged land lying off their coasts, which would have the effect that the resources contained in such areas would be exclusively reserved for their own use. The International Law Commission's text was drafted so as to enact these claims into a general rule.[3]

The view that the International Law Commission's draft regime of the continental shelf should be more thoroughly considered by the 1960 Conference in its fundamental implications was apparently held not only by Japan but by West Germany, France, Belgium, Italy and the Netherlands, which voted in the Committee of the Whole against the expansion of the rights of the coastal States. However, the proposal that the continental shelf should extend to the depth of 200 meters, or beyond that limit, to include areas within which the depth of the superjacent waters would admit the exploitation of natural resources, was adopted by the Conference and eventually became Article 1 of the 1958 Convention on the Continental Shelf. Besides Japan, Sweden, Greece and West Germany strove to confine the right of monopoly of the coastal States to the exploitation of the mineral resources of the continental shelf. However, the Conference rejected the Greek proposal that would have exempted sedentary fisheries from the exclusive or sovereign jurisdiction of the coastal State. Article (24) of the Convention on the Continental Shelf was eventually adopted by the Conference providing that the "natural resources" over which the coastal State exercises sovereignty include "organisms which at the harvestable stage, either are immobile on or under the sea or are unable to move except in constant physical contact with the sea-bed or the subsoil."

Among the 14 opponents of this latter provision at the Conference, Japan, Greece and West Germany have not yet become a party to the Convention which came into force 10th June 1964. The 46 States which are parties to the Convention include several with very wide continental shelves, as therein defined. However, some of the other States which are parties have no continental shelves at all, being landlocked.

The lack of precision in the provisions of the 1958 Continental Shelf Convention has led, in the case of sedentary fisheries, to a number of conflicts between fishermen of different nationalities claiming to exercise monopolistic rights for coastal fishing or the freedom of the seas for distant-water fishing. In the case of mineral resources, it has led to expanding claims that would include under the sovereign or exclusive jurisdiction of the coastal States, the resources of the entire submerged continental land mass. The justification for these claims is said to be geological, i.e., that the identical geological rock structure of the continental slope and subsoil make it "a natural prolongation" of the continent and therefore under the exclusive jurisdiction of the coastal nations[4]. However, it has been pointed out that if such a premise is accepted, all countries of the continent should have the right to a share, not only those that are situated on the coast.[5]

While most international lawyers would agree that the "depth plus exploitability" criteria of the Continental Shelf Convention are not so clear as to avoid conflicts of interpretation, opinions differ as to the best means of resolving the problem. One suggested method by the American Bar Association in the Joint Report of Sections of Natural Resources Law, International and Comparative Law, and the Standing Committee on Peace through the United Nations is:

> . . . unilateral but concerted declarations by like-minded maritime States announcing their intent to observe a particular limit as to the boundary of their shelves under the 1958 Convention and to decline recognition of any claim by other States to a greater limit.[6]

A rather similar suggestion by the National Petroleum Council in its Report to the U.S. Secretary of the Interior, *Petroleum Resources under the Ocean Floor* is:

[1] The Asian-African Legal Consultative Committee discussed the "Archipelago" concept at its January, 1971 meeting at Colombo but did not have time to reach conclusions on the matter.

[2] Paragraph 2 of the Declaration on China's Territorial Sea (1958).

[3] "Japan and the U. N. Conference on the Law of the Sea," *The Japanese Annual of International Law*, No. 3 (1959), p. 83.

[4] Professor R. Y. Jennings, "The Limits of Continental Shelf Jurisdiction: Some Possible Implications of the North Sea Case Judgment," *International and Comparative Law Quarterly*, Vol. 18 (1969), p. 819.

[5] Juraj, Andrassy, *International Law and the Resources of the Sea* (1970), p. 172.

[6] Cited in *Report by the Special Sub-Committee on Outer Continental Shelf to the Committee on Interior and Insular Affairs*, U. S. Senate, (1970), p. 8.

> . . . that the parties to the 1958 Convention, with such additional nations as may join them, promulgate uniform declarations stating the extent of their claims and the limits thereon under the Convention.[7]

What might be expected, were such suggestions to be followed, are retaliatory unilateral or concerted declarations extending territorial sea or fishery limits by coastal States with narrow continental shelves. The double standard applied by some States towards unilateral claims regarding the continental shelf and similar claims regarding other areas of the ocean space bedevilled the First and Second Law of the Sea Conferences and would undoubtedly threaten the success of the Third Conference.

The attitude of the People's Republic of China towards the continental shelf is unknown. Regarding the breadth of the territorial sea, its position has been laid down in "Declaration on China's Territorial Sea" of September 4, 1958. Paragraph 1 of the Declaration states that:

> The breadth of the territorial sea of the People's Republic of China shall be 12 nautical miles. This provision applies to all the territories of the People's Republic of China, including the Chinese mainland and its coastal islands, as well as Taiwan and its surrounding islands. . .[8]

Unlike some other Great Powers, China maintains that each nation is free to determine its territorial limits because there has never been any universally recognized breadth of the territorial sea under international law. Its support was expressed for Ecuador in its "mini-war" with the U. S. over intrusion of foreign fishing vessels into the exclusive fishing zone claimed by Ecuador of 200 miles.

It would be a great tragedy were the scheduled 1973 Conference on the Law of the Sea to fail to reach agreement on all the major problems of the area. But it could not be considered a victory were such agreement achieved by a combination of arm-twisting and lobbying that produced a temporary majority of two-thirds or any other numerical proportion that is decided upon. For the experience of the four 1958 Geneva Conventions on the Law of the Sea demonstrates that even a two-thirds majority at the Conference does not necessarily entail acceptance of the agreements concluded. More than a decade after their negotiations, they remain unadhered to by more than half of those States which participated in the 1958 Conference. Either several of those States that voted for the agreements did so merely to "follow along" and not because their assent was consciously given or there were second and more profound thoughts in their home capitals.

What is desired to be achieved at the Third Law of the Sea Conference is a genuine settlement which will result in an international regime for the seabed and ocean floor as well as an end to ambiguities and conflicts in other areas of the ocean space. Such a settlement should be embodied in one or more Conventions which might secure universal acceptance and participation and be brought into force almost immediately. This can be achieved if all parties are willing to show as much consideration for the economic, security and other interests of other States as they expect for their own.

[7] *Ibid.*

[8] *Peking Review*, No. 28 (Sept. 9, 1958), p. 21.

Riyadh al-Qaysi, Mission of Iraq to the United Nations

Thursday morning, June 24

The desired Conference of the Law of the Sea is the body which, it is hoped, will, for the members of the international community, develop fresh rules of conduct that can reasonably and equitably accommodate the maritime claims of States.

It is not untrue to assert that a rule of law is a behavioral norm representing a certain balance between a variety of conflicting interests at a certain stage of human development. Whether this balance is morally just or unjust, whether it is economically sound or not, whether it is politically popular or imposed, are relative judgments of which time and place are the constituent elements. The law of the sea is no exception, as I am sure you are all aware, for it was created and has been perpetuated to further the interests of those maritime nations powerful enough to shape it.

Need I recall how Grotius' *Mare Liberum* and Selden's *Mare Clausum* were conceived and eventually born and fostered? Since that distant past, the conflicting claims of the maritime powers have evolved and transformed to take the shape of so-called "deep-rooted" concepts of law, despite the fact that life is dynamic and law cannot afford to lag behind in a static form. Now we are called upon once again to look into these concepts. For although not very long ago the monumental Geneva codification was achieved, we find ourselves again facing a very simple truth, namely, that the more man discovers through his persistent endeavors in science and technology, the more our present-day behavioral norms require revisions, adjustments, and even change in order to establish a more reasonable and equitable balance between the conflicting interests in a manner which would constitute a viable and realistic foundation for international co-operation.

Now, the question which we are asked to answer is whether we can attain agreement on the reasonable and equitable balance between the conflicting interests. To answer this question effectively, that is to say to decide upon the "Prospects for Agreement," it is necessary, first, to identify the opposing contentions; second, to analyze their underlying bases in terms of the

interests these contentions represent; and, finally, to envisage legal formulae that can reasonably and equitably strike the balance between the conflicting interests. This is, indeed, a very difficult task to perform in the limited time allowed for us. Consequently, allow me to ask your indulgence to be content with a much more modest approach to a general assessment of the major issues, in the hope of providing a framework for action that in my opinion might lead us to agreement.

EXPLORATION AND EXPLOITATION OF THE SEABED AND OCEAN FLOOR BEYOND THE LIMITS OF NATIONAL JURISDICTION

The Declaration of Principles Governing the Seabed and Ocean Floor and the Subsoil Thereof Beyond the Limits of National Jurisdiction embodied in General Assembly Resolution 2749(XXV) of December 17, 1970 was, as we are all aware, the end result of three years of persistent efforts that were set in motion ever since the eyes of the world were opened to the vista of joint endeavors among all nations to explore and exploit a common heritage for the benefit of all. The basic principles contained in the Declaration were accepted as a compromise by an overwhelming majority of 108 votes in favor, and none against, with 14 abstentions. Yet it is unfortunate to see that certain quarters still adopt an attitude of philosophical resentment and minimization of the juridical value of the Declaration. Indeed, undue formalistic juridical evaluation could inhibit progress towards agreement. The Declaration, with the solid support behind it, represents the collective political will of the vast majority of nations. It is an embodiment of fundamental principles that should be faithfully reflected in any future agreement, and not mere guidelines. In fact, some representatives of the highest diplomatic and legal calibre emphasized, during the last March's Session of the Seabeds Committee in Geneva, the unequivocal juridical value of the Declaration.[1]

Is it after all proper, it may be wondered, to accuse developing countries of obstructionism? It had been very well-known during the process of negotiating the Declaration that it was eventually heading to be born in the form of a resolution of the General Assembly. To come and say, after long and arduous give-and-take negotiations, that the Declaration is nothing but a mere recommendation that carries no binding effect is obstruction clear and simple that developing nations, as their record shows, bear no responsibility for. Not only that; such an attitude undermines good faith, arouses suspicions in relation to the implementation of any compromise agreement that might be achieved in the future, and needless to say it will definitely hamper steady progress towards the very attainment of that agreement.

So much for these general remarks about a conflict touching upon the juridical value of the Declaration; permit me now to deal with one aspect of it.

Obviously, the determination of the area of the seabed and ocean floor beyond the limits of national jurisdiction can only be achieved through setting up definite limits upon the area that lies within national jurisdiction. For, it is where the national jurisdiction ends that the international jurisdiction begins. This is a very difficult and sensitive issue.[2] To begin with, there is an organic and complex interrelationship between the ultimate definition of the limits of national jurisdiction and the nature of the international regime—including the international machinery—to be established for governing the area beyond these limits. In this connection, state interests diametrically clash in pursuance to their stage of economic and technological advancement.

Generally speaking, the developing countries put the

[1]The representative of Mexico, Mr. Castaneda, had this to say: "Those fifteen Principles (of the Declaration) should constitute the very basis of the seabed regime. . . . Because of the overwhelming support expressed for it the Declaration could be considered as a sort of informal agreement between the members of the international community. It provided . . . a legal basis for considering thenceforth as illegal any unilateral act on the part of a State purporting to appropriate the resources of the seabed and the ocean floor, or to claim any form of sovereignty thereover." (United Nations document A/AC.138/SR.58, at pp. 3-4.)

Ambassador Yasseen of Iraq regarded the Declaration as "More than a mere recommendation," that "it had already affected positive law," and that in view of paragraphs (1) and (2) of the said document the basis of out-moded customary rules was destroyed in spite of reservations expressed by certain States to the contrary. (United Nations document A/AC.138/SR.55 at p. 8.)

Ambassador Amerasinghe of Ceylon thought that the Declaration "marked the completion of the first stage in the formulation of new international law in a new domain." See United Nations document A/AC.138/SR.45, p. 6. Mr. Stevenson of the United States of America said: "More important, when the General Assembly had adopted its Declaration of Principles at its twenty-fifth session, it had established a common foundation on which to build." See United Nations document A/AC.138/SR.51, at p. 7.

It is also helpful to recall at this juncture the statement of Judge Sir Hersch Lauterpacht in the Advisory Opinion on South-West Africa—Voting Procedure, of June 7, 1955. After stating the principle that the resolutions of the General Assembly are not legally binding upon Member States of the United Nations, except in certain organizational and election matters, Judge Lauterpacht stated:

"Whatever may be the content of the recommendation and whatever may be the nature and the circumstances of the majority by which it has been reached, it is nevertheless a legal act of the principal organ of the United Nations which Members of the United Nations are under a duty to treat with a degree of respect appropriate to a resolution of the General Assembly."

This statement was relied upon by Mr. Liang, the Chinese Representative, in the general debate of the First Committee of the General Assembly during the 25th Sssion, obviously to show that the juridical value of the Declaration could not be lightly dismissed. See United Nations document A/C.1/PV.-1785, pp. 35-36.

[2]Indeed, this issue was at the root of much of the controversy in the debates of the First Committee during the last session of the General Assembly. The precise definition of the internationalized area still remains one of the outstanding questions which the Seabed Committee could not, during its last March Session, agree upon its allocation to one of its three sub-committees, and left the matter to be settled during the coming summer session.

emphasis on the type of the regime and machinery to be established. They feel that agreement on a strong and effective organization that offers them a reasonable prospect of real benefit might facilitate support for relatively narrow limits of national jurisdiction. If the opposite holds true, then recognition of much wider limits of national jurisdiction to coastal States becomes necessary to allow them the maximum opportunity for exploitation. Developed countries, on the other hand, feel that the first step should be in the direction of defining the limits of national jurisdiction, for unless this is done the internationalized area would not emerge, and thus it would be impossible to devise the regime and machinery to govern it. Actually, what lies at the root of the developed countries' approach in this connection is what they visualize as the "disturbing" phenomenon of "unilateral extension of jurisdiction."

This is indeed, a very wide issue that permeates the entire development process of the law of the sea during the last two decades or so. It is a question that generated, and continues to generate, much political, economic, and legal action and reaction. Unfortunately, time does not permit me to penetrate deeply into this intricate area. Suffice it to observe briefly that a trend towards extension of national jurisdiction has been set in motion, the magnitude of which seems to shake the foundations of traditional concepts. Sacrosanct narrow limits of the past have been replaced by wider limits for a variety of purposes. Irrespective of the widths, any objective attempt to evaluate the reasonableness of these unilateral claims must of necessity proceed in terms of their underlying basis. Economic considerations loom very large in this respect, and it would be very naive indeed to think that those claims have been tendered out of adamant disrespect of the law.

To be sure, throughout the development of the law of the sea, we have moved from few simple, clear-cut, and independent jurisdictional limits, to a multitude of mutually interdependent ones. This was by no means an arbitrary movement, for the law has been responding to the realities of the needs of the international community. Now, the realities have changed. The developed nations, the traditional maritime powers, rely on the traditional concepts of the law to preserve as much "a-free-horizon-for-all" as possible, for only thus are their economic interests adequately served, particularly in view of the immense maritime technology and capital they possess which would leave no room for competition for less developed States. On the other side of the spectrum, there are those States which, striving to develop their economies in response to urgent social needs, feel themselves entitled to establish the limits of their maritime jurisdiction unilaterally, especially when their interests are being compromised through lack of responsive accommodation on the part of those technologically advanced maritime powers.

Which approach should we adopt? Allow me, before pronouncing judgment, to give you an illustration of how at times one's trains of thought may end up with an inherent inconsistency. In the First Committee's debate during the last session of the General Assembly Senator Pell, speaking for the United States, had this to say:

> Some countries have recently made new claims of national jurisdiction over the oceans which have the effect of reducing the area of the oceans beyond the limits of national jurisdiction by a great many thousands of square miles. These claims, if they expand and proliferate, would remove from any international regime vast areas of these ocean beds that may well contain the most valuable, and certainly the most easily exploitable, sources of wealth.[3]

The thrust of this statement is very clear: it is that developing nations should either abandon, or disassociate themselves from, any policy of unilateral extension of jurisdiction in order to preserve the maximum limits possible for the domain of international jurisdiction, a domain the resources of which would be exploited for the benefit of mankind as a whole taking into particular consideration the interests and needs of the developing countries. In other words, developing countries need not unilaterally extend their national jurisdiction for economic reasons, since a major portion of the economic benefits of seabed exploitation in the international area would accrue to them, and so those nations should strive to expand the area of international, rather than the national, jurisdiction. But in the same statement, and to be exact on the basis of the record of the meeting in one paragraph earlier, Senator Pell said the following:

> There are many unknowns in this equation. We do not know just how valuable these untapped resources may prove to be, though it is certain that they are extensive. We do not know precisely what the economics of deep seabed mining may prove to be. But we do know that man's growing need for resources is already creating great pressures to develop the technology to obtain those resources. It will avail us little to develop a cooperative plan for the development of these newly available resources if at the same time we revert to the most nationalistic flag-nation approaches to the problems. The oceans will become an area for new clashes of national wills and ambitions, as a result of which all nations will suffer, unless we are determined to find solutions through international cooperation.[4]

If there are so many unknowns in the exploration and exploitation of the seabed beyond the limits of national jurisdiction, which the previous statement I have just quoted purports to keep to the maximum width possible for the benefit of mankind generally, and the developing countries in particular, how can we convince these latter countries to abandon the certain in favor of the uncertain? Is this consistent? Lest it be misunderstood, I will at once point out that the

[3]United Nations document A/C.1/PV.1774 at pp. 7-8.

[4]United Nations document A/C.1/PV.1774 at p. 7.

latter part of Senator Pell's second statement is very true indeed, with the reminder that the growing need for new resources is really and essentially the problem of highly industrialized countries.

I assure you that it is very easy to point out from the records of the official meetings in this respect similar examples.[5] I would not even dare to pretend that these inconsistencies do not exist in the "unilateral extension" camp.[6] But surely we have gathered here for a more constructive task; and this brings me to my judgment which I shall endeavor to present for what it is worth in the following points:

1. Since phenomenon of unilateral extension of jurisdiction has been precipitated by deeply felt economic needs and aggravated by inadequate interest-balance system of legal norms, our efforts should be directed towards remedying the conditions that gave birth to the very phenomenon itself. This has to be done in an atmosphere of great understanding of the problems of developing countries; for after all there is a world of difference between the urge to develop oneself and the desire to accumulate more profits.

2. The conduct of States must be subjected to a new system of interest-balance which reasonably accommodates the interests of all.

3. It is self-evident that unless the developing countries are reasonably assured of the benefits that will accrue to them from a maximum limit of jurisdictionally international area, the system of interest-balance referred to above will never be achieved. Consequently, work on the regime of the seabed and the international machinery for the exploitation of its resources should, for all practical purposes, possess an element of priority. Despite certain denials,[7] this has been the understanding behind the consensus General Assembly resolution 2750C(XXV) of December 17, 1970.[8]

4. It has to be remembered that the priority meant is simply a priority in the timing of the order of discussion, and not in any way an effort to come to a final and definite agreement on the regime and machinery before the question of limits could be tackled.[9]

This may sound to you as a Utopian judgment. But let me remind you with the latter part of Senator Pell's second statement, which I quoted earlier—the part that envisages international cooperation as a means to solve the problem. Is not international cooperation a Utopian concept if it is to be made devoid of any content that corresponds to the economic and political realities of our world?

THE RELATED ISSUES OF THE LAW OF THE SEA

Without going into detailed historical assessment, it is to be pointed out at the outset that, after much controversy and conflict, the General Assembly decided, in Resolution 2750C(XXV) of December 17, 1970, to convene, in 1973, a Conference on the Law of the Sea. The view of States opting for a comprehensive

[5]The Australian representative, Sir Laurence McIntyre, pointed out, in his second statement before the First Committee during the last session of the General Assembly, "the need to move forward with all practicable speed" counselling, of course, the theme of international cooperation rather than unilateral action. But he went on to say: "It is fair to say that many governments have some conception of the potential benefits that the seas and the seabed may yield for their peoples; but we need to recognize that few governments have accurate knowledge of what the seas might hold for them and of how to take advantage of that knowledge. That is bound to induce in many governments a natural caution in approaching the process of international bargaining for the realization of their interests in the seas, for the very reason that they find it hard to be sure precisely what their interests are . . . . No responsible government will want to yield ground in this arena without being fairly clear where its interests lie and what it feels it should get in return." (United Nations document A/C.1/PV.1782 at p. 67.) Thus, we should move speedily, and at the same time, we should be cautious and not yield any ground till our interests become fairly clear. This is of course in relation to the exploitation of the seabed. Here, two points immediately arise. First, if lack of knowledge about the resources of the seabed and the economic viability of exploitation is the true reason behind the natural caution of the developed countries in the process of international bargaining, it is even more true for developing countries. Second, how can the developing countries rest assured with a mere uncertain economic promise and abandon the economic benefits they are, more or less, harvesting at present within the context of their present maritime claims?

[6]The inconsistencies in this camp can be generally shown from at least three points. Firstly, there is a tendency to reject traditional legal norms and at the same time rely on concepts materialized within the process of development of these very norms. Second, there is often a strong reliance on regional agreements and customs while the overall problem is truly global. Third, there is a feeling to reap the advantages of advanced technology and at the same time passing lightly upon reasonable advantages that should be due to those who possess that very technology.

[7]See the two interventions made on behalf of the United Kingdom in United Nations document A/C.1/PV.1799 at pp. 99-100, and PV.1800 at p. 46.

[8]See the statement of the Canadian Representative, who introduced the draft resolution on behalf of the co-sponsors in United Nations document A/C.1/PV.1799, at p. 88; the statement of the representative of Chile, *ibid.*, at pp. 94-95; and the statement of the United States representative, *Ibid.*, at p. 98. It is to be observed that both Chile and United States co-sponsored the draft resolution. This has also been the view of some Afro-Asian countries during the 12th Session of the Afro-Asian Legal Consultative Committee, held in Colombo (January 18-27, 1971). See United Nations document A/AC.138/34, at p. 8. This view was also maintained by Canada in the Seabed Committee's Session of last March. See United Nations document A/AC.138/SR.58, at p. 18. However, some developing countries saw the two questions of "regime" and "limits" as the two facets of the same process, and so work on them should proceed simultaneously. See Kuwait, United Nations document A/C.1/PV.1780, p. 32.

[9]This is the excellent interpretation of a representative of a developing country, namely Mr. Pinto of Ceylon, which he put forward before the Seabed Committee last March. See United Nations document A/AC.138/SR.47, at p. 2. This is probably what Mr. Kaplan, the Canadian representative had in mind when he thought that the only solution to the dilemma of priority was to ensure that final setlement of the two questions of 'regime' and 'limits' be reached at the same Conference, at the same time. See United Nations document A/C.1/PV.1779, at p. 14.

Conference triumphed, up to a limit, through the adoption of this resolution.[10]

The preparatory body for the intended Conference, namely, the newly enlarged Seabeds Committee, was instructed, in this connection, to prepare a comprehensive list of subjects and issues relating to the law of the sea, including those concerning the regimes of the high seas, the continental shelf, the territorial sea (including the question of its breadth and the question of international straits) and contiguous zone, fishing and conservation of the living resources of the high seas (including the question of the preferential rights of coastal States), the preservation of the marine environment (including, inter alia, the prevention of pollution) and scientific research.[11]

From this wide agenda, I shall have to pick up some of the issues, and endeavor to highlight the major conflicting interests very briefly.

In view of the existing gap as to an internationally agreed breadth to the territorial sea, there is a need to strike a balance between the legitimate right of the coastal State to exercise sovereignty over a belt of the sea adjacent to its coast, and the competing need of all States for navigation. This question is intimately interrelated with other issues; namely, problems of fisheries jurisdiction, conservation of the living resources of the sea, pollution control, and the preservation of the marine environment.

As for the breadth of the territorial sea, it should be recognized that the chances to attain a reasonable and equitable interest-balance system would be completely jeopardized if we were to concede to the coastal State an absolute discretion to define unilaterally the actual limits of its territorial sea. The highest judicial organ in the international arena has already decided that delimitation in this respect has an international aspect.[12]

If we consider a maximum breadth of 12 miles as the most reasonable and equitable limit to the territorial sea, in view of the fact that the majority of States have adopted this limit,[13] then the legal validity of any wider breadth claimed by a coastal State depends on its acceptability by the international community. This is a direct consequence from the World Court's judgment just referred to.

But we should not hasten to conclude that the unilateral fixation of the actual limits of the territorial sea is one and the same question as the unilateral extension of jurisdiction, which I dealt with earlier. Closer examination reveals that only a minority of State claims within the "unilateral extension" camp actually amount to a unilateral extension of the territorial sea. In fact, in the majority of cases, national jurisdiction has been extended for specific purposes, such as fisheries and pollution control.[14] Thus, it is absolutely necessary to distinguish the concept of the territorial sea from any other maritime zone claimed for purposes other than those of the territorial sea.

This brings me to the second question of fishing and conservation of the living resources of the high seas. It is apparently clear in this connection that there is a definite clash between the interests of distant-water fishing nations and adjacent-water fishing nations, between developing States which have not yet achieved an effective fisheries capacity and developed States which proceed to fish out the oceans with huge fleets equipped by the most modern and highly sophisticated machinery accompanied by the most efficient factory ships. Here, again, if a reasonable and equitable interest-balance system is to be achieved, reliance on traditional concepts such as the 'freedom of the seas' would simply not help.

The right of the coastal State to take action against overfishing off its coasts must be conceded. This right is already implied in the 1958 Geneva Convention on Fishing and Conservation of the Living Resources of the High Seas. This is not enough, however, for the right has been heavily burdened by safeguards to a point of complete ineffectiveness. So it seems obvious

[10]Briefly speaking, the "comprehensive conference" approach was based on the following considerations: (1) political changes, in terms of the accession to independence of a large number of countries since the Geneva Codification Conferences of 1958-1960; (2) legal changes in view of the irreversible trend of unilateral extension of jurisdiction phenomenon precipitated by mounting dissatisfaction with existing interest-balance legal norms; (3) scientific and technological changes highly affecting the interests of all States, and particularly the developing countries. On the other hand, States which chose a "limited conference," saw only an impelling necessity to deal with the gaps of the existing edifice of the law, and the new issues (i.e., the exploration and exploitation of the seabed and ocean floor), on the assumption that the outstanding issues could be resolved separately and consecutively without disturbing what had already been achieved by members of the international community. However, in view of the organic and complex interrelationship between the issues of the law of the sea, the view ultimately prevailed that all the issues should be treated comprehensively and simultaneously.

[11]This is the combined effect of the provisions of Paragraphs (2) and (6) of Resolution 2750C(XXV). From the point of view of the organization of work of the Seabed Committee, this task, with the exception of the question of the preservation of the marine environment (including, *inter alia*, the question of pollution) and scientific research, was entrusted to Sub-Committee II of the Committee with the understanding that the Sub-Committee may decide to draft articles before completing the comprehensive list of subjects and issues related to the law of the sea. See United Nations document A/AC.138/SR.45/Corr. 1.

[12]In its judgment in the Anglo-Norwegian Fisheries Case, the International Court of Justice said: "The delimitation of sea areas has always an international aspect; it cannot be dependent merely upon the will of the coastal State as expressed in its municipal law. Although it is true that the act of delimitation is necessarily a unilateral act, because only the coastal state is competent to take it, the validity of the delimitation with regard to other states depends upon international law". See Judgment of December 18, 1951, International Court of Justice Reports, 1951 at p. 132.

[13]It would seem that at present between 90 and 100 states favor a 12-mile territorial sea.

[14]For example, Chile claims a three-mile territorial sea, and 200-mile area of economic jurisdiction. Canada claims a 12-mile territorial sea and a 100-mile area for pollution control.

that a new bold approach and a further step must be taken. If circumstances warrant, we must concede to coastal States exclusive, or preferential, fishing rights in areas adjacent to their coast, and this is to be coupled with a genuine multilateral effort to achieve and apply a rational system of conservation measures to those resources that have suffered the fate of depletion to a point of extinction.

Given the existing conditions, the only other alternative seems, in the words of a representative of a developed country, to be that ". . . States would be forced to meet international inaction by national action . . ., for even in developed countries there (are) fishing communities which depended for their livelihood on the living resources of the sea adjacent to their coasts."[15]

The third question I would like to pass on to now is that of the definition of the continental shelf. This is a question very closely connected with the definition of the international area of the seabed and ocean floor. The existing legal norm is contained, as you know, in Article (1) of the 1958 Geneva Convention on the Continenal Shelf, which defines this maritime area as the seabed and subsoil adjacent to the coast but outside the area of the territorial sea, to a depth of 200 meters or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the resources of the said area. In this connection, the following observations are called for:

1. This definition of the continental shelf is the existing legal norm no matter how vehemently we deny its existence.

2. It must be admitted, however, that the definition is, and at the same time is not, precise. For, while the isobathic criterion of 200-meter depth can easily be assessed, it is not clear whether technical or economic considerations are to guide our assessment of the continental shelf on the basis of the exploitability criterion.

3. Clearly, if the application of the exploitability criterion is to be pushed to its farthest limits, then it would be absolutely impossible to conceive of any international area of the seabed and ocean floor, the resources of which are the common heritage of mankind, to be exploited for the benefit of all nations and particularly the developing countries. This is obvious, since the latter concept is based on the perfection of the technology that makes it a reality; a technology that is within reach.

In view of these observations, the reasonable and equitable interest-balance system we would like to see is one that should reflect the maximum extent possible of accommodation between the interests of the coastal States and the interests of the international community at large. This will have to be done not so much in terms of simple numerical isobathic criterion, but on the basis of functional and scientific analysis of the economic needs of States.

[15]Canada. United Nations document A/AC.138/SR.58, at p. 14.

In this quest for better definitions we should not inhibit our international efforts by any kind of domestic economic "pressure-groups" philosophy that puts the desire for self-profit above the norms of reasonableness and equity. A case in point on such a philosophy, which I am sure many of you are aware of, are the conclusions reached in this country by the Special Subcommittee on the Outer Continental Shelf of the Senate Committee on Interior and Insular Affairs.

In introducing the report of the Subcommittee in the Senate on March 10, 1971, the Chairman of the Subcommittee, Senator Metcalf, pointed out the absolutely essential need to exploit the mineral wealth of the American continental margins which will fuel the nation's needs for the next century; hence, we are told, the need of undisputed access to these resources to fuel the American industrial machine and thereby sustain a sound economy.[16] The Senator strongly and at relative length degraded the "freedom of the seas" doctrine because technologically underdeveloped nations do not benefit from it, and hailed the doctrine of the continental shelf, because all coastal States, whether technologically advanced or not, equitably enjoy the same exclusive right to explore and exploit the natural resources contained within their entire continental margin.[17] Then Senator Metcalf presented the conclusions of his Subcommittee, which may be summarized in the following points:

1. The unanimous agreement that the "rights under the 1958 Geneva Convention on the Continental Shelf extend to the limit of exploitability existing at any given time within an ultimate limit of adjacency which could encompass the entire continental margin.[18]

2. The basis of this interpretation is said to be "the exclusive sovereign right . . . to explore and exploit the natural resources of (the) entire continental margin (as) an inherent right by virtue of . . . sovereignty over the land."[19]

3. There are certain so-called "nautical hawks" who feel that freedom of navigation would be hampered by the development of natural resources of the continental margins of the world, as is evidenced by claims of certain States to areas of exclusive jurisdiction far in excess of the Geneva Continental Shelf Convention, which claims are in abrogation of the freedom of the seas doctrine. This view is dismissed by the Subcommittee as unfounded allegations. In this connection Senator Metcalf said:

> The best means to insure that a law is obeyed is to seek to enforce it, not to pass a new law redundantly stating an existing crime to be unlawful. Likewise, the best means to preserve the freedom of the seas doctrine is to insist that it be honored. This cannot be achieved by proposing a new treaty which restates the already existent doctrine of the freedom of the seas. In short, the

[16]See *Congressional Record,* Vol. 117, No. 32, S2814.

[17]*Ibid.*, at S2815.

[18]*Ibid.*

[19]*Ibid.*

> freedom of the seas doctrine is adequately incorporated in the existing Geneva Conventions on the Law of the Seas and is well recognized in customary principles of international law.[20]

Then the Senator goes on after a while to say:

> So we previously stated, the freedom of the seas doctrine, in theory, is well established in international law. Also, the freedom of the seas doctrine, in practice, is adhered to by the overwhelming majority of nations. Yet, a minuscule minority of nations has been reluctant to recognize fully and respect the freedom of the seas doctrine. This handful of nations is known by all others for its violations of international law. For the United States, or any other law-abiding nation, to offer to renounce its inherent sovereign rights to the mineral estate of its continental margin in the hope that these few recalcitrant nations would mend their ways and begin to adhere to the freedom of the seas doctrine is like offering to pay ransom to bandits in order to encourage them to stop stealing.[21]

I shall continue no longer quoting this kind of language. You may be just as puzzled as I am. Let me, nonetheless, observe the following:

1. If the freedom of the seas doctrine aggravates inequity, how could we ask to have it as a solid premise for the elaboration of legal norms of control? Is the challenge to the inequitable a violation of law, a crime of banditry. I would have thought it is rather the contrary.

2. Senator Metcalf repeatedly talked in terms of the "continental margin." Yet, we all know that it is not absolutely certain that this is the intention of the drafters of the relevant Geneva Convention to the subject, as the legislative history of the said instrument shows.[22]

3. Who has ever heard of the view that the Continental shelf doctrine has found its birth on the basis of the freedom of the seas doctrine as Senator Metcalf would like to have us believe?

4. Admittedly, it is true that today nobody seriously denies the universal acceptance of the continental shelf as an extension of the sovereignty of the coastal State.[23] But if this extension of the sovereign rights of coastal States is to be pushed to the farthest seaward limits, would we not undermine the entire movement of the international community to reserve as much as possible of the seabed resources to be exploited for the benefit of mankind as a whole and particularly the developing countries?

It is to be hoped that these general observations would suffice to show the dangers inherent in any self-centered approach. Advocacies for do it alone when you can, would not help solve our problem. One can only hope that in the international arena, States within which such approaches are advocated would continue, in the process of international bargaining, along the path of cooperation rather than self-interest and confrontation.

CONCLUSIONS

The previous modest assessment has only concentrated on some of the major issues that require urgent solution. Undoubtedly, there are many more equally important and intricate questions that need to be resolved. Only reasons of convenience have not permitted their treatment here.

At this stage, and on the basis of what has already been said, the question I should address myself to now is this: Given the present state of affairs prevalent now in relation to the seas, are there any prospects for agreement on a system of State activity control?

Before I give my final answer, I would like very briefly to recall a few facts. After much controversy, States reconciled their attitudes and agreed on the Declaration of Principles. In the same vein, they agreed on the date of the conference, its agenda, and the manner of its preparatory work. And, again, after much controversy, State members agreed on most of the questions relating to the organization of work of the Seabeds Committee. So far a process, in fact, is set under which negotiating parties move, with a spirit of accommodation, from disagreement to agreement.

However, it may be said that this is so because the decisive stage of bargaining on the substantive aspects has not yet been reached. Let me say at once that we should have more faith in the sense of responsibility of the negotiating parties, and if they have so far shown a spirit of accommodation knowing full well that at some time substantive drafting must be done, then there is absolutely no reason why the same process I referred to will not continue.

To achieve a new reasonable and equitable interest-balance system of norms to govern the conduct of States at sea requires recognition of the following:

1. The great value of the four Geneva Conventions on the Law of the Sea should not be treated lightly. "There (is) no justification whatsoever for treating those Conventions as though they were an obsolete piece of nineteenth century legislation.[24] At the same

[20] *Ibid.*, at S2815-S2816.

[21] *Ibid.*, at S2816.

[22] See Luke W. Finlay, "The Outer Limit of the Continental Shelf. A rejoinder to Professor Louis Henkin," 64 *American Journal of International Law* (1970), p. 42; Louis Henkin, "A Reply to Mr. Finlay," *ibid.*, p. 62. See further, Henkin, "International Law and 'the Interests': The Law of the Seabed," 63 *ibid.*, p. 504.

[23] In the North Sea Continental Shelf cases, The International Court of Justice, quite independently of the 1958 Geneva Convention, said: ". . . the rights of the coastal State in respect of the area of continental shelf that constitutes a natural prolongation of its land territory into and under the sea exist *ipso facto* and *ab initio*, by virtue of its sovereignty over the land, and as an extension of it in an exercise of sovereign rights for the purpose of exploring the seabed and exploiting its natural resources. In short, there is here an inherent right . . ." Judgment of February 20, 1969, *I.C.J. Report* (1969) 3, para. 19.

[24] Mr. Castaneda (Mexico), United Nations document A/AC.138/SR.58, at p. 3.

time law is not an end in itself. It is a means to reasonably and equitably balance the conflicting interests at a certain stage of time and place. Progressive development of international law must be viewed as a continuous process, if law is to correspond to reality.

2. The underlying basis of the present state of affairs at sea should not be viewed in terms of noble internationalism versus dishonorable economic nationalism. It should rather be viewed through the periscope of the realities of our modern world, namely, developed States and developing, rich and poor, greed for profit and economic self-defense, and the like. If so, one is bound to conclude that what is needed is to balance reasonably and equitably to the maximum extent possible the national interests of each and every individual State with the international interest of the collectivity of nations.

3. The established notions of the present law must be viewed with a new realistic light. Thus, for example, if the doctrine of the freedom of the seas emerged in defiance of maritime empires, it should not be a yoke around our necks. It should rather be a functional tool of reasonable and equitable interest-balance system. Need I recall that the marine environment problems resulted from strict adherence to the doctrine of the freedom of the seas.

4. The phenomenon of unilateral extension must, of pragmatic necessity, be viewed as a response to genuine economic needs and not simply as mere banditry. The more we drive our energies as best we can towards adjusting the basic impulses that give rise to the phenomenon with the overall interest of the entire international community, the nearer we are to a satisfactory solution.

5. If international cooperation is to mean anything at all, our attitudes should be motivated by a genuine desire to confront the "real" issues, and not to cloak them with all sorts of shades to conceal self-gain. I recall the concluding words of the Chairman of the Seabeds Committee when introducing the then draft Declaration of Principles in the First Committee on November 25th, 1970. He said: "Success in a gigantic enterprise of this sort calls for the display of a spirit of prudent compromise."[25] This is very true indeed not only in relation to the seabed, but also with respect to our entire efforts in the whole domain of the law of the sea.

With cautious optimism, I feel sure that these remarks are in the minds of most members of the international community. Hence there is in my view a prospect for agreement.

[25] H. S. Amerasinghe (Ceylon), United Nations document A/C.1/PV.1773, at p. 21.

Louis B. Sohn, Counselor on International Law, U. S. Department of State; Bemis Professor of International Law, Harvard Law School

Thursday morning, June 24

At this point I am in a limbo between the State Department and my alma mater, Harvard Law School; having just left the State Department but not yet returned to Harvard.

It is difficult to decide what to talk about today because of the rich fare you have already had put before you in the last few days. This morning Dr. Seaton has made such a magnificent and well-balanced survey of all the issues which will face the Law of the Sea Conference in 1973. Last Monday, you have had a very thorough and detailed statement of the problem by E. D. Brown, and also this morning Dr. al-Qaysi gave us another general analysis from the point of view of the developing countries. It would not be useful, it seems to me, to try and cover once more the same broad ground. Instead I shall concentrate on a small area, and thus attempt to provide more depth than was possible to achieve in other statements.

As my special expertise is in the area of the seabed, I shall try to deal with the principal issues involved in that area. I suppose there are about seven main issues, and I shall discuss them one after another.

The first one is how to affect a transition from the doctrine of the freedom of the seas to the new, or perhaps rediscovered, concept of the common heritage of mankind; or to put it otherwise, how to modernize the law of the sea to reconcile the opportunities of modern technology with the needs of the international community.

The second issue is how to save some 70 percent of the earth surface from national conflicts and rivalries.

The third one is how to protect the marine environment, both its uses and its users.

The fourth one is how to satisfy the just demands of the coastal States without sacrificing the principle of equitable sharing by all States in the benefits derived from the resources of the seabed.

The fifth one is how to take care of the special interests and needs of the developing countries irrespective of their geographical location, whether they are land-locked, shelf-locked, or coast-locked.

The sixth issue is how to insure a proper investment climate for an effective development of the resources of the seabed.

The seventh is how to build up international institutions strong enough to safeguard the interests of the international community and the common heritage of mankind.

These are the seven main issues. Now I would like to deal with each of them at least in a few words.

The first one is the transition from the doctrine of the freedom of the sea to the doctrine of common heritage of mankind. In a way they are irreconcilable because to some extent the freedom of the sea doctrine, especially when applied to the resources of the seabed, might mean that anybody can take anything he wants to without any consideration for the general interest of mankind.

If you want to have an orderly development of the resources of the seabed, some limitations would have to be put on the freedom of the seas in the old-fashion sense at least with respect to that area. It does not mean, however, that it would significantly interfere with other freedoms of the sea, especially the freedom of navigation; although the exploitation of the resources of the seabed might impose some minor limitations on it.

The second problem, which I think looms as a principal one, is how to save the oceans of the seabed which constitute 70 percent of the earth surface from national conflicts and rivalries. The basic issue since 1945 has been the maintenance of international peace. We have had some setbacks, but I think our record is not too bad. There looms before us, however, the possibility that in this new area, unless we establish a satisfactory international regime, there might be a tremendous clash of interests between the major powers themselves who might stake claims to the large areas of the oceans and the seabed in the manner of the Spanish and Portuguese claims of the fifteenth and sixteenth century. There might also be large claims by the coastal States; consequently, clashes in all directions are possible.

Finally, there might be conflicts between the coastal States about the delimitation of the areas between them and between ordinary coastal States and States situated on islands and archipelagoes about the division of the areas between them. Some areas have had a good record. I think we all admire the example of the Europeans who were able to reach agreement after some litigation, with respect to the division of the North Sea and the boundaries there. We have seen, also, the effort made by Indonesia with her neighbors, trying to develop some kind of order in Southeast Asia. There are nevertheless a few vast areas of the world where there is a potential for very dangerous clashes, which can escalate and involve the big powers, even though these are areas in which the big powers are not directly involved.

We have seen what happened in the nineteenth century when there were dangerous conflicts among major powers about Africa, and we dread the possibility that something like that might happen again in the seabed. We have to provide, therefore, both a regime with clear rules and regulations, and also some effective means for settling international disputes. Nothing less will suffice.

The third issue is how to protect the marine environment. This is a part, of course, of a larger picture of protecting environment as such, which will be the subject of a separate conference in depth in Stockholm in 1972. But the Stockholm conference can do no more than establish certain guidelines and certain directives for future action, and in any case the Conference on the Law of the Sea will have the special responsibility of protecting the marine environment as such. The seas are suffering not only from pollution from ships and other methods of navigation, but also from pollution that comes from land, that flows into the oceans through rivers and comes also from the air brought by winds from all over the world. How to cope with it is a very difficult problem. It is a new area and requires again a concerted effort by the world community because it is quite clear that no State, however powerful or however energetic in trying to establish rules and regulations in the area, can affect more than a very small part of the picture. If you want something efficient again, you need international rules, international regulations, and an international authority to supervise the performance by the users of the seas and even by the people on land whose activities affect the sea.

The fourth issue, and perhaps to some the most crucial one, involves the relationship between the coastal States and the other States of the world. It is quite clear that the coastal States have important rights and duties in the areas close to their shores. The dispute to some extent relates to the question of how far those rights extend and how far those duties extend, because many people sometimes forget that not only rights are involved, but there are also very important duties, especially with respect to the conservation of marine resources, the protection from the shore pollution, and other things. States owe these duties not only to their own peoples but to the community as a whole.

There is also the important issue of equitable sharing for all States in the benefits derived from resources of the seabed, and we all know that if coastal States acquire too many rights in too large areas very little will be left of the great idea of the common heritage of mankind that was adopted by the General Assembly by a unanimous resolution last year. It is no use having common heritage over an area in which practically nothing is left because everything important was taken by somebody else. Therefore, one of our crucial issues is how to satisfy the just demands of the coastal States and at the same time protect the rights of the international community, preferably through some kind of international institution.

The additional problem is that many States, even if they are coastal, have only very limited rights or interests in the sea; that there are also other States, the landlocked States, which have shown some interest in this area; that the so-called shelf-locked States would like to have some rights there; and that even among the coastal States themselves there is no rhyme nor reason as to how much coast they have, how much their area extends into the sea, how deep their con-

tinental shelf is. We can appreciate this easily if we just look at some States. Take, for instance, the two Congos, Congo Kinshasa and Congo Brazzaville; you will see that Congo Brazzaville, which is much smaller in population, has a much larger area of the seabed adjoining its shores. Is that reasonable or equitable? You can see that many countries have very small shelves and very small continental margins. Others have extremely large ones. What can be done in equalizing the rights and duties of States in the area? In particular, can some rational arrangement be made for using the resources of the area to the largest possible extent to provide for the needs and interests of the developing countries as a whole regardless of their location?

The next problem I mentioned is how to insure a proper climate for an effective development of the resources of the seabed. Everybody realizes that tremendous investments are necessary. Those investments will not be forthcoming unless you have some kind of uniformity of standards throughout the world which would remove in particular the severity of unfair competition between States or groups of States. Second, you need the stability of rules. If those rules are changed too frequently, the investments are not going to be forthcoming. Finally, you need some reasonable safety for investments because otherwise it would be difficult to persuade the investors to put their money into this rather dangerous enterprise.

Finally, coming to the subject close to my heart, what kind of institutional arrangements are possible in this area? There are some proposals already on the table, but I think we need a more thoughtful approach to the subject. First, we have to agree on the kind of international authority that is necessary in this area. Should it be an old-fashioned type of an international organization, or should it be something closer to the supranational institutions which we already have in Europe, in East Africa, and a few other areas? Are we going to have something in between? More likely it would combine the best features of such specialized agencies as the International Civil Aviation Organization, which provide effective regulations for a very important international field, with some type of regulation that has been developed by the European communities. A proper balance has to be found for this very difficult problem.

The second question is, what kind of principal institution are we going to have? There is general agreement that we need some kind of a General Assembly with overall powers of supervision and recommendation. But it is also quite clear that in this area powers should be concentrated in an executive body, some kind of an international council of limited membership and relatively broad functions. Here the crucial issue is to ensure equality between the developed and the developing countries, and to provide effective protection of the interests of large and small States at the same time. This is, I suppose, going to be one of the crucial issues, and I think here both sides must show a reasonable amount of flexibility.

Another question is whether we are going to have under the council some kind of administrative bodies that would deal not only with the regulatory process but also with the process of administering any kind of licensing and supervision system that we might have. The issues are: whether you are going to have one, two, or three bodies like that; how they should be composed; and to what extent they should be independent bodies, perhaps like the commissions of the European communities.

Another big issue is to what extent an international authority would be empowered to conduct exploration and exploitation activities itself or through hired contractors, or would proceed mostly through States and private corporations under license or under supervision by States.

As I mentioned before, there is also the crucial issue of the settlement of international disputes. The United States made some very extensive proposals on the subject, but some people think they are not extensive enough, particularly as they do not provide sufficient possibilities for settling disputes between private persons and corporations or between States and private corporations. Maybe it would be premature to have such powers in the international tribunal, but still this question has to be discussed.

Another important issue is to what extent the power should be lodged in the International Court of Justice or one of its special panels or should be granted to a separate technical tribunal, which would be able to deal with this problem in a more thorough fashion.

I have been able to sketch out in this limited area only a few of the problems we are facing. We need to be pragmatic, not dogmatic. We have to be practical with a dash of idealism. We must keep an open mind for new solutions and not be too conceptualistic nor too logical. I talked with somebody about this subject today, and he said: "While it is logical and obvious and clear to some, it is much less clear and obvious to others." A spirit, therefore, of flexibility is needed, a willingness to move away from previously taken extreme positions to a common center. Some States have already made proposals which reflect this spirit of flexibility. It may be hoped that other States will show similar flexibility in the future.

As far as the seabed regime is concerned, we must strive to achieve a balance, as I mentioned before, between regulation and non-regulation. This is a problem similar to that which we are facing in domestic societies: how much freedom we want to keep, and how much freedom we need to restrict in order to permit other people to exercise their freedom. It is necessary to grant to the coastal States the powers required to efficiently, rationally, and sensibly manage the resources of the sea and the seabed near their coast. At the same time we must establish international

institutions with effective, meaningful, and sufficient powers to protect the common heritage of mankind.

You might say that I have raised a large number of issues, and that I have provided only a few answers. I think this is appropriate for the moment at which we are. The process of intergovernmental negotiations has just started. I hope that in the coming session in July and August we will make sufficient progress to ensure that the 1973 Conference can be a success. But it would be very bad at this point before that process has even really started for us to adopt, as I mentioned, some doctrinaire or very strict positions. We have to be prepared to negotiate in good faith, to keep a mind open to new solutions, to let our diplomats and lawyers work out in some reasonable fashion combined solutions acceptable to all, even if they should not be satisfactory in each detail; taken together they should represent what is feasible, but at the same time, also what is necessary in order to establish a true international order of the oceans.

Commentary: McDougal

Myres S. McDougal, Sterling Professor of Law, Yale University Law School

Thursday morning, June 24

Some of you may know that some ten years ago I had the good fortune to be associated with, and work in this field with, Professor Burke. Since that time I have been working on relatively trivial problems like the law of outer space, the law of treaties, and the making and application of international law.

Upon returning to this field of my first love, I feel a little like a Rip Van Winkle. It seems a crazy world in which everything is upside down, and black is made to be white, confusion dims enlightenment, and special interests are rampant. I can't help but recall a remark that my colleague, Professor Bouchard, once made that an optimist is a man who thinks that the future is uncertain.

I should like to take this occasion to try to get back to fundamentals—to outline the problems we confront with a much broader brush than any of our speakers have yet attempted. If we are to understand these urgent problems of the law of the sea, it is necessary to put such details as my colleague, Professor Sohn, has expounded to you into a broader context which should shape all our recommendations and decisions about every particular problem. Like our first two distinguished panelists here, Dr. Seaton and Dr. al-Qaysi, I feel that the future of the international law of the sea will be determined by the degree to which all of us can clarify and implement our common interests, our genuine common interests. It seems to me that perception of common interest is over time the true sanction of any system of law, including that in the larger community. Naked power or force is never economic, and is seldom a sanction for any kind of law for very long.

In these remarks, I shall be speaking as a professor, somewhat pedantically lecturing you; this is my vocation, it is my style. I assure you that I do this with no arrogance, but in all humility. Similarly, I cannot divorce myself from the fact that I am a United States national. I do not think any healthy man can escape identifying with his own national community, as well as with larger communities of which it is a member. I have deep roots in the communities of many of you here today. I have taught students from other countries, both at my home and abroad, for over thirty years. Insofar as I can, I intend to try to deal with these problems from the perspectives of citizens of the larger whole of mankind. If you prefer, let us adopt the perspectives of the anthropologist who tries to observe both common and special interests and to clarify a common interest. If I fail in this, I would suggest that this is an exercise which all of us should be continually trying.

In organizing my remarks, I propose to operate under four main headings: first, the historic experience mankind has had, the lessons we have learned, from the law of the sea. This is our genuine common heritage. Secondly, the manifest contending claims of the moment; I am not sure that the manifest content of these claims is, as some of our speakers have indicated, their genuine content. Thirdly, the genuine problems, from the perspectives of the larger community or of the anthropologist, that we do confront in creating an improved international law of the sea. Then, finally, what the basic general community policies should be for guiding us in our detailed choices about all of the specific problems before us.

We begin with the effort to clarify what our genuine inheritance in basic acquired knowledge from the past law of the sea is. I am deeply distressed not only by some of the remarks I have heard here in the last three days but also by what I have read in the discussions in the Seabeds Committee. I am not sure that the international law of the sea as we have had it for some 300 years is really understood when I hear such an eloquent and learned man as Alan Beesley say that time has come to get rid of Grotius and to embark on new revolutionary proposals and procedures. I am deeply depressed when my own colleague, Professor Sohn, speaks of freedom of the seas in the past tense and when others of you have disparaging remarks to make about freedom of the seas. I have, as indicated above, a feeling of being Rip Van Winkle in a strange land that I never knew.

When properly understood, the freedom of the seas never has represented more than half of the inherited law of the sea. The freedom of the seas has been simply

a label that has been used to protect the inclusive interests of all States in the shared enjoyment of the oceans. There always has been an opposing, or complementary, set of doctrines protecting the exclusive interests of all States. These latter are equally common interests; they are simply interests of a different kind. I would submit to you that the historic function of the international law of the sea has been to clarify and secure two very different kind of interests that all States share in common.

The first set of interests I call inclusive because these are interests that all States have in like kind and modality. The oceans of the world are a vast reservoir, a vast complex of potential values. By freedom of access (the policies with which Grotius is identified), everyone with appropriate capital, skill, resources, can get out and exploit these resources. Most of the values in the oceans are non-competitive. The transportation, the communication, the creation of wealth by the catching of many kinds of fish, the cable laying, the flying, the sea farming, all these new uses for residence, power development, recreation, therapy, and so forth—these are non-competitive uses. Many States, many peoples of the world have the resources, the capabilities, the skill, the knowledge to exploit these great reservoirs of potential values.

The exploitation of the oceans for these many purposes can be carried forward by non-competitive, non-destructive strategies. Where one ship has just been, another can soon come—with a few modest rules of the road. These uses of the oceans have always been kept open-ended for new invention, for the potentialities of new technology.

Let us turn now to the complementary, exclusive interests. Every coastal State in the world has an interest in the control of the waters so intimately bound up with its land masses that it cannot maintain a healthily functioning, productive community on its land masses without controlling these waters. These waters we call internal or inland waters. Our inherited law of the sea confers upon coastal States the same competence over these waters as over the land masses. Every coastal State in the world also has thought at least it had a common interest shared with others in a further narrow strip of waters along its coast for the protection of its security, its health, and all the activities on its land masses from interference from the oceans. The origins of this little strip we call the territorial sea are obscure; it probably had its beginnings in demand for security, perhaps for monopoly of certain kinds of fish, or in certain demands to protect the community against piracy, and ordinary, simple violence.

Beyond the territorial sea, as Dr. al-Qaysi emphasized, we have been able to distinguish from the comprehensive exclusive competence of the territorial sea certain limited assertions of jurisdiction for the protection of all kinds of exclusive interests. The policy which underlies the contiguous zone is precisely the same policy that underlies the doctrine of impact territoriality for protection of the land masses. When the State feels it is peculiarly hurt or threatened by activity beyond its boundaries, if it can get the effective power and resources, it can adopt reasonable zones for its protection. This is the only policy that is back of this notion of contiguous zone.

In addition, we have had the notion of the continental shelf. It seems to me that the policies back of the continental shelf, the protection of the exclusive interests of States in the continental shelf are much deeper than Dr. Seaton suggests. This is no simple extrapolation of the geophysical, geographical prolongation. We can go back to the original Truman proclamation. Mr. Truman put it on several grounds; problem of international security; no States desire other States building heavy installations on their coastal boundaries; such installations could be instruments of attack, could conceal nuclear weapons, or whatnot. There are also matters of economy: the coastal State can exploit the mineral resources most economically. This is one bow I would make to Dr. Christy. The expectations of people on the land masses may build in some measure upon physical prolongation. As Dr. Seaton suggested, however, if this were the only criteria, then we might have a single unified world since we are geographically unified.

There is another point to be made on the continental shelf that some of our speakers have ignored. This is that, in the continental shelf doctrine, we are dealing with very different kinds of resources from what we are dealing with when we make claims to fish. There is the distinction that one of our speakers, Mr. Drechsler, emphasized the other day between stock and flow resources. When you are working with stock resources, you're working with a limited quantity, with a quantity that is exhaustible and that may require vast sums of money to exploit. Such exploitation may have to be non-competitive. If it is opened up to competition, one may not get the investment or the economic production.

With respect to fish, one is dealing with a flow resource of completely different characteristics—where different quantities become available through different periods of time, which can be exploited by different people, with very different technologies, in different ways. It may be that some fish there are exhaustible; hence it may be best for the coastal State to exploit them.

What I am suggesting is that rational policy will distinguish not only between stock resources but between different kinds of flow resources. What is permissible monopoly, and in the common interest, with respect to one resource may not be necessarily permissible monopoly with respect to another resource. Our inherited law of the sea has very carefully made these very nice discriminations through time.

In terms of jurisdiction, our inherited law of the sea has distinguished internal waters where the com-

petence of the coastal State is comprehensive; it can make and apply law to everybody within the limits of international law. Within the territorial sea competence is again exclusive except for the rights of innocent passage. Within contiguous zones, the burden shifts to the coastal State to establish that its action is reasonable.

The principal point I want you to see is that we have, on the one hand, these inclusive interests that all communities share and, on the other hand, certain exclusive interests, which are equally common interests shared by everybody. All these interests have to be balanced and accommodated in particular instances. Those of you who say that you would be rid of Grotius, of the freedom of the seas, will not be able to escape this array of complementary interests in fact. Should you dispose of our inheritance of accumulated wisdom about the best way to accommodate these interests, you will still have to cope with the problem of accommodation and come up with new ways of resolving it. The problem is a continuing one; it is going on all the time. The new States are participating today in the making of these accommodations. There is not brooding omnipresence inherited from the past making these decisions. Contemporary people are making this law by their cooperative behavior and the expectations they create by this behavior.

This brings me to another major point. We have dealt thus far only with the substance of policies. It is worth emphasizing that these policies have been made by a comprehensive, inclusive process of decision in which all States, even the landlocked States, have participated. Most of these policies are customary law; even the Geneva Conventions are largely codifications of historic experience. Customary law is made, as Mr. Beesley was insisting yesterday, by a process of reciprocal claim which includes a general community response that these are acceptable in common interest. It is not the single unilateral claim that makes law, but rather the general response that the claim, made with a promise of reciprocity, is indeed an expression of sharable common interest.

Take the continental shelf doctrine. The Truman Proclamation was not questioned by anybody. It was copied by some forty States in less than ten years. Everybody said that this had become established community expectation—a permissible assertion of authority and control, because it was in everybody's common interest. This is of course the way in which most international law has historically been made, and must of necessity continue to be made. Distinguish, however, the unilateral claim of special interest, destructive of common interest, from the claim which is made with a promise of reciprocity, and is expressive of common interest. These are very different claims.

I would emphasize also that the whole function of honoring customary law has been to give sovereign States a way of submitting to international law without explicit consent, without requiring unanimous consent. In this way it is established that no single State, or small group of States, can make law for the whole world by refusing to accept the expectations created by the behavior of the larger group of States; it would be completely destructive of the whole public order to permit any one State, or any small group of States, to make or unmake policy for the whole. Our inherited law of the sea has, thus, worked well because in the long run its customary creation is the most democratic way in which all can participate and express themselves, but no few can dominate.

Let us turn from this historic experience, upon which we must build if we are to act rationally, to some of the manifest contemporary claims which appear to deny it. As a newcomer to this field, or relative newcomer after ten years, I am not sure in what degree to take the manifest content of these claims as representing the genuine purposes of the claimants. But many claims are being put forward unilaterally without promise of reciprocity. They are being put forward with little or no effort to establish that they are in common interest and with a content that is in fact destructive of common interest. They are being put forward allegedly because of the wrongs of 300 years of colonial exploitation on the land masses. They fail to distinguish between the equality of opportunity to enjoy the great sharable resource of the oceans and the actual capability of enjoying such opportunity. I would agree that capabilities for enjoying the exploitation of the oceans should be increased, but not increased by destroying the goose (the shared enjoyment) that lays the golden egg. These disparities in capabilities are results of the whole history of the Nation-State, of a bad organization of the land masses. It may be more in the common interest to seek to remedy these disparities by reorganization on the land masses, by a more rational regional organization, or by other external support on the land masses, than by destroying the sharability of our great common resource.

A friend said to me in the hallway a moment ago that he was reminded of Anatole France's remark that both the rich and the poor had equal capacity to sleep under bridges. My response was that one wouldn't build better houses or share them more equitably by burning the bridge down. I would agree with the seriousness of the wrongs and that something must be done about them, but I do not believe that our great historic achievements in the law of the sea should be destroyed in inadequate remedy of wrongs which they had no hand in creating.

Another confusion has been perpetrated by Ambassador Pardo in his most recent utterances, in his failure to discriminate between very different kinds of exclusive interests. The different interests of States in internal waters, the territorial sea, the contiguous zone, and the continental shelf, and in self-defense on any part of the oceans, have been carefully identified and sharpened for very precise purposes for 300 years. Suddenly we are told that all this experience is irrelevant: it would be simpler to have one limit for all

purposes; it is necessary to extend monopoly control of the coastal State for 200 sea miles because it is a little difficult to discover what is reasonable in application of these historic discriminations. This position would appear completely destructive of common interest. In my judgment, our best course is to continue to favor the maximum of inclusive shared use and to restrain exclusive use and control to the minimum that is in the common interest of all States.

I am sure, however, that you are more familiar with these manifest claims than I am. I would like to move on to my third major point, the genuine problems that today confront us, as members of the larger community of mankind, in the rational exploitation and enjoyment of the oceans.

These genuine problems can be described in terms both of threat and of promise. The first and most important threat is to all our values; to the very resource from which the values are created. This is one of the points Professor Sohn emphasized. We face threats to the continued viability of the oceans as a resource. They may cease to be this great reservoir of potential values because of our misuse, our spoilation, our reckless exploitation. I was much impressed by one of the speakers—I believe it was Dr. Wooster yesterday—who insisted that scientific progress in all areas of the ocean is indispensable if we are even to hope to maintain this great reservoir for the multiple uses that we have enjoyed in the past, much less for the uses that we can conceive in the future.

Another threat we cannot ignore here is that to security. By security I mean the expectation and genuine potentiality of being able to pursue all our values by peaceful means, without being subjected to arbitrary violence and coercion. I think it is clear from the speeches that have been made before us already that the whole globe, our whole earth-space arena, is interdependent in these terms. Whether the United States, the Soviet Union, and Communist China like it or not, they are, in Mr. Oppenheimer's graphic words, scorpions in the same bottle. The smaller States also are all in the same bottle. Pending the achievement of a viable security system in the United Nations, the making a reality of the prohibitions of Article 2(4) which embodies all of our aspirations, we are all, big and little, dependent upon a global balancing of power which includes access to the oceans as well as to the land masses. I do not think anybody who seeks to make rational decisions in terms of the common interests that his country shares with other countries can vote for decisions which would disturb the very delicate balancing of power that has been achieved. In a more perfect world we may hope for a better organized balancing of power, with demilitarization, but this is not the world with which we now begin.

Turning from threats to promise, we can observe the tremendous new potentialities in the production of values with corresponding new interdependences, made possible by an advancing technology. For the first time, the riches of the vast seabeds are becoming available, and not merely for the production of oil and minerals. Underwater transportation apparently can be made much more economic than surface transportation. The potentialities of farming for the deliberate creation of new food supplies, the uses for therapy and recreation, the production of electric power—all these potentialities, I gather, are almost inestimable. We heard Mr. Coffey say yesterday that even the older uses, transportation and communication, could not survive with large claims of monopolistic jurisdiction over the territorial waters. If these ancient uses cannot survive with coastal monopoly, how much less can the vast, new, potential uses live with it?

With this background of threat and promise, which I am sure you can fill in much better than I, let us turn to our final major point of the policies that you and I, as citizens of a larger community of mankind, can take responsibility for recommending to other like citizens. I would submit that we do have to build upon our rich inheritance of experience from the past, that people will ignore the wisdom of this experience at their peril. This does not mean that we must oppose change. It does not mean that we must oppose righting the wrongs of the north-south balance. I do feel that many of the small States have been exploited. They have not gotten their share of the riches from a complex social process that includes the land masses as well as the oceans. Our past experience does, however, suggest that we be very careful in discrimination of different types of problems. For different problems, there are different solutions, different remedies. It may be, as I suggested earlier, that the best solution for the grievances on the land masses in the territorial communities is not to project an unworkable organization of the land masses onto the oceans, but to try to reorganize the land masses to get more cooperative, better regional support, and more mutual support between regions. I would agree that the riches obtainable from the oceans can contribute to this, but the oceans can contribute much more if we preserve the great multiplier effect which is secured when all skills, all capital, all initiatives, are brought to bear to increase the total production of values from the oceans and associated resources. You will remember that small islands, like England, and small States, like the Netherlands and Portugal, have made themselves great powers by adding to their land masses the potentials of the shared use of the oceans. The more fundamental problem is to increase the capabilities of small States to take advantage of this equality of opportunity; this problem is not to be solved by killing the equality of opportunity by new monopolistic controls.

From these premises, I would urge a number of emphases: that we continue our great historic emphasis upon the priority of inclusive interests; that in the balancing of the inclusive and exclusive interests of States we should begin with a presumption favoring inclusive sharing of the greatest possible aggregation of potential uses; that when we move to the accommodation of exclusive interests we should continue to

make the very sharp discriminations between different kinds of exclusive uses; and that with reference to the different problems—defense, pollution, different kinds of resources (the stock, the mineral resources, the seabed resources, or the fish, the flow resources)—we should continue to make these discriminations and make them very sharply. We should not simply say that we opt for one limit for all purposes because we cannot make the refinements necessary to be rational in our choices. Such indiscrimination could only be tremendously inimical to the multiplier effect obtainable in the use of the oceans. This does not mean that coastal States may not be able to establish some preferential rights in fish off their shores. A rational answer depends upon what kind of fish there are, what their habits are, what the economies of exploitation are, and what the consequences of a limited monopoly would be upon the world production of food and resources. There are many variables that should be carefully considered in making a decision; and I would agree if a State, like Iceland, can establish a unique interest in fish without prejudice to aggregate common interest, their exclusive interest should be honored.

If I had time, I would go into detail on the matter of boundary limits. The policies we recommend would imply that exclusive limits be put as close to the shore as possible. Professor Burke and I used to argue that the best territorial sea was the low tide mark. I think this still represents the most rational general community policy. Modern technology has made most of the reasons for a territorial sea irrelevant.

When we turn to the making and application of the law of the sea, I would suggest, again, that we demand the utmost democracy in this. Our whole inherited structure has been made to work by very simple rules: that everybody has access; that nobody can deny everybody else access; that everybody makes and applies laws to his own ships except for violations of international law; that nobody can make and apply a law to the ships or activities of others except for violations of international law. The whole structure has been held together by the notion of the nationality of ships; no State can question the competence of another State to confer its nationality upon a ship.

Until we can work up an improved international regime, we should not discard this effective heritage. When we do create a new international organization, we should attempt to balance both equality in participation and responsibility—the capability and willingness to identify with the whole community—and to establish a process that will clarify and implement our common interests with respect to all of these problems.

Discussion

Thursday morning, June 24

Christy: I am very grateful to Professor McDougal for the reference he granted to me, but I really think that some contrary opinion with respect to his position ought to be expressed.

I have been in the process, for a couple of years now, of composing a poem. I've only gotten one line of the chorus so far, and that goes: "Good gracious, dear Grotius, your law is atrocious." I welcome suggestions for its completion. I have a feeling that we cannot any longer continue with the freedom of the seas in the context with which it has been operating over the past hundred or so years. We are actually entering a period of very significant transition, a transition that will lead to exclusive rights, to the right to dispose of resources that were formerly included under this concept of freedom of the seas.

There are three primary objectives that we have to face during this period of transition. The first and primary and most fundamental objective of all is that of achieving as peaceful and orderly a transition as possible, and we must therefore do everything we can to reduce the potential for conflict. The second is the efficient production of seas' wealth, and the third is the use of the seas' resources for the benefit of mankind. I put that objective as third not because of any discounting of any importance of it, but because I do not think it can be achieved unless we achieve the other two objectives first.

The transition, as I see it, is inevitable. It is occurring because the value of the resources is increasing, and as these increasing values occur, there are increasing demands for someone to acquire exclusive rights to dispose of these resources. We cannot expect really to prevent these attempts to acquire these exclusive rights to dispose of resources. The increasing values are obvious.

I think, with respect to minerals of the seabed, that it is also obvious that there is a necessity for exclusive access available to the producers of these resources. The fishery problems are also becoming very significant. The global output of fisheries is not increasing anywhere near as rapidly as it has in the past. In fact, the 1969 world catch was less than it was in 1968. We cannot expect to continue to increase at anywhere near the past rate, the total world catch of fish, and yet there are increasing amounts of effort being applied throughout the world. As these increasing efforts are applied and resources do not expand at the same rate, the values of the resources increase very rapidly, and that then leads to the demand for someone to acquire exclusive rights to those resources. We have a history of this in a number of different kinds of arrangement being made today, and that are proposed for the future. National quotas, for example, may be one way of dealing with the control of the cod in the North Atlantic. It is a technique for acquiring some kind of exclusive rights. But at the same time, it is a threat to

peaceful and orderly developments. All the tendencies are to acquire some degree of exclusive rights to dispose of these resources.

The problem we are facing is essentially a question of who gets what, and this is not something that can be answered very readily in either of its terms. The "what" is very difficult to determine, both technically and scientifically, in terms of the values people seek from it. For example, in fisheries the "what" may be defined as a certain amount of fish. It may also be defined as an economic return from fishing. It may also be considered in terms of the use of the fisheries as a source of employment opportunities. And there are various other values that people seek from fisheries.

We also do not have any answer to the question of "who." That is what we seriously are engaged in now. It could be the coastal State; it could be some form of regional community; it could be an international agency; but whatever agency it is, whether it is the coastal State or some sort of more global agency, that agency is eventually going to acquire exclusive rights to these resources; and that I think is not at all in keeping with the tradition of the past 300 or so years in the freedom of the seas.

Auburn: In Article 12 of the Draft, there is a definition of the International Seabed Area. Firstly, I would like to ask where Professor Sohn puts the boundary between the ISA and the water above: water above being the high seas. The second question is as follows: under Article 4 of the Draft, the ISA is reserved exclusively for peaceful uses. What does this mean exactly?

The third question is, in Article 40 (j) of the Draft, the Council can issue an emergency order to prevent "serious harm to the marine environment." What is "serious harm to the marine environment?"

Sohn: The first question I really do not understand, but I thought that people usually have assumed that seabed and the water above are easily separable, as the land and water do not mix; therefore it is not necessary to establish a special boundary. Of course, there are some things that jump from the seabed into the ocean above. There has been some question whether those marine resources are resources of the seabed or of the sea, and I think that ought to be decided either in accordance with the Geneva Convention or on the basis of a new convention; but this is a problem of special regulation of a particular issue.

Your second question related to peaceful uses. Again, I think this is a term of art which we have been using for some time in other areas—the Antarctic, outer space, and others. I think it should be applied to this area in the same way, meaning what is excluded are non-peaceful uses, and the non-peaceful uses connected especially with a violation of Article 2, paragraph 4, of the Charter of the United Nations which Mr. McDougal mentioned.

The third question is again a question of definition —what is meant by a "serious harm"—and this has to be developed by the jurisprudence of the international authority as it has been done with respect to similar terms in domestic law. It cannot be defined with precision at once, and if you should try to do it, you will soon discover that you have missed an important part of it. I have just gone through an exercise of trying to define some rules of the law relating to the immunities of foreign States before national courts, and after a year and a half of hard work, I thought I got some very good definitions; but three cases which arose within the last month all dealt with questions not covered by the definition. Consequently, I am now quite leary about trying to make too precise definitions. You have to use as general terms as possible, and believe in the wisdom of the authority that you establish to define these in each concrete case.

Gauden: I should like to express my appreciation for the brilliant talks we have heard today from the panel and from Professor McDougal. One thought came to me during this morning's session, and it is this: have we considered the wisdom of defining a territorial sea differently for different purposes? It might be three miles wide for the purpose of transit, and it might be 50 miles wide or 200 miles wide for the purpose of fishing or for the purpose of extracting mineral resources. All of this complicates the problem, as Professor McDougal indicated, but I think perhaps a somewhat complex system is required by a relatively complex subject. This is just a suggestion that I am throwing in for whatever value it may have.

McDougal: The end result of Professor Gauden's suggestion would be a series of contiguous zones. The concept of "contiguous zone" has been used to make the discriminations that he proposes. The historic reference of the territorial sea has been to a comprehensive, exclusive competence to make and apply law for all purposes, qualified only by innocent passage. If the general community created "territorial seas" for different purposes, it would in effect be equating the concepts of the territorial sea and of the contiguous zone. The great poet said that a rose by any other name smells just as sweet. I would abide by whatever name you choose.

deSoto: Dr. Seaton has told us that we do not know with precision the position of the People's Republic of China on the continental shelf. I have relatively fresh information. This is not because I have a special relation with the People's Republic of China. My source is the *New York Times*, which quoted the New China News Agency as reporting a claim by the People's Republic of China to ownership of the resources of the continental shelf. In addition to that, I might say that in a recent communique by high officials of Peru and the People's Republic of China after trade negotiations—I do specify "trade"—China expressly endorsed the principle contained in the declaration of Lima on the law of the sea whereby States may establish their limits in order to exploit the resources off their coasts.

Rothschild: I would like to comment on the concept of agreement or nonagreement as a single example of the kinds of problems we are facing; the striking requirement for analysis; and some actions that need to be undertaken with as much rapidity as possible. My primary stimulus for making these comments is the quite evident urgency with which these actions are needed, and I am hopeful that the participants in this Institute will consider my comments in this light.

First, with respect to the basic theme of the Sixth Session, it is clear that there is little agreement on whether there will or will not be agreement at LOS 73. Herein lies the problem. Agreement has not been properly defined. In considering agreement and nonagreement we can ask, for example, does agreement mean that all parties agree on all issues? Does it mean that the parties agree only on some issues; if so, what proportion of agreeable issues constitutes agreement? Does it mean that there are no voting stalemates? Does it mean that all parties agree on major issues? Who is going to define which issues are major and which are minor?

I am not even sure that agreement is a desirable feature. What benefits to mankind do we have to give up to achieve agreement? Furthermore, the orientation toward agreement and nonagreement certainly focuses the attention of many students of law of the sea upon LOS 73, and as we have pointed out elsewhere (see the purple IMSAP document) it is very important to place LOS 73 in the perspective of simply being an event in the time-stream. Will LOS 73 occur? What will its relative importance be? Does it divert attention from the everyday, continually changing dynamics of the ocean law? The point I am trying to make is that the level of discourse on the law of the sea most likely will not be of much use toward obtaining a more satisfactory order in the oceans of the world unless the language (e.g., "common heritage of mankind," "freedom of the seas," "negotiation," "accommodation," etc.) and the problems are better defined and formulated and brought into much clearer focus.

All of this suggests the need for a different approach. We need analysis. A model or models are needed which will identify, not necessarily in quantitative terms, the nature of the issues and the likely consequences of any specific action on these issues. We need to concentrate our attentions upon legal arrangements that maximize benefits to mankind, and we need to better define what we mean by "maximize" and "benefits." We need to better identify the experts and the professionals in the area and facilitate the focusing of their involvement and attention upon these problems. We need to discuss in some detail the objectives that we are striving to obtain. We need to develop a rich set of alternatives for achieving these objectives and for adjudging the alternatives. If we want to develop a legal regime that will really benefit mankind, then it is imperative that we make the proper decisions concerning the law of the sea. It is my opinion that these proper decisions can only be made if all negotiating parties really appreciate the likely consequences of the decisions that they make.

It is quite clear that we do not now have an institution (*sensu latu*) that can shoulder the burden of the needed analysis. We need an institution that will use available advanced technology to cope with the "advanced technology" that so many speakers have referred to in their presentations here. The advanced technology that I refer to involves model development, interpersonal communication, computer techniques, operations research, etc. We can no longer attack our contemporaneous problems with the almost entirely verbal techniques of yesteryear.

Finally, with respect to actions, we need to actually develop or implement the institution or institutions that engage in an effective way in three activities on a more or less long term basis. (I think that considering this problem just in the context of LOS 73 is a delusion.) First, there are now a large number of studies which are virtually applicable to the law of the seas problem. I would like to see someone survey these studies and to provide advice and facilitation to bring these into direct bearing upon the question of legal arrangements in the ocean. Second, I am not sure that the general community of individuals dealing with marine affairs, at least those that I am in contact with, are generally aware of the nature of the problems that are facing the drafters of new law of the sea. I think these problems need to be generally exposited to the broad community of individuals which have an interest in ocean affairs. This conference is doing an excellent job of this, and I would hope, in view of the urgency of this situation, that a much more accelerated publication date of the Proceedings could be obtained as well as achieving its wider distribution. This will be useful to demonstrate the nature of the problem even though all of the pertinent information cannot be dispelled in this manner. Finally, a host of analyses relevant to law of the sea problems is needed. These analyses should be oriented toward determining the consequences of any likely decisions that might be made with respect to the law of the sea. I do not think that it will be useful to parcel these analyses out in small bits to individual investigators. What I would like to see is the Law of the Sea Institute or the IMSAP Panel obtain a large amount of funding from some foundation(s) or governmental agency(s). I would then like to see perhaps four or five large contracts or grants let to various educational institutions or a governmental entity(s) to conduct these studies. I would suggest that one approach might be for either the Institute or IMSAP to (1) obtain funding, (2) participate in the request for bids, and (3) make advice on rewards. The principal investigator and his institution would be responsible for completion of the study tasks.

I realize full well that all of the things I am suggesting will require additional funding, or at least a re-

allocation of funding. When we think of the stakes that are involved and some of the alternative uses of money, then a large amount of funding is not unwarranted. We are, after all, talking of an international order for the world oceans, a mechanism to provide international stability and an important substrata of natural resources.

al-Qaysi: I am not quite sure whether I understood all that our colleague has been driving at, but I am inclined to agree with a major portion of what he said. At the beginning of my statement I said that three points have to be taken into consideration in answering the question of prospects for agreement. These are: first, to identify the opposing contentions; second, to analyze the conflicting interests these contentions represent; and third, to envisage legal formulae that can reasonably and equitably balance the conflicting interests. I said legal formulae, because obviously you have to control behavior by legal norms, that is to say measures of control, whether in any particular internal situation of a State, or in the international arena.

It seems to me that this cannot be done in a matter of 20 minutes or even days; but whether it is necessary to have an institution to do it for us, as I understood our colleague to say, is another question. I am sure that we all have to realize that we are working on an international level represented by various States. States identify their interests, on the basis of which they put forward various contentions. When they negotiate, they pitch their interests one against the other on the basis of the conclusions they have reached. Given the observations I concluded with in my statement, I think there is a prospect for agreement, provided the criteria I outlined are kept in mind.

I must confess that I have grown up in my legal career studying the law of the sea with great admiration for what Professor McDougal has written. I have listened with great interest to the framework he is trying to put us into at this stage while we are approaching 1973. One thing I would have liked to hear from him is some insight as to how we move about the establishment of the international regime and the machinery. He has dealt extensively with the rules of the law of the sea and their traditional framework, regarding them as an inherited common heritage of legal norms. If I remember correctly, Professor McDougal said that until we approve the international regime, we should continue to adopt the traditional framework and respect the present legal norms. But what insights would he provide us in relation to the international regime and machinery? As we all know, this is a new field in which we have inherited no historical heritage. This field has aroused so much interest, and it is linked up to a limit with what we have inherited of the legal norms of the sea. What sort of advice could Professor McDougal give us in this connection on the basis of the traditional framework of the law of the sea he put forward before us?

McDougal: Mr. al-Qaysi has given me an assignment for which, I confess, I am not really prepared. As I indicated, I have just moved back into this field. I have not had opportunity to study the question of a new organization as much as I would like. We badly need the kind of study that the questioner from the floor was calling for. It is the responsibility of organizations like our own, the universities, the great private foundations, to perform an intelligence function and to inform the officials, the government people. As professional intellectuals we have not done our duty. We have not, of course, had the necessary resources. There are many reasons why we have failed.

I would want much more information than I presently have even to begin to make recommendations about the outlines of a new organization. I will say one thing though: you can have an international law protecting the common interests of all with varying degrees of explicit organization. What we have inherited is a largely unorganized, inclusive use. I did not intend to suggest that I approve of the balancing of interests only until we can get an agreement on new organization. Even the most organized use will have to continue to balance and accommodate interests. No organization, no revolution, will get rid of the necessity for balancing and accommodating the different inclusive and exclusive interests. The question is simply what is the best way to do this.

With respect to the seabed, I think the probabilities are that much more intense organization than we have had in the past would be much better. The way to plan for such an organization would be to begin to lay down certain guidelines. Participation in such an organization should be both democratic and responsible. Universality has to be balanced with capability and willingness to serve common interests. Specification of the purposes of such an organization should be explicitly in terms of common interests, with rejection of special interests. There should be no more organization—structures of authority or agencies—than necessary to be economic. Parkinson's law should apply to all new creation. The organization should be accorded enough authority and effective control over resources to carry out all necessary functions in supervision, regulation, production, and distribution. In determining its procedures, emphasis should be upon persuasion and economy, with a preference in favor of majority vote. I do not think minorities should fix policy for the whole community. The failure to take a decision may be just as much a making of policy for the whole as taking a decision. I could run on, but I confess I do not come to you with any blueprint. I have not really studied the blueprint for which my colleague, Professor Sohn, is partly responsible.

Wolf: My name is Atwood Wolf, and I would like to make a comment inspired by Francis Christy's remarks concerning survival of freedom of the seas. I am perhaps unfortunately old enough to remember something called the Liberty League back in 1936. It took the position that the substance of the New Deal

legislation inspired by President Roosevelt meant the death of freedom in the United States. There were, of course, two responses to that allegation. The first was a simple nod. The second was to the effect that if that be the case, let us abolish freedom; legislation is more important.

I would suggest that Professor Sohn's approach this morning is somewhat more realistic. In any conflict which might exist between divisional doctrine and the freedom of the seas, the current notion of the seas is an important notion of mankind. The choice is not between freedom and a common heritage of mankind, but rather a choice between the effort to achieve a balance between regulation and the need to preserve a measure of agreement, or non-regulation.

Turning to questions, I have two for Dr. Seaton. If my memory serves me right, the report of the consultative group which met in Ceylon in January, 1971, indicated that an overwhelming majority of the States represented at that conference found the concept of the 12-mile limit acceptable. In view of the fact that Dr. Seaton suggested today that while the European States, east and west, might uniformly support the 12-mile limit, the vote in the Afro-Asian bloc would be shattered. I wonder if there is any indication since January of the weakening of the agreement among the Afro-Asian States?

My second question relates to the work of the forthcoming 1973 Conference on the Law of the Sea, and I would venture to ask Dr. Seaton whether he envisages the drafting in the course of this Conference and any adjoining conferences of parts of a single convention dealing with the law of the sea, or rather the drafting of a group of conventions dealing with various aspects of the law of the sea—the procedure that was followed in the 1958 Conference?

Seaton: I have just been refreshing my memory on the proceedings at Colombo. With respect to the first question, as to the discussions on the territorial sea and the 12-mile limit, I do not know whether one can say that the overwhelming majority of States found the 12-mile limit acceptable. The AALCC has set up sub-committees and working groups to discuss this matter, and the subcommittees will report at the next meeting of the AALCC which will then study the report and come to a final decision. No final decision on limits, or on any of the other questions of the law of the sea, has been taken by the AALCC.

One might also note that the AALCC has a very small proportion of African members. It has at present no African members from the former French colonies. Even if the AALCC had expressed an overwhelming opinion in favor of a 12-mile limit—and I have suggested that it has not yet taken any decision on the matter—even if it had expressed such a preference the preference would have to be viewed in terms of the very small representation of African States; not to mention the fact that the AALCC as preconstituted does not include all of the States of Asia and particularly some States with huge populations.

With respect to the second question, it is very difficult to envisage what might be the result of the forthcoming Law of the Sea Conference, whether there would be one single convention on the law of the sea or a series of conventions. Probably the problems involved are so complex and delicate that it might be considered better to deal with them in a series of conventions. However, I believe it is a bit too early to predict what might be the results. If I might, perhaps I will venture an opinion on what might be achieved during the July-August session of the UN Seabed Committee. Probably one might expect a number of proposals to the next General Assembly. These proposals might be in the form of a single set of draft articles; or if agreement on a single set of draft articles is impossible, there might be a number of alternate drafts before the next General Assembly. This is probably optimistic; it is very difficult to envisage or to predict what might be the result of a 1973 Conference.

Njenga: My name is Mr. Njenga, from the Ministry of Foreign Affairs, Kenya. We have had a very interesting and enlightening discussion on these issues. I would like to add a few words to what has been said about the AALCC on the issue of territorial waters. It is true, and I agree with Dr. Seaton, that no final position was taken in this matter. I would, however, like to add that while it is also true that interest was expressed in favor of 12-mile territorial waters by many delegations, the majority were of the view that for 12-mile territorial waters to be acceptable it must be subject to a further undefined zone, which would definitely be more than 12 miles, and be known as an economic zone. Within that zone the coastal States would have control over fisheries, pollution, and conservation of the marine environment. No specific limit was proposed for this additional economic zone, but several delegations expressed their views that a zone extending to 200 miles for economic purposes would be entertained and would be acceptable to them.

I would like to address one question to Professor Sohn on the American seabed proposals. I do not have the copy of the proposals here, but I understand that the limits of what is within the national jurisdiction under the seabed is proposed to be 200 meters. In addition there is proposed to be what is referred to as a trusteeship zone, also based on depth. Given the geographical distribution of the seabed over the continents, it is inevitable that such limits based on depth will give unequal distribution over the continents. Some countries would have an area of seabed within the national jurisdiction extending beyond 200 miles, while others will have relatively shorter continental shelves. Similar disparities will be encountered over the trusteeship zone if depth criterion is used. My question there is, has the United States considered a national jurisdiction and a trusteeship zone based on a uniform distance extending up to, say, x miles, plus

a trusteeship zone extending to *y* miles—in other words, uniform for everyone?

Sohn: I agree that this is one of the crucial issues before the Conference, and it is true that the United States has two limits: one of 200 meters, which is the minimum limit of the Geneva Convention, and for that reason it was put there on the theory that this limit cannot be reduced in any meaningful way at this time. If the Conference decides otherwise, however, and accepts a much smaller limit, I think this would be worth considering. On the other hand, I know that some States consider this limit to be an error. They would like several hundred feet more for various reasons, especially because there are some parts of the continental shelf which are on a lower plateau, sometimes as far down as 450 meters. There are pressures, therefore, going in both directions.

On the other boundary of the trusteeship area, again the proposal at this point is rather indefinite because there is still a big dispute among geographers where the limit of the continental margin lies and what is the best way of determining it. At the same time, of course, it is quite possible that as part of the bargaining at the next Conference some other limit or determination of limits might be devised, so I think again it is premature to decide at this stage where such a limit actually should be. This is one of the crucial issues to be decided as part of the bargaining on all the subjects relating to the regime of the sea; I think whatever might be acceptable to a large majority of States would probably be acceptable also to the United States. What is crucial is that there can be no clear delimitation between the area where there are absolute rights of the coastal States going to the maximum, and then another area where there are going to be absolute rights of the international community going to the maximum. I think most things in life fall into a twilight zone, and you have to have some type of area which Professor McDougal calls contiguous zone. Some people call it intermediate zone. We call it trusteeship zone to try to devise a compromise between some rights of the coastal States and some rights of the international community. I think you probably cannot avoid them. The only questions are where the boundaries of this twilight zone might be, and also what is going to be the delimitation between the respective powers of the international community and the coastal States.

With respect to the second question, it is possible that some of the suggestions which the United States has made might not be accepted; but I think the principle itself of having this kind of zone in which the rights of the two principal interested parties are properly considered would be probably the necessary basis for a solution.

Popper: I would like to come back just for a moment to the special fishery limits to which Dr. Seaton and the other gentlemen have referred. I was interested and pleased to hear in Dr. al-Qaysi's presentation the expectation that whatever is done about fisheries limits needs to be supplemented with agreements on international action with regard to conservation. This I think is important if one sets the ideals of the common interests of countries. My organization is particularly interested in two of the objectives enumerated by Dr. Christy, one being to get the best possible and greatest use for the living resources of the sea, and the other to insure that they are applied for the benefit of all mankind, particularly of the developing countries. If one has these objectives in mind, one needs to remember that fishery limits by themselves are not adequate to achieve them.

From the conservation aspect, because of the great diversity of living resources, even a three-mile limit may be too wide for a particular resource. Some resources would be protected sufficiently by a two-mile limit, whereas on the other hand a 200-mile limit is inadequate for the resources of the continental shelf; and any contiguous zone is inadequate for the conservation of the tuna resources of the same ocean or any other ocean. In any event, the idea of contiguous zone is not adequate. I am not saying that it is unnecessary, but that it is inadequate for the achievement of that objective.

Similarly, and perhaps even more so, was the objective of ensuring a better share of the yields of these resources for the developing countries. For one thing, it is no longer true—it is becoming increasingly less true—that the developing countries tend to gain by an extension of fishery limits in general, and developed countries tend to lose. If one really wishes to insure that developing countries get a greater share, one will have to adopt additional principles which will insure such a share; and as I had occasion to mention on another day, there are some indications that, at least regionally, groups of countries are coming to recognize this, and are prepared to adopt principles of fishery management which will go directly towards increasing the share of the developing countries in the international organization regime.

In this connection, it may be of interest that at a recent consultation held by African States with regard to the fishery resources of that continent, they came to the conclusion, and I quote from the report, that the reason for the situation which they describe—namely, that Africa plays a very small part in the harvesting of the resources off its coast—was recognized to be one of a fishery so lately emerging in industrialization, hampered in its development by lack of vessels and critical facilities in general, and by the support coming in the marketing systems and processing technology as well as the skill of personnel.

You will notice that the emphasis here is not at all on the fishery limits; they come in a subordinate place. In the report, however, there is I think a very significant pronouncement which says, "emphasizes its belief in the duty of the developed countries exploiting the

fishery resources in the waters around Africa to assist African countries to develop their fisheries." I think here is an idea that is very well worth considering which indicates that a right of access to a resource which is also accessible, but perhaps not yet exploited, by developing countries carries some obligation to assist developing countries in making those developments.

At this late hour I will not make any further points except to briefly mention that one point Dr. Christy made seems to me to be not quite accurate. He said that the allocation of national quotas in a fishery is tantamount to exclusive rights, and moreover that such an allocation of national quotas was contrary to the first of the objectives that he mentioned. I think he is mistaken. Allocation quotas are not exclusive in a sense that they need to be fixed at all times.

Joye: My question is directed to Professor Sohn. At the 1969 Law of the Sea Institute held on this campus, Professor Sohn offered a suggestion for setting boundary limits for the internationalized zone which I thought had great merit, but which I have heard very little of in subsequent months. Basically, his suggestion involved a system of graduating payments which automatically established a boundary line for the international area. I may not be quoting the exact figures he used, but as an example, he suggested that for all operations occurring beyond territorial waters, an operator would pay a penalty of five percent of the gross value of all resources recovered for each 100 feet of depth, or perhaps for each additional 25 miles seaward, until he reached an area where it no longer would be profitable to recover these resources. One of the hidden benefits of a suggestion such as this is that it creates an automatic buffer zone between territorial waters and the internationalized area which may eventually become an important part of an international regime.

The question I would like to ask is first, if Professor Sohn could give a very brief summary of the suggestion he made in 1969, and second, I would be interested in his opinion as to how this suggestion would relate to the seabed situation as it exists today.

Sohn: Yes, I made such suggestion in 1969. It applies, as you said, to some kind of gradual increase in the revenue that would accrue to the international community depending how far down and how far away from the shore you go; and it can be done on any kind of a basis that you wish. Something similar was prepared by Ambassador Pardo when he suggested a 200-mile limit. He said that within those 200-mile limits there might be internal limits or ways of sharing revenue. There have also been some suggestions that you might start applying revenue provisions even at the 12-mile limit and go from there depending on the distance from shore. The idea is not dead, but I have to admit that it has not been endorsed yet by anybody.

Knauss: In listening to Professor McDougal's excellent commentary, I became very uneasy. Like him, neither do I like to see three hundred years of traditional law of the sea lightly dismissed. However, there have been times in the history of mankind when, if we have not started all over again by revolution, we have at least rapidly accelerated the rate of evolution. It seems to me this might be such a period with respect to the law of the sea. Nobody can perceive the future. But as a scientist and technologist, I am convinced that the kind of changes we have seen in the ocean in the last twenty years are going to continue. In fact I think the rate of change is going to increase. We are just beginning to see the technical revolution with respect to the ocean. I seriously question whether at least some of the traditional principles of the law of the sea will continue to be applicable under this revolution.

I should like to suggest that with respect to the 1958 conference on the Law of the Sea that the conventions were essentially outmoded, at least those relating to the continental shelf and fisheries, almost at the time they were written. This is one of our problems today. I think the Law of the Sea Conference should reexamine all the so-called first principles having to do with the law of the sea. It may turn out that what will be required is a somewhat revolutionary approach to the law of the sea, if we are to treat successfully the real problems I foresee developing for man and the oceans during the next thirty or forty years.

Orlin: Hyman Orlin of NOAA. The speakers have presented such momentous political, economic, and social problems that I hesitate to interrupt this trend by technical-scientific problems. But, having wallowed in the pollution of previous boundary definitions, I feel impelled to restate some facts which I and Sam Hortig, of the State of California, have presented at Law of the Sea Institute conferences in prior years. Speakers have referred to boundaries based upon depths and/or distances. Such absolute definitions are difficult, if not impossible, to delimit with modern technology. And, even if an absolute depth were attainable, there are probably many regions where depths of 200 meters, or any fixed depth, exist for many kilometers. For this reason alone, I would opt for a boundary based upon distance rather than upon depth. But, even here the distance chosen should allow for an error budget based upon the technological competence existing at the time of contention.

Panel: Review of the Prospects for Agreement

Andres Aguilar, Ambassador of Venezuela to the United Nations

Thursday afternoon, June 24

It is too early to predict, with any degree of certainty, if and when an agreement, acceptable to all or, at least, the great majority of the nations of the world, can be reached on the various questions at issue regarding the law of the sea.

At this stage of the preparatory work for the international conference scheduled to be held in 1973 to consider these questions, it is possible to express only a very general and preliminary opinion on the prospects of an agreement in the light of the basic interests and principles involved.

As it has been pointed out by the speakers we have heard this morning and the previous days, there are many issues with far-reaching military, political and economical implications, and on each one of them there are different and sometimes conflicting views among the States.

To review the prospects for an agreement in each of the issues will take more time than I have at my disposal. Moreover, previous speakers this morning made a very comprehensive and thorough study of these prospects. That is why I will confine my remarks to what I consider to be the main underlying question. But before doing so, I would like to state that I am speaking in a personal capacity and not as the representative of my country to the United Nations.

As I see it, the basic, fundamental question is an economic one, namely: Who is to own and, therefore, to have exclusive rights over the resources of the sea with all the political consequences of such ownership.

I hasten to say that this does not mean that there are not other issues: there is indeed a widespread and legitimate concern in the international community on the need for scientific research and on the need to protect marine environment.

It does not mean either that I ignore the concrete issues that are before the Preparatory Committee, namely the seabed regime and the issues concerning the continental shelf and the territorial sea.

My point is that the main issue is of an economic nature and that all the others—important as they are—are either peripherical in the context of the next Conference on the Law of the Sea—this is a case for scientific research and pollution—or subordinated to the basic issue.

If we take this approach, I believe we are in a better position to assess the prospects for a lasting agreement.

Now, in pure theory there are three possible answers to what I submit is the basic question: (1) the partitioning of the sea and its resources, living or non living, among all coastal States or, better, among all States, according to agreed criteria; (2) the agreement that the entire area is to be allocated to the international community, be it on a regional or on a global basis, to be regulated in accordance with an agreed regime, including an adequate international machinery; (3) to divide the seas between individual States and the international community, again on a regional or a global basis.

For the purpose of this presentation, I would like to concentrate my remarks on the third possible solution I just mentioned.

The first problem that this third possibility poses is the precise definition of the area under national and international jurisdiction. It gives rise also to the question of the regime, including machinery, to be applied to the international jurisdiction.

Now, if we assume that the position of the different States is determined by what they consider, rightly or wrongly, as their national interest, there are many conflicting interests that need to be accommodated or harmonized if the Conference is to have a real and lasting success. I do not have the time to try to identify the different views the States—or group of States—may have on this fundamental issue. We may assume safely that landlocked countries, to give an example, are—or should be in the light of their interest—in favor of an international area as wide as possible. Coastal States, on the other hand, will be for obvious reasons reluctant to part with what they now have or would like to have. States with valuable fisheries or other living resources near their coast—whether they at present make use of them or not—have views quite opposite to those that have highly developed distant fishing industries. States that have signed and ratified the Geneva Convention of 1958 on the Continental Shelf feel that there is no case for a revision of the essential provisions of that Convention, while others feel that the law of the sea has to be changed completely. We could go on and on pointing to the conflicting views that, in the light of their national interests, the different States have on this issue. But as I said before, there is no time for a full review of what these positions are. The conflicting interest of developed countries and developing countries needs, however, a careful consideration.

It is true that the interests of developed countries are not identical by any means. It is also true that the same can be said about the interests of the developing countries. But it is a fact that the developed countries, having the financial and technical means to exploit the resources of the sea, particularly those which require intensive use of both capital and highly sophisticated technology, would normally favor any arrangement that gives them the maximum return for their financial, scientific and technical superiority. For this purpose they would be, in principle, for keeping or

increasing what holdings they have under present norms and for dividing among themselves, wherever possible, parts of the seas. But as it happens that some of the areas which have potential riches will fall under the jurisdiction of developing countries, their interest may possibly be to have a rudimentary regime and a weak machinery that will allow them to have the lion's share with the blessing of the international community.

The advantage of the latter course is that it can be presented as a high-principled promotion of new concepts in international law.

The interest of most of the developing countries, on the other hand, lies in keeping or increasing what they already have and, if there is to be an international zone, to have a very comprehensive regime and a strong machinery.

What are the prospects of agreement in view of these conflicting interests? In my view, the answer is this: the chances of agreement depend on the clear understanding and honest presentation of the issues. Nothing is to be gained by a misrepresentation of the truth. A lasting and successful settlement requires a good compromise, that is to say, one that gives reasonable satisfaction to all the parties concerned.

Davoud H. Bavand, Second Secretary, Permanent Mission of Iran to the United Nations

Thursday afternoon, June 24

It is a truism that on the issue of the law of the sea, any successful multilateral initiative must reflect and adequately accommodate the interests of all nations. If new agreements regarding the oceans are to provide long-term stability, they must take into account and satisfy the various interests which have caused and could cause instability.

Within the last two years, indeed, we have moved somehow towards this collective objective. In all sincerity, I believe that we have passed the stage of diametrical doctrinal controversies and have entered into the stage of legal consensusness. Of course, we are still far from agreement, and still the road before us is arduous and too far away from unanimity; however the existing signs are encouraging to the extent that we could claim the following understandings:

1. Technological developments have drastically changed the nature and intensity of the uses of the sea in all its dimensions.

2. The immediate consequences of this development have been twofold: first, ocean space and its resources have increasingly become the focus of economic and military considerations; second, improper and irrational uses of the sea have turned out to be detrimental to the ecological balance of the marine environment.

3. It has been almost agreed that the existing rules of law of the sea are inadequate to deal with evolving problems of the ocean space.

4. Although on substance and scope of alternative approaches we are still far from agreement, we have however succeeded in developing consensus that the seabeds provide the greatest opportunity for seeking new directions in the law of the sea. This consensus is fairly reflected in the Declaration of Principles approved by the 25th Session of the General Assembly. This Declaration not only provides guidelines for our future operations and sets forth modalities for the development of the Convention on International Regime and Machinery, but also tacitly took the first step toward rectification or redefinition of some other areas of the law of the sea. For instance, in the preambular paragraph, it refers to the existence of an area of the seabed and ocean floor outside of national jurisdiction to which the draft set of principles applies. It implies that the area of national jurisdiction could not be an open-ended one, as some are inclined to interpret it on the basis of the exploitability clause of the Continental Shelf Convention. In other words, it has set up a subjective limitation against unreasonable claims of States on the areas of common heritage.

In its operative paragraphs, it not only challenges the applicability of certain principles of the freedom of the seas, but also questions the continual validity of other doctrines of international law in this respect. In operative paragraphs 2 and 3 it asserts that the area of seabed is susceptible to neither public nor private appropriation and is to be exempt from the assertion of sovereignty and sovereign rights. It further implies that such claims find no warrant in those doctrines of international law that developed to support the acquisitions of title to territory by occupation, prescription or the like. It follows that the floor and its resources are not severable; what holds for the floor holds for its resources also. In other words, it implies that property rights and flag approach have no validity whatsoever in this area of the world.

As I mentined above, this Declaration has recognized the necessity for urgent redefinition of the areas of national jurisdiction, in particular the continental shelf area. And as I mentioned, there are implicit references within the Declaration towards that direction.

It has been generally agreed that there is a direct relationship between the definition of the area of the seabed and the outer limit of the continental shelf. The controversial question of delimitation results in fact from the ambiguous character of the 1958 Geneva Convention. In the Geneva Convention there exist three distinctive and at the same time interrelated elements which determine the scope of the continental shelf. These are elements of adjacency, isobathic and exploitability. The phrase "adjacent to the coast" appearing in Article I of the Convention appears to be rather vital in the context of jurisdiction, in the sense that it has set up a subjective limitation to the sea-

ward advance of the national claims. On the other hand, the exploitability criterion appears to be subject to the limitation of adjacency. But "adjacent area" has never been legally defined, and accordingly it does not appear as an objective barrier to the extensive claims of coastal States. Besides, the question of what is adjacent cannot be determined with any exactitude in terms of coastal interest. In the context of States bordering the ocean, "adjacent" might mean something different from what it would mean in an area where several States have interests. Accordingly, States have felt quite free to extend their jurisdiction far beyond the 200-meter isobath through national legislation or, perhaps more importantly, through the issuance of exploration permits.

However, in the last three years certain academic circles, encouraged by the decision of the International Court of Justice on questions of the North Sea continental shelf, set forth a new geological definition of adjacency. Their interpretation is that "the sovereign rights of coastal nations to explore and exploit their legal continental shelves extend to the limit of exploitability existing at any given time within an ultimate limit of adjacency which encompasses the entire continental margin." Of course this interpretation, which has been a hurried reaction against the development of the notion of the common heritage of mankind and operations of the United Nations with regard to the seabeds, has not found encouraging response among the interested circles of the world. Still, at this crossroads of opinions, the 200-meter isobath has been suggested as the sole criterion for the delimitation of national and international seabed areas.

A major difficulty with a limit based on depth alone —whether 200 meters or more—is that States would be allotted submarine regions of varying size, some gaining huge areas and others relatively small areas. That approach, which is highly discriminatory in my view, leads to extremely unequal treatment. In fact, one of the basic reasons for the insertion of the exploitability clause in the Geneva Convention was to offset the discriminatory character of the 200-meter isobath. In other words, the exploitability clause was added principally at the behest of countries that had no geological shelf and whose coast dropped into deep waters. Since the definition using the 200-meter isobath would give them nothing, the exploitability clause was added to give them equal treatment in principle.

If the criterion of a 200-meter isobath is appended as part and parcel of a comprehensive design on the whole question of international seabed area and continental shelf jurisdiction, then it would serve to the greater degree the interests of those countries which have either coastlines and continental margin areas of moderate size, or those with substantial coastlines and continental margin areas. However, it would be less serviceable to the land-locked, shelf-locked, and countries with limited shelves.

Thus, in order not to revert to the intrinsic problem of the isobathic criterion, it might be logical that a modest lateral distance be added to the 200-meter isobath. Without setting a precise width in the distance criterion, I believe that it would be enough to take account of the technological advance and legitimate rights of coastal States. It has been suggested that the distance criterion might even be useful for the solution or determination of fishery zones.

Another important issue included within the mandate of the future Conference on the Law of the Sea is fishing and conservation of the living resources of the high seas, including preferential rights of coastal States. As a result of drastic changes in the nature and intensity of these uses of the seas, none of the proposals suggested in the two previous Conferences on the Law of the Sea have maintained their validities. Accordingly, new and radical approaches are required to resolve the problem. A national system of fisheries conservation, management and exploitation is required in the common interest of all concerned.

During the last ten years, due to the rapid growth of the economic stature of the fishing industry, a host of new nations have entered the commercial fishery. Consequently, out of the emerging conflict of interests, a new trend of legal and political controversy is flaring up in the international scene; on the one hand there are distant-water States whose fishing fleets, equipped with the latest appliances for locating and catching concentrations of fish, range the seven seas in winter and summer, often accompanied by factory ships. On the other, there are those States who have no equitable sharing in the wealth of high-seas fisheries and are interested in reserving to their nations the living resources of their adjacent waters. We have no doubt that if effective multilateral action is not taken, States would revert to national panaceas.

Any multilateral approach for the solution of the fisheries problems, however, needs to strike a new balance between distinctive interests such as the distinction between the application of old techniques and of new techniques, and the distinction between States in earlier stages of development and those having fully developed and diversified economies. It is only the realization of conflicting interests that will enable States to bridge the existing gap on the question of fisheries.

While we realize the complexity of the problem, we are nevertheless wary of some of the highly complex remedies that have been proposed in the past, and which may be proposed for consideration by the next Conference on the Law of the Sea. We therefore must consider that any proposal for the solution of the fisheries problem must be realistic and in accordance with the legitimate needs of coastal States; a sufficient degree of control in the conservation of living resources of the sea lying off the coast must, of course, be commensurate with the State's socio-economic needs.

On this question, there now appears to be a tacit understanding that the jurisdiction of the coastal State over coastal fisheries need not necessarily be tied to

the sovereignty of the coastal State over its territorial waters.

Yet, the road before us is still arduous and far away from unanimity on these questions. Some States consider that there need be no universal maximum limit for the area of national jurisdiction, and suggest instead regional solutions to these problems, and propose that each State should be free to establish the limits of its maritime sovereignty. On the basis of reasonable criteria, some States wish to impose a single limit for both maritime sovereignty and all forms of maritime jurisdiction.

Not to question the validity of the one and the truism of the other, we believe that on the question of fishery limits, there is probably considerable merit in a single jurisdictional boundary line for all kinds of exploitative activity—mineral, fishing, or other. This suggestion has the virtue of attempting to solve the legitimate coastal States' economic interests. However, in the light of the different sizes of the shelf and in order not to be trapped in a new web of complication, we believe that a modest unified distance criterion could be adopted for this purpose. The virtues of this approach are several.

First, it tallies with the claims of the great numbers of riparian States with enclosed and semi-enclosed seas.

Second, it is commensurate with demands of countries with narrow and inaccessible shelf areas, who have turned for economic compensation to the living resources of the superjacent waters.

Third, it goes with the needs and interests of developing countries, since they do not have equitable sharing in the wealth of high seas fisheries.

Fourth, the jurisdiction which nations assert on seabeds tends to spill over into the waters above; presumably many government officials have noticed this trend. Nations find it necessarily logical, as long as they have had the sovereign right to explore and exploit the seabeds in any event, to regulate navigation around fixed installations. While controlling pollution from drilling rigs, they may argue the need to control other kinds of pollution at the same time.

If this were to be accepted, then coastal States would have two or three jurisdictional lines: first, sovereign jurisdiction lines such as the 12 miles territorial sea; second, exploitative jurisdiction; and third, conservational or ecological jurisdiction.

The intensive use of sea and ocean space in all its dimensions, in particular the ever-increasing application of technological development for the exploitation of the animal and mineral resources, has raised problems that are new either in geographical, geological and ecological terms or in economic, social, political and legal contexts. One of the growing problems of our time has been the increasing legal gap between ocean space and the enclosed or semi-enclosed seas, to the effect that all the rules established for the oceans cannot be automatically applied to these areas without disadvantage to the riparian States.

Geologically, often a shelf-locked area is a prolongation or part and parcel of the continental land mass surrounding it. In other words, there is unity and continuity between the continental land mass, the continental shelf, its superjacent waters and animal resources. As a whole, they create an organic unity.

Biologically, unity between land, shelf, water and fish has produced an ecosystem or a biological circle. Fish are most commonly found in commercial quantities in the low-depth or relatively shallow waters above the continental shelf. It is in these waters that the light, temperature, nutrient elements, and other factors combine to produce the most favorable ecological conditions. In the case of the ocean, the doctrine of biological unity is confined only to the areas adjacent to the continental land mass; however, in the shelf-locked marginal or enclosed seas where the depth of water in most parts of the area is low and shallow, the whole area falls within the complex of an ecosystem.

Economically, the whole breadth and length of these areas fall within the field of socio-economic gravity of the riparian communities, both in the traditional sense and in modern concepts. Traditionally, the coastal people have been dependent on the sea for their livelihood, particularly where barren lands and unfavorable climatic situations deprived them of farming. In other words, the icthyological wealth of these seas stand in contrast to the impoverished sun-scorched soil of the coast which makes farming impossible except by expensive artificial irrigation. The coastal people have been forced to live from fishing because they have no other means of subsistence. The fertility of the seas is offered by nature as a compensation for the desert provided by the climatological conditions on the coast. Today, more than ever, the riparian peoples are deeply dependent on the resources of the sea for their living and economic development.

In the light of ever-increasing dependency of the riparian States upon the animal and mineral wealth of their seas, it is quite anomalous that their common living resources are subject to continual plundering by distant-fishing States which have virtually transformed fishing from harvesting to mining, and as such have caused serious economic dislocation in the regions. Accordingly, in recent years and in many parts of the world, the riparian States with enclosed seas, through common agreements and declarations, have made known the distinctive legal characteristic of these areas and their legal analogousness to the internal waters, as far as the question of fisheries is concerned.

It seems quite natural that in the future Law of the Sea Conference the ever-increasing legal gap between the ocean and enclosed or marginal seas is to be taken into serious consideration, to bring about an end to the deficiencies of international law in this respect. It seems

anomalous that whereas international law has developed an effective system of management for the mineral resources of the continental shelf and the sedentary species of fish on the shelf, it has not yet developed an equally effective system for the management of the "free-swimming" fish in coastal areas. Indeed, this is a task with which the Conference has to deal.

Thomas S. Busha, Intergovernmental Maritime Consultative Organization, London

Thursday afternoon, June 24

During these four days this sixth conference of the Institute has revealed what an immense reserve and resource of specialized material, and what a web of interactions, the law of the sea truly is. I have tried to imagine a single plenipotentiary conference that could arrive at agreed positions, even positions on the matters we have had brilliantly arrayed before us in these excellent papers, and have found that it gives the imagination a fair stretch.

Agreement is nonetheless an ultimate prospect which I think we may affirm. My own special concern is with the legislative and institutional means by which that prospect may be realized, perhaps more so than my fellow members on this panel. I have in mind what Dr. Wooster described the other day as the transformation of organized responses; indeed the transformation of organizations themselves may be needed to deal with some of these problems. Dr. Wooster did not give us his ideas of how we might do this job, but I fully agree that it must be done. I have also in mind the more immediate needs to which Ambassador Pardo referred in the close of his speech to the Seabed Committee last March. He suggested then that wider and more formal arrangements for coordination than have hitherto existed might be necessary among the agencies of the UN family. He was talking about the preparation for the 1973 Conference, but the concept could surely be carried much further.

However crude the device of diplomatic conference and treaty—and we have heard an interesting discussion of that aspect—it is the device that we shall have to use. This device also is entrenched and formalized, and any new constitution-making may prove to be affected in this respect as much by the past as by the future. But if the rules for arriving at agreement and the strategies of using them have somewhat hardened in the mold, it does not, as I see it, hinder us in making novel use of what already exists in the way of such rules and strategies in the United Nations system.

I refer to certain facets of the involvement of the United Nations and its agencies, including the secretariats and related bodies. For my part, I think we can more readily achieve agreement in this wide spectrum of problems if we take as much care with the means by which we move forward as with the substance.

Let me explain further. On the basis of what we have heard this week—and, of course, what follows is my own opinion—it seems that organizational transformation is indeed essential. As an approach to this transformation, I believe the 1973 Conference, and next year's Stockholm Conference as well, should be employed less as "legislative" enterprises than as the "constitutional conventions" where States may establish the principles, allocate the tasks, set down the projected time continuum for evolving processes of agreement, and, if necessary, prepare the international community for the "half-life" (the expression is Dr. Alexander's) of some of the decisions reached at stages in the span of that evolution. Next, I believe the time has come to optimize the use of such United Nations legislative machinery as has already been constituted. This must be done, in my opinion, with greater imagination than is currently being applied.

One legislative possibility that presents itself in these conditions of complexity is what you could call a polycentric UN treaty system. This concept would involve, for example, laying down the core principles in a single Law of the Sea Convention, and providing in that treaty that the detailed and systematic implementation of those principles should be the ingredients of any number of appendant or related instruments—annexes, statutes, codes: you can take your pick of name. The polycentric element would result from entrusting the development of these functional solutions severally to the appropriate new or existing organs and specialized agencies. The aim would be to provide for this detailed body of law a continuing evolution on the "nuts and bolts" level as a legislative process within the technical bodies capable of dealing with it inter-governmentally.

An impractical idea this may be; certainly one which would call, from the political point of view, for working out in much fuller detail. If anyone should know how difficult it is to deal organizationally with a multidisciplinary problem, it is an official of a United Nations specialized agency. Take pollution. As Dr. Wooster told us, there is a polluting flood of paper issuing on this matter from truly polycentric sources. The pollution problem in its inter-organizational context reminds me of what Mark Twain said about the Legion d'Honeur. He said: "Few escape it." In marine pollution alone, three future diplomatic conferences will go to work in less than that many years. Pollution of the deep ocean arising from exploration and exploitation will be dealt with in the 1973 Law of the Sea Conference, while pollution from other sources will be examined by the Stockholm Conference next year, and by a Conference to be convened by IMCO in 1973.

I say parenthetically that I was somewhat surprised at hearing from Professor Sohn this morning that an even broader spectrum of pollution problems will be dealt with by the Law of the Sea Conference than I had thought; but in addition to these three conferences, UNESCO/IOC, the FAO, and other organizations are dealing with and will be dealing (for this is a continuing matter for years to come) with marine pollution prevention and control.

Which of these responses by the international community and which results from them may be more entitled to fall under the rubric of "the law of the sea" than any other? I pose the question without having any answer. I can, however, give a reason or two for supposing that this essentially legislative activity will only with the greatest of difficulty and concerted determination achieve at one stroke a comprehensive development of the law of the sea.

When representatives of the specialized agencies go to meetings of the Seabed Committee, they often find themselves at great distance from the issues under immediate review in that essentially political forum. In March, for example, there was at Geneva no point at which the technical expertise or resources of the agencies represented could impinge on the work that was being done. A fortnight was spent in discussions of the Sub-Committees' terms of reference and their officers—discussions of political nature open only to delegates. I was reminded of how I felt about these controversies by recalling the story of a prospector in the early days of the West who came home to his cabin to find his wife in mortal struggle with a grizzly bear. He said he had never seen a fight where he took so little interest in the outcome.

An attitude of disdain for the element of political jockeying is wrong, however. It is wrong for reasons eloquently given by Ambassador Solomon. The UN Committee *is* political and will remain so; I do not see a change in it, however it may encompass the work of legal and other technicians. The point I wish to make is only the difficulty of using it, together with all the solemn and dramatic congresses to which it will lead, as a source of detailed regulatory prescriptions in such technically specialized areas as pollution, scientific research, and the modalities of exploitation and exploration of the seabed and the distribution of its wealth.

A word of caution, too, about the value of seconding technical officials from the specialized agencies to the secretariat of these conferences in the absence of well-thought-out ways and means for applying the expertise of those persons. The untimely or wasteful use of such expertise could be very counter-productive.

The conclusion I draw, therefore, is that the prospect of agreement will be enhanced by new forms of multipartite law-making in the international forum. "Agreement" in the sense that we use it in this afternoon's panel on the prospects for agreement goes for me beyond the process of bargaining on the one hand and the contract or identifiable enactment which results, on the other. It has already been decided that, as in the earlier years, the law of the sea shall be progressively developed by means of the traditional, ceremonial, diplomatic conference, culminating in its final act and one or more conventions. I suggest that the further institutional outcome of that process will be of predominating importance and that the maximum flexibility should be brought to devising its future.

The conference should be but a stage in a process, as somebody has asserted here; I think Dr. Evensen said this. We will find that all will change in due time; the developing countries were reminded, for example, by the delegate of Singapore in March that they will not always be in that condition.

And finally, if patience can be its motif and the dispelling of a crisis atmosphere its means, it will not be said of the Law of the Sea Conference as was said at the Congress of Vienna that "Le Congres danse mais ne marche pas."

Alvaro deSoto, Mission of Peru to the United Nations

Thursday afternoon, June 24

I am pleased and honored to participate in the annual meetings of the Law of the Sea Institute in order to discuss, in my personal capacity, issues with which I am officially involved.

Time obliges me to be selective.

You will recall that on Tuesday morning Mr. Leigh Ratiner told us that it was absolutely clear that Latin American countries do not want a Conference on the Law of the Sea. As evidence, he recalled his participation in the negotiations on what eventually became resolution 2750 C (XXV) of the General Assembly, and what he referred to as the pressure—Latin American of course—to qualify the decision to convene a conference in 1973 with the words "if possible." I then limited myself to saying that Mr. Ratiner's statement was false, and that I would take up the matter now. Although I regret to see that he is not present, I feel it would be a disservice to Mr. Ratiner's status as an important spokesman for United States oceans policy not to rise now to his challenge; also, it seems an adequate way to address myself to the subject at hand, which is that of the prospects for agreement.

First of all, having participated in the negotiations on resolution 2750 myself, I would like to refresh Mr. Ratiner's memory. To begin with, both his Delegation and mine, surprisingly enough, co-sponsored that resolution when it was submitted to the First Committee

of the General Assembly. That in itself should demonstrate that we are at least as favorable to holding the conference as his Delegation was. And if we are to give credit to Ambassador Solomon's hypothesis that the United States may decide to "pick up its marbles and go home," I would say we were more favorable. Secondly, I would point out that though paragraph 2 of the resolution does not qualify the convening of the conference with the words "if possible," that paragraph explicitly refers the reader to paragraph 3, whereby the General Assembly

> *Decides furthermore*, to examine at its 26th and 27th sessions the reports which the Committee submits of the progress of its preparatory work in order to determine the precise agenda of the conference on the law of the sea, to decide definitively the duration, date and venue and other related arrangements, in the understanding that if the General Assembly, at its 27th session, reaches the conclusion that the progress of preparatory work is insufficient, may decide to postpone the conference.

Forgive my liberal translation from the Spanish version.

I believe it is clear enough to indicate that the United States Delegation shared the view of mine that the conference should only take place if possible. Which is to say, that the conference should take place only if there are reasonable chances of success. And I think we would all agree that what Mr. Ratiner referred to as the "obstinacy of symbolism" applies most appropriately to a straitjacket date for the conference. It is hard to concentrate on the issues if we are indissolubly wedded to a date; the matters to be decided on are far too transcendental to be taken lightly or by assault. And, as Bernard Oxman, an equally eminent spokesman for United States oceans policy, told us on Monday, "agreement is better that non-agreement, but not *any* agreement", and I may add, not an *imposed* agreement.

That is a level-headed approach which I wholly favor. Fortunately, level-headedness is not a monopoly of the establishment, much less of the seafaring establishment commonly known as the "major maritime powers." Nor is such an approach incompatible with the necessarily new focus of international law of the sea required of the international community now.

We must, as Alan Beesley of Canada said yesterday, clarify and develop the law of the sea. And in that process, we must face what Dr. Evensen of Norway, somewhat bluntly, referred to as "the facts of life." That is, we must recognize the preponderant role of State practice in customary international law and permit States, which are and have always been the main *dramatis personae* on the international stage, to play that role at the conference. States are, after all, the principal subjects of international law and, as such, until a better system is developed, must subsume and express, through their Governments, national interests and priorities.

The Declaration of Latin American States of Lima of August 1970, like its predecessor the Declaration of Montevideo, bases the right of coastal States to utilize the resources off their coasts and to fix the limits of the exercise of the jurisdiction necessary for rational utilization and development needs on the geographical, economic and social link between the sea, the land and man inhabiting it. I need not go into depth on the matter: the text of the Montevideo Declaration is contained in the Proceedings of last year's meetings, and I might suggest the publication in this year's of the Lima Declaration, which exists as an official United Nations document.

These Declarations give us, I believe, the common denominators of a position which must be recognized at the conference. If carefully read, I think that the prospect need not be so hair-raising as some would have us believe. For instance, I think it is misleading to think in terms of the alternative to adopting an agreed uniform limit of territorial sea being a general extension by all States to 200 miles seaward which, as one speaker told us yesterday, would take British sovereignty to Paris. A tired argument, to say the least. I do not know who has advocated everyone extending their limits of jurisdiction to 200 miles. I know we, the Latin Americans, have not, and you will probably tell me that we are the most likely candidates to do so. I think this misconception, on which Dr. Burke seemed to base a considerable part of his intervention of Monday past, may derive from a somewhat sketchy reading of the Declarations of Montevideo and Lima. I defy anyone to find a figure in the texts, 200 or other. We are not guilty of what Mr. Ratiner called the "obstinacy of symbolism."

The Declaration, rather, covers a diversity of claims besides the Latin American ones, such as those of Philippines and Indonesia, Guinea, Senegal, Gabon, Cameroon, India, Pakistan and Ceylon, as well as Canada, Iceland, and possible formulae for the Carribean, some of them yet to be precisely regulated or implemented. They are, I believe, what Mr. al-Qaysi had in mind this morning.

Furthermore, it is quite unwarranted to say that the extension of limits as we expound it is arbitrary and unrestricted. The restrictions and conditions to which the State must conform are spelled out in the Declarations.

At any rate, Dr. Brown's finding of a proselitizing strategy or conspiracy on our part, though flattering, seems to be a bit of an overestimation. The question is simply that the tide has turned, regardless of those of us whom Bernard Oxman once referred to as the "obstreperous few," and who are no longer so few. I would venture to say at this stage that there is something of an inevitability in the revival of the coastal State, that this will be a dominating theme at the conference, and that this is far more a redress than a revolution.

For, as Dr. Syatauw and Dr. Miles told us on Tuesday and Wednesday, there must be, and I believe there is, a new awareness on the part of the developing States with regard to the difference between the context of 1958 and that of today. The relation of the periphery to the center in economic or rather trade terms and its consequent political dependency brought developing countries to create the UNCTAD—United Nations Conference on Trade and Development—to try to restructure international trade so that it will further development. The accession of such a large number of new States to the international community, and the peculiarities of those States, as well as the complementarity of the interests of the superpowers, lead us to couple our consciousness of the injustice of trade relations with the injustice of a political order imposed by the superpowers. At the last General Assembly, under the apparently lyrical item "strengthening of international security," small and medium States protested such an order, and put forward their view that security for all States must be based not on a precarious balance of power and a division of spheres of influence, but on an authentic peace which cannot be, as the Soviet Union and the United States seem to conceive it, what a Latin American Delegate used to refer to as "a tolerable state of war;" but rather must be founded on the premise of the indissoluble link between security for all nations, disarmament—general and complete—and development.

That is why you will find among developing countries a strong resistance to the easy temptation of falling into old schemes, such as those of 1958, and tired, liberal models. This resistance will be fueled, inevitably, by new States which had no say in the elaboration of past norms, and which hence possess a perspective viewpoint sometimes lacking among older members of the international community. You will find an apparently disquieting inclination to what I dare call an UNCTAD approach or, by default, a pluralistic-regional one, which is, I believe, the expression used by Dr. Brown.

Professer McDougal, on the other hand, wondered this morning whether concepts such as freedom of the seas were properly understood. They are too well understood, I would reply, and not wanted, in the absolute unfettered terms in which they have reigned until recently. It is clear that Alan Beesley yesterday came to bury Grotius, not to praise him, and I am a member of that funeral. That is why it is so difficult to countenance, and much more to swallow, proposals such as the United States draft regime for the seabed. We realize that it is put forward mainly as an edulcorant, a sweetener for proposals on limitation of territorial sea which are themselves in essence, based on self-interest for a libertine freedom of dubious advantage to the international community, and thus unilateral in their own way. I am afraid, though, that there has been an error either in the recipe or in the concoction, for the sweetener has turned out sour. Though it has been presented as a balance of all interests involved, it seems to have remained a balance at the national level. And I am sure that some of the petroleum people present would dispute even that.

It does show, however, that we need a sort of cultural revolution which would purge us of arthritic thinking, to avoid presenting poorly disguised old formulae as measures which would benefit mankind as a whole.

Mr. Oxman pointed out on Monday that one of the useful aspects of Arvid Pardo's global and revolutionary approach to the law of the sea as put forward in the Seabed Committee in March—he would have us do away with notions such as territorial sea, contiguous zone, continental shelf and freedom of the seas, in absolute terms—is that it allows us, or rather forces us, to rethink all the issues. I would share this opinion and it is that of my Government as well, insofar as it means that the law of the sea requires a comprehensive, organic review. The linkage of the issues involved obliges us to take this approach, and I was happy to see that the United States seemed to have done an about-face on this question. But I am disturbed by remarks made by Mr. Ratiner on Tuesday to the effect that certain issues on "disarmament" and the law of the sea might best be kept out of large, unwieldy bodies. I think this is a dangerous approach, and it evokes in my mind the mentality described in the political Committee of the General Assembly as "the elusive, all-pervasive art of co-chairmanship." I am referring, of course, to co-chairmanship of the Conference of the Committee on Disarmament, from whence came the so-called denuclearization of the seabed treaty, which Dr. Syatauw so adroitly dismissed as "unimportant."

We are conscious of our responsibility to the international community as a whole, and this is reflected in our assumption of control of the ocean space off our coasts. And I am firmly convinced that a conference, properly prepared, and approached without preconceptions or misconceptions, without apocalyptic dust storms, so similar to smoke screens, will demonstrate the complementarity between those concepts incorrectly described as opposed—unilateralism and multilateralism.

THE PROSPECTS FOR AGREEMENT

C. V. Ranganathan, Mission of India to the United Nations

Thursday afternoon, June 24

As the final panel speaker on the papers presented this morning, I am not quite sure I enjoy the dubious privilege of having the last word. It casts on me a responsibility which I find difficult to live up to, at least in the limited time left at our disposal.

We are all aware of the tasks facing the international community in the field of ocean space administration. We have heard an exhaustive review of the problems from Dr. Seaton of Tanzania and from Professor Louis Sohn. What is perhaps not so clearly appreciated is the significance of the emergence of new political concepts in the domain which need to be translated into legal terms. To mention a few, the concept of the equitable sharing of benefits from the exploitation of resources, the felt impulses towards democratization in decision-making bodies and the need to reflect this concept in any new institutional structure, the need to reconcile the inclusive interests of the international community with the exclusive interests of the coastal States —both types of interests are recognizable—these, to take a micro-view, are a few of the challenges in the field. And the debate is being carried on against the background of revolutions in economic and commercial technology, military science, political doctrines and not the least, against the background of a revolution in rising expectations.

The problem therefore is one of creating and sustaining a proper intellectual and psychological approach —a framework within which these problems can be tackled. Here the overwhelming majority approach in the Seabed Committee is, notwithstanding a conflict of interests between developing and developed, to build a new law where none exists, to fit in the existing law with the new law by revising its inadequacies, gaps and inconsistencies—not to destroy everything that has been achieved by the international community so far. No exclusive wisdom is being claimed which predecessors in the field did not have; but where past experience is inadequate or insufficient, it would be our duty not to be limited by obsolete frameworks.

If Mr. Grotius is challenged—and I believe he should be— in basing himself on his experience and announcing that the sea unlike the land has inexhaustible resources, there is reason to do so. It is in this context that one tends to agree with Mr. Beesley. He made bold to selectively challenge existing inadequacies in the legacies of ocean space law. One would hope and indeed strive for the prevalence of this spirit. May I humbly urge upon the learned Professor McDougal that the worship of sacred cows is best confined to the shores of my own country!

In reviewing the statements made on the prospects of agreement, I shall confine myself to certain questions underlying the international regime for the Seabed. We all realize—and Professor Sohn outlined this in a most concise manner in the morning session—that the issues in ocean space administration are interdependent. It is my own belief, and I should here recall that I speak purely in a personal capacity, that if some progress or even promise of progress is achieved in the area of devising an international regime including international machinery for the exploitation of resources beyond the limits of national jurisdiction, then agreements in the other traditional law of the sea questions may well follow.

What then, initially, are the elements of the international regime in which progress should be achieved? Not to be exhaustive, these are, I feel: the precise nature and scope of the international machinery in terms of its functions; the precise nature of the control to be exercised by the international machinery over the area and its resources; the nature of the decision-making processes within the international machinery; the basis on which the benefits arising from the exploitation of resources should be shared by the international community; and the mitigation of adverse economic consequences resulting from the exploitation of the resources in the international area and so on.

To say a few words about some of these:—If we are agreed that a regime, including international machinery, is to be established, which would give effect to all the provisions of the Declaration of Principles adopted at the 25th General Assembly, it follows that the scope of the international machinery would have to be comprehensive. The Declaration embodies the politico-legal decisions of the international community. These take into account, albeit in outline, the complex developments in the scientific and technological fields, the economic realities underlying the international political community of nations, and the future prospects of harmonizing growth of all the members in a rational framework of order. The scope of such a machinery should not be confined to the problems arising out of resources management alone, but should relate to a wide range of the peaceful uses of ocean space. We have followed with some interest the tentative United States view on the range of functions proposed in the Draft U. S. Convention; and we have suggested, without any categoric pronouncements, a possible increase in the range of functions proposed in that draft.

The next question is the structure of the proposed international machinery. This, in my view, would have to be devised so as to have an economic, technical and commercial wing relating to the exploration and exploitation of resources on the one hand and a general or political wing on the other hand which are related to the machinery's proposed functions. The former branch would deal with regulations coordination, supervision and control of activities relating to the exploration and exploitation of the resources of the seabed and ocean floor beyond the limits of national jurisdiction. The political or general wing would deal with

other aspects of the international area such as may be agreed upon, in coordination with other international organizations which are in existence or which may come into existence. These may be concerned with aspects of the marine environment, resolving the conflicting uses of the seabed and the superjacent waters, or deal with questions relating to the exclusive uses of the seabed and ocean floor and the subsoil thereof for peaceful purposes. Also it could take necessary action in cooperation with existing agencies to minimize adverse economic consequences arising from the exploitation of the resources of the international area, as well as administer the particular requirements of land-locked countries. The envisaging of such a structure is without prejudice to the suggestions already made in this regard—viz., Assembly, Council, various administrative regulating and supervising Commissions operating under the Council, etc.

Turning next to the decision-making processes within the international machinery: to be politically acceptable all nations represented in the decision-making body must have their due weight in the decision-making processes. To leave the crux of decision-making to the industrially most advanced countries is neither desirable, feasible nor practicable.

I have referred often enough to the seabed beyond the limits of national jurisdiction. Where does this begin? Here I would like to mention a few considerations. If it is agreed that it is in the interest of the overwhelming majority of countries to have a regime which would include a machinery, and which would have comprehensive powers, then it follows that the international machinery should have jurisdiction over an area the depth and resources of which would permit profitable exploitation. Such exploitation, it has further been enjoined, should be for the benefit of mankind as a whole, irrespective of the geographical location of States. Developing countries would have to therefore consider whether their long-term interest in maximizing their shares of the wealth of the seabed would best be served by claiming large national areas, and the exploitation of these areas through foreign technology on negotiated terms; or by the acceptance of moderate limits to national areas, and placing the responsibility for carrying out and/or regulating exploitation of the seabed in international machinery with comprehensive powers and in the control of which they have an adequate share. Further, the special interests of coastal States in living resources in certain areas of the high seas adjacent to their territorial seas will need to be protected. In the determination of the precise definition of the area of the seabed, however, various interrelationships will have to be taken into account; and in this sense there is an underlying unity in negotiations on ocean-space administration. This is the rationale behind the call for a comprehensive type of Conference, rather than a Conference for specific purposes. We all recognize that the question of determination of limits is crucial to the whole issue — indeed so crucial is it to the nature of the international machinery we are discussing that no hasty decisions are advisable. I would here tend to agree with Mr. Bavand of Iran, who to my mind appeared to advocate a functional approach to the question of limits—namely, different limits to be adopted for differing specific purposes.

There has been understandable impatience with the work of the Seabed Committee. I would like to put its work in perspective. It has enabled people like me to have a clearer idea of the possible size and location of the sea's mineral resources, of the techniques necessary for their exploration and exploitation, some of the conditions under which these activities should be carried on, the dangers of irrational development of the area and its resources, and the interdependence of the subjects under discussion. It has also thrown up in bold relief several crucial questions to which the international community must address itself. In the discussion of these questions, the overwhelming majority of developing countries — who have a shrewd perception of their national interests — would be deterred neither by grim visions of impending apocalypse nor by rosy visions of untold wealth. The path of progress, it is well recognized, lies in the willingness to compromise in this vast area of interdependence, as indeed in other areas of international life; and let us remember that these areas are varied as life itself. Whatever the wishes of a few or even the many, there is no particular reason to assume that ocean space administration will be considered in a completely isolated compartment, unrelated to developments in other political, social, economic and cultural fields.

Now it may well be asked how I have dealt with the question of enhancing the prospects of agreement. My short answer to that question is that maximum exposure to the seemingly varying national perspectives may well produce the conclusion that at least some of the perspectives are perhaps not all that different!

Discussion

Thursday afternoon, June 24

Ouchi: A rudimentary question: In order to make your proposal for international machinery most effective, it seems that such machinery needs to have, one way or another, supranational power. I think that supranational power is something that the United Nations and its member States have made every effort to exclude. Could you comment on this?

Ranganathan: I think the experience of the United Nations, if anything, is to create bodies which certainly temper national power. I would not attach a label to the proposed international machinery for the seabed

and call it a supranational body or any such thing. New problems will require new solutions, and the experience of the United Nations is not all that discouraging; at least not if you consider the number of social and economic questions with which the UN has been involved in recent times.

Brittin: I would like to respond to Mr. deSoto, our colleague from Peru. I believe that we must allude to the statements of individuals here at the Law of the Sea Institute as statements of individuals. I was rather surprised to have another gentleman from our government referred to as a declarer of United States oceans policy. When I spoke yesterday, I spoke as an individual. I believe that all participants were invited to participate as individuals. As a matter of fact, both Dr. Alverson, as I recall, and myself have spoken on the point alluded to by Mr. deSoto.

In regard to the question of the timing of the Law of the Sea Conference, it strikes me that by the time 1973 comes along, the world community will have had a period of approximately six years in which it will have had the opportunity to review, to study the issues before it. I look back to the preparation for the 1958 Geneva Conference on the Law of the Sea, and I measure the actual time dedicated to discussions leading up to that Conference; and I see a parallelism in time while acknowledging the form is quite different from that used in preparation for the 1958 Conference.

I would also suggest that as we view the oceans today, unfortunately they are more inclined to be a catalyst for discord; yet indeed I think it is the desire of all States to make the oceans a platform for peace. Thus there is an urgency in our work, and I think that the date of 1973 is a fair date. I think it is one that we can set our minds to. When we get right down to it, I feel certain that Mr. deSoto shares my views on the question of whether or not all States participating are willing to proceed on the basis of goodwill, with a willingness to negotiate, and make accommodations in order to reach common grounds.

I would also like to refer to one element presented this morning in a discussion between Professor McDougal and Dr. Christy. If I understood Professor McDougal correctly, then I must disagree with what Dr. Christy said. As I understood Professor McDougal, he stated that over the past generations and indeed centuries, a regime of the oceans was built up through trial and error by group practice that essentially accommodated and created a balance between external and internal interests, and that regime of freedom of the seas served the world community rather well. I believe that Professor McDougal was also saying that in this present period we are experiencing an acceleration of activities on the ocean. Further, he was indicating that the pressures created by the various uses of the oceans now are much greater than ever before. Unsaid by him, but certainly I think included, is the fact that in the recent decades we witnessed a greater need for protein throughout the world. Consequently, an old use of the sea, the seeking out and harvesting of the living resources of the seas, is of a much different magnitude than heretofore. In like context, other old uses are increasing in scope and magnitude. To make our equation more complex, there are new uses that have been introduced in the past ten years, and they rub up against old uses and respond to new perspectives. Here we are referring to the resources and uses of the seabeds.

Another factor is that the world community now recognizes that there are limits to utilizing the ocean as a dump. During the 300 years that Professor McDougal referred to, pollution was not a factor; it obviously is today. As I interpreted Professor McDougal's comments in the broad sense, I think he was saying that there are new uses and accentuated old uses, and that these must be recognized in creating a new balance. His plea essentially was that in making a new balance, the old truisms and old standards should also be incorporated in order to make an equitable balance between what was old and what we know is new. In this context I disagree with my compatriot from Canada, Alan Beesley.

In closing, I would like to pose one question to Professor McDougal and to the panel if they would care to respond to it. Perhaps I am looking a bit beyond the 1973 Conference, but I can visualize when the increased uses of the ocean and the increased demand for ocean resources will be such that, just as a hundred years ago there was no such thing as a traffic cop, there will have to be some kind of strong and viable arrangements for enforcement. The enforcement that was instituted and, in fact, utilized during the past 300 years is something that is not adequate for the coming generations of use. I wonder if any of the gentlemen on the panel or Professor McDougal has thought that far down the road. How and what machinery will be created for enforcement, and how would it be carried out, and by whom? I think that this is an emerging major issue, perhaps not for the 1973 Conference but later on.

Busha: I certainly do not want to deprive Professor McDougal of time to respond fully to the interesting question with which Mr. Brittin ended his statement. I merely want to say that better enforcement of international law in ocean space is a factor which we at IMCO feel must come to the surface in the decision-making processes of the United Nations family, and perhaps rather sooner than might be expected. If the terms of reference had not been as they are, I had thought of dwelling on this interesting aspect in connection with pollution control. I also questioned my good friend, Bill Sullivan, the other day at some length about the fisheries conventions in which I was surprised to find in one case that even such States as the U.S.S.R. accept the right of another State's vessels to stop and board and even take a fishing vessel into port. Enforcement measures have been at least peripherally ap-

proached in connection with pollution and the legal status of ocean data acquisition systems, but that is so far little more than mere discussion. In the case of pollution, the world, it seems to me, clamors for something to be done in this area—something aimed at collective rather than flag State enforcement alone—and I would most gratefully hear what Professor McDougal or anyone else says on this subject, because it is one which must be confronted at some point in the perhaps early future.

deSoto: Just a word on the first part of Mr. Brittin's statements. I myself made a disclaimer at the beginning of my statement. I sort of imposed schizophrenia on myself by dividing my personal capacity from my official capacity. I find that very difficult to do. My government probably finds it is impossible to do. I think it would be even more difficult to do in the case of such an important person as Mr. Ratiner, who participated in drafting the Nixon proposal, who is Chairman of the Defense Advisory Group on Law of the Sea, and who, after all, was speaking in favor of United States ocean policy. My greatest difficulty is in accepting a disavowal of a government official's statement by another government official's statement, because that would be, I think, a form of intervention on my part which I cannot indulge in, either in my personal or in my official capacity.

McDougal: Mr. Brittin has put me on something of an impossible spot. If I had the wisdom to answer his question, I might, I think, in special personal interest, be selling my talent to this mysterious establishment that is supposed to run the oceans.

It may cause surprise, but I agree with much that both Mr. deSoto and Mr. Ranganathan so brilliantly and eloquently said. Employing Mr. Ranganathan's metaphor, I have no desire to kill the cow from which we all get milk. I certainly am not opposed to change. During the 25 years that I have worked in the field of international law, I have tried to support the major goals Mr. Ranganathan stated. These include the increased democratization of our governmental processes, on both the local and national levels, and a striving for the more equitable distribution of the benefits of all of our activities. What causes me difficulty, however, is in seeing how an increase in the comprehensive exclusive competence of the coastal State can either increase democratization or increase the more equitable sharing of the benefits. Take first the democratization point. Whatever the equity of production and distribution in the past, the great bulk of the oceans have been under the competence and control of the whole of mankind. Single States have not been able unilaterally to make the law of the sea for others. Most recently, we have the North Atlantic fisheries case, and the votes of everybody in the 1958 and 1960 Conferences, that one State cannot unilaterally determine the scope of its comprehensive, exclusive competence over the oceans. This is a matter for inclusive community decision. No matter how you try to disguise it, if you take this competence away from the general community and give it to particular States, you take a step against democratization.

Customary international law is of course made by parallel unilateral claims put forward with a promise of reciprocity and mutually honored as in common interest. But this is a cooperative activity in which all participate, and the unilateral claims are not destructive of the shared interests of others. Mr. deSoto said that he was not urging that all States get a territorial sea of 200 miles; that only some States be given this. The point is that the people who make the claims of 200 miles cannot do so with a promise of reciprocity to others. They make claims of special interests, destructive of the interests of others. They can win only if conditions remain the same as when they claim. If everybody makes similar claims, if all decide against the common interest, if the general community cannot control these decisions, if every particular part makes policy for the whole—then there can only be dissolution of the whole. Everything is up for grabs by naked power. It might be well to remember that the big boys always get more than the little boys when decisions are taken by naked power.

One author has indeed said—I think it is a complete mistake—that the only law of the sea is that the big fish always swallow the little fish. This is the kind of retrogression that contemporary policies of unilateral grab might establish.

When we turn to the distribution of benefits, I agree that some of the fish may be exhaustible. Not all of the resources of the oceans are inexhaustible, but many of them are inexhaustible. There is, further, the whole problem of access, not only for the traditional noncompetitive uses of transportation and communication, but for compatible new uses; these new uses create new problems in protecting the interests of the whole. This is what is really at stake in the pollution problem.

Insofar as the oceans of the world are a resource that, with appropriate organization, everybody can use, you do minimize total creativity when portions of that resource are put under exclusive, monopolistic competence and control. The amount of the pie available to be divided is lessened. No matter how equitable the formula for distribution may be, if the pie is small, a share may not be worth much. What I am urging is that we should not kill the multiplier effects achievable by multiple users with freedom of opportunity. When States need new wealth, it might be better to secure it from other sources. It might be better to honor the grabbing of land masses of neighbors rather than of the sharable resources of the sea. The land masses are not amenable to this multiplier effect as the oceans are to a very high degree. It is suicidal to kill the sources of productivity. Mr. Burke and I used the fable of a bunch of monkeys on a seasaw, with overhanging grapes on a high limb. One monkey may be able to climb to the top to get grapes, but if all rush at once, nobody gets any grapes.

To come to Mr. Brittin's challenge, I don't think anybody can answer in detail how a new regime that does try to maximize this productivity of the oceans would operate. Enforcement is the very last step in the making and application of law. The first step is to establish the policies, secure the prescriptions, that are in common interest, that do distinguish between these problems in a way to encourage productivity. The next step is to have a machinery or process for relating these prescriptions to particular instances of controversy. The prescriptions will always be complementary. They will always express both inclusive and exclusive interests. I do not like this distinction between the interests of coastal States and international interests. What are called international interests are merely the common interests of all States. The genuine distinction is between common interests and claims of special interests which are destructive of common, and within common interests those that are inclusive (affecting all) and those that are exclusive (affecting predominantly one). Such common interests must vary from coast to coast and place to place. We will always have to have a process of application for accommodating these potentially competing interests in particular instances. Many of us would like to see more third-party decision making. What is needed, however, is merely a party who can clarify common interests in particular instances. In the absence of third-party decision, the officials of States have to do this themselves. The same State officials who make claims, with promise of reciprocity or threat of retaliation, are in turn the judges of the claims of others. When claims are destructive of common interest they are met with denials of reciprocities and threats of retaliation. The fact that the same officials are, alternately, both claimants and judges offers some guarantee of common interest. Our first policy should be to encourage the parties themselves to make applications in terms of common interest. When this fails, the coercion of the general community may have to be applied. In an ideal world we would, I suppose, establish some international machinery, some third-party decision—with international officials not identified with any particular country, culture, or ideology—for the ultimate resolution of controversies.

I do not really hope to get this any time soon. In the meantime, we must work with the representatives of States who are genuinely trying to identify a common interest. One could draw upon a very rich history here of how State officials have responsibly attempted to apply general community prescriptions. Many have sought not only to preserve rules of the road, but to secure the genuine peace our spokesmen so earnestly and eloquently desire.

I would say frankly I don't purport to have the wisdom to outline the details of a future more ambitious administration. As I said this morning, I think the genuine sanction behind any prescription is found in people's perceptions of common interest. Meetings like this, in a great university, meetings of the United Nations committees, and many other public fora should aid us in getting on with this clarification of common interest of all people. If this clarification can be achieved and maintained, I will not worry about the details of enforcement.

deSoto: I'd like to make a few remarks about what Professor McDougal has just said. I think the first thing I would state—and I would invoke for this the spirit of Alan Beesley, who recalled that international law ideally should be created by international multilateral agreement—is that this is a rather ideal conception, and it does not at present exist. Mr. Beesley explained to us yesterday very clearly the thesis which I think is valid, that we cannot neglect the role of customary law as a source of international law; and this is particularly true as far as jurisdiction on the sea is concerned, which is mostly customary.

Professor McDougal has spoken of reciprocity. I don't think that he would want to apply strict reciprocity whereby we would fall into the problem which someone was describing yesterday of States in the Mediterranean going into each other's territories if they claimed 200-mile jurisdiction. What I'm saying is that we would recognize reciprocal claims or claims by other individual States if they were absolutely necessary to those States and if they were subject to certain criteria which we have established in the Lima declarations, those criteria being the state of underdevelopment, mostly, and certain geographical and other links between the coastal State and the sea adjacent to it. But I would like to put emphasis on the condition of underdevelopment. I don't like to use old models such as "strict reciprocity" which is not accepted any longer even in current instruments such as the GATT. It's obsolete. I think that is about what I had to say.

Ranganathan: I think I would agree with what Professor McDougal has said, and try to put it in perspective. I would agree with him that the problem is not even that of the big fish being swallowed by a number of little fish, which unfortunately becomes the perspective on developing countries' attitudes. Without going into the moot points of unilateralism versus multilateralism, the point is that there has been a trend towards unilateralism, precisely because certain countries seem to be convinced that their specific interests, the validity of which cannot be questioned in their entirety, seemed to be threatened because there is no international framework to recognize or preserve these interests. It is in this context that I think Professor McDougal's remarks are very relevant; that is the perception by the international community of interests which can be safeguarded through an international machinery.

Coming to the question of enforcement, it would appear to me that if the benefits are to accrue to a number of countries according to criteria which are

accepted, if conformity would become the rule, any deviation would tend to cut off the benefits. If benefits do not accrue, then the incentive to violate would not exist.

Idyll: It seems clear that the prospects for agreement at LOS '73 will depend upon whether or not there are sufficient issues on which nations can see enough advantages accruing to themselves that they are willing to accept some losses elsewhere. I am hopeful that there will be enough of these areas where common benefits can be seen that agreement will result. In the field of fisheries there are some areas of probable agreement. Two or three of these are of such importance in and of themselves that they would justify the writing of a treaty even if nothing else could be agreed upon. One of these, the protection of fish stocks from overexploitation, is so vital that if there is no agreement, losses to the world community will be disastrous. As a fishery biologist and marine ecologist, I am alarmed to hear repeated the dangerous statement that marine fishery resources are inexhaustible. It prompts me to remind the audience here and people who will negotiate the treaties in 1973 that the living resources *are* exhaustible, and that unrestrained exploitation can damage or destroy them.

We are told that ocean mineral resources are virtually inexhaustible because they are so large and so inaccessible. We are even told that some of the ocean mineral resources can accrue fast enough that miners will not exploit them to extinction. I want to remind you that most fishery scientists have agreed for the last 70 or 80 years that fishery resources are exhaustible. But even with this long history of agreement this is something we must continue to be reminded of. If we are unable to come to some agreement at the international level concerning living resources, we are likely to damage these resources seriously.

On the other side of this coin, a loss can accrue by under-exploitation. If resources are not harvested over a sufficient period, they can be lost.

The third thing that can be lost by lack of agreement in 1973 has been referred to many times at this meeting with much apprehension, and rightly so. This is the possibility that we may poison the ocean and thereby damage resources there. Both the harvest of the living resources and the possibility of pollution are greatest in the shallow regions of the sea close to shore, and therefore are largely the responsibility of the adjacent States. There is enough opportunity on one hand and enough threat on the other that there should be areas of agreement where nations can find enough common ground to persuade them to subordinate differences and reach agreement in 1973.

Caflisch: I am Lucius Caflisch from the Woodrow Wilson International Center for Scholars, Washington, D.C. My first remark is directed at Mr. deSoto's excellent statement which requires some response. Mr. deSoto is ready to bury Hugo Grotius. I believe that the latter deserves some defense—*in absentia*, of course. It should be noted, firstly, that Grotius' work had relatively little to do with fish and fishing, but was centered upon the concept of the freedom of the seas. I would further like to point out, as a matter of historical record, that Grotius' revolutionary concept of freedom of the seas was precisely intended to benefit those countries which, at the time, were in the position in which the developing countries of the Third World are now. Naturally things have changed, as the seabed has become exploitable; I am the first to admit that. Mr. deSoto has duly registered this change, but having done so, he has remained remarkably silent, perhaps justifiably so, as to the precise contents of the new rules which should take the place of the old. I would venture to suggest that the manifold problems of the Law of the Sea with which the international community is now being confronted will not be solved by mere iconoclasm.

Drechsler: I am quite interested in this conference. I have been sitting here in the back of the hall trying to sum up in my mind what the conference has discussed. I believe, however, that Professor McDougal really summed up the conference for me with his story about the monkeys. As an economist, I take models and change them to see what will happen. The story of the monkeys is an interesting tale and if we add a new assumption that the monkeys are of different sizes, we reach a different conclusion. In the past, for many years, the big monkeys went to the high end of the board and the little monkeys went to the low end of the board. The problem that I see here now is a change in the position of the monkeys. I think that shifting of monkey positions summarizes the entire conference.

deSoto: I would like to slightly correct Dr. Caflisch. I did not try to make an onslaught on Grotius; I refer to the record. My idea was simply to bury him. He has told us that the freedom of the seas is not linked with fish; I might dispute that. But on the other hand, neither was the freedom of the seas as conceived in 1958 in the Geneva Convention, for instance, interpreted to mean freedom of exploitation of the resources of the seabed beyond national jurisdiction. However, certain delegations in the Seabed Committee *did* try to interpret it that way; so what I am afraid of is these elastic interpretations.

While I have the microphone, I should like to underscore Dr. Idyll's very relevant statement. He did say, for instance, that live resources are not inaccessible to harvest. They run the danger of being exhausted, however inexhaustible they are claimed to be. In Peru's case—of course, I can only speak for Peru—fish are accessible to harvesting. What we ask is simply that fishermen from other nations, as well as fishermen from Peru, subject themselves to the regulations imposed, which are based on presumably serious criteria. I say regulations imposed and based on presumably serious criteria because I do not question your right

to cast a shadow of a doubt on my government's capacity to impose these regulations; but that is a totally different matter, and I would take it up in another field.

Ranganathan: Our distinguished questioner would recall that in 1967, when the subject was raised in such a brillant and dramatic manner by Ambassador Pardo, it led to the decision that a special committee of the General Assembly should be created to go into these questions. Subsequently, the subject itself has been expanded from resources of the seabed to other "conventional" law of the sea questions, and these subjects have become the concern of this committee.

Rightly or wrongly, the International Law Commission has itself been criticized for slowness of work in its particular field in dealing with these questions in the earlier years leading up to the 1958 and 1960 Conferences. It was also advanced that the International Law Commission was busy with other pressing matters, and that it could not take on this additional responsibility. My facts may be wrong there; experts from the International Law Commission are here who can give a better picture on this particular aspect. But the crucial question is really the importance of the matter. The variety of interests involved led to the decision by sovereign States in the General Assembly that to deal with this subject or with these subjects, only the special committee would do. This does not mean that the documents prepared by the International Law Committee will not be referred to or not used. Indeed, they are being used.

Vargas: After the brilliant presentation of Mr. deSoto, I would like to ask a very simple question in search of specific information. When Peru joined the 1952 Declaration, I remember that one of the supporting arguments for this policy was scientific theory known as the Bioma Theory. It was very well explored. I wonder if at this time new additions have been made to this concept, and in case it is still supported by the Peruvian government which could be the most authoritative source of information regarding that.

deSoto: Mr. Vargas puts me in some difficulty. I know this was one of our sources for participation in the declaration of Santiago. This was our position, of course, and we subscribe to it. I do not have at hand any information on the subject. I can only refer you to my government, and they will refer you to the scientists.

Park: My name is Mr. Park from Korea. By way of supplementing what has been mentioned by the two speakers on the attitude of China regarding the problems of the sea, I would like to make a few points. One of the causes that has aroused law of the sea problems in the East China Sea is the continental shelf delimitations by Korea, Japan and Taiwan. Three points may be given in this regard.

First, Korea made announcements specifying seven seabed mining blocks around her coasts in 1960 and 1970, each being from 50 to 70 square kilometers in size. Then Taiwan also made similar moves and gave concessions to foreign oil interests. Two of the five blocks partly overlap with three Korean blocks. The case of Japan is somewhat different. If I am wrong, I take the liberty to invite the cooperation of my Japanese friends here today to correct me. The Japanese oil interests applied to the government for seabed mining rights over certain areas of the East China Sea. Thus, the claims of these three countries overlap in some part of the sea there, so that an objective viewer would find three "pirates" engaged in a high seas robbery, with the fourth one ready to demonstrate an enormous appetite.

Second, in the late autumn last year, there was a peculiar move among the three coastal States, Korea, Japan and Taiwan, for the joint exploitation of the oil resources of the East China Sea on a nongovernmental basis. This idea was to put international law aside by "freezing the problems of national jurisdiction" and just go ahead with the exploitation of the resources only. There was a fear that the attempt would not succeed, but would simply arouse China unnecessarily. This fear was justified when in early December China made a very strong protest against the idea of joint exploitation. It was not a simple propaganda rhetoric at all; so that the countries concerned with the problem, including the United States, had to be much more sensitive to this complaint, to the point where the exploration has had to be halted since April of this year.

Third, when Taiwan claimed jurisdiction over the oil resources around the Tiao-Yu-Tai Islands, the Senkaku Islands in Japanese, a group of eight uninhabited islands situated northeast of Taiwan, rather suddenly and unexpectedly there came up the problems of ownership of the islands between Japan and Taiwan.

Another point that I may add is with regard to China's attitude toward the 200-mile breadth of territorial waters. It was on November 20 last year, and again earlier this month, that China mentioned something about the Latin American struggle against the United States to keep up with this breadth. Another occasion at which reference was made by China on this point was at one of the sessions of the Japan-China nongovernmental fisheries talks, it was reported. These of course would not necessarily mean that China has the intention to adopt a similar breadth of territorial waters. But the reference on November 4 last year could have very well been taken to be a sign of her renewed interest in the problems of the sea, as well as a signal to what would follow; because she seldom has done anything entirely unrelated to subsequent developments. In other words, she would first break wind before showing excretion.

I have meant to make a brief report about what is happening in the East China Sea, because I have noticed unusual interest in the matter among the participants here. I would say in conclusion that the problem is

much more complicated than that of simply delimiting the continental shelves, for reasons easily imaginable.

al-Qaysi: I apologize for taking the floor now after having presented a paper this morning, but being a lawyer, I think it my duty to be faithful to my career and try to clarify certain points in the interest of correct legal conception. In the past few days we have heard some defense of customary international law, and we have heard also a denial of the existence of this customary international law. I simply raise the question: is it politically sound to deny the existence of customary international law of the sea and at the same time rely upon the same notion in the field of, let's say, international law of war and neutrality, or the law governing relations of States with respect to their land mass?

I realize very well that we are facing problems in relation to the sea, and we intend to solve these problems. But we do not necessarily need to deny the existence of customary international law, because this would be juridically wrong. We could say it is not adequate to serve the interests as they present themselves to us at this stage of technological development. I heard Mr. Beesley's discourse yesterday, and read his statements. I know a great deal of the juridical orientation in which he presents his statements, although I regret that I have not had the chance to know him personally. He develops his idea that unilateralism, or unilateral action, is something inherent in the notion of customary international law, and thus—and this is the way I understand it—we cannot rely on any argument which analytically, from a juridical point of view, refuses unilateral action simply by saying this is unilateral.

We realize that customary international law has not one component, but two. Naturally you would have to start by unilateral actions; but there is also the other element of acceptability by other States, by members of the international community. I think this is what Professor McDougal has in mind when he talks about reciprocity. I urge you not to lose sight of these considerations. There are problems which project themselves in interests; and I would be the last person on earth to say that these interests are not conflicting.

I come from a developing country, and we do have interests in the sea. We have interests in fisheries, minerals, oil, continental shelf and the like. All this presents new ideas to us. We are trying to get the best out of any reasonable system of accommodation, but we cannot say strike out this concept of law, or deny the existence of that concept. There has to be an accommodation. It is not important, from my own point of view, to argue whether Grotius was a great man or not, whether he was paid a handsome fee or not, or still further whether his view was accepted in Geneva or not. What is important is that we should concentrate all our energies on one single point, and that is there are all kinds of problems which have transformed throughout the centuries. There are also new problems and new technological advances, and there are conflicting interests. Our objective should be the accommodation of those interests, and I would not mind if we use those arguments to achieve the reasonable and equitable balance we desire.

Professor Caflisch tells us that Grotius did not say anything about fisheries. Grotius said something to the effect that the resources of the sea are inexhaustible. What resources of the sea were known in Grotius' time? I suppose fish was known in those days, was it not? We have to remember that there are also some vague and shady aspects in the development of the traditional concepts of the law of the sea. Is it not a historical fact that at one time a great maritime power relied on the *mare clausem* argument in a certain area of the sea, and at the same time relied on Grotius' *mare librum* argument in another area of the sea for different purposes? The same thing is true today. We should not fear these inconsistencies. Probably some people have projected views at this conference that might hint at an official negotiating position. An American gentleman told me this morning that the United States could be said to have adopted certain unilateral measures within the context of some fisheries arrangements. The phenomenon of unilateral claims more often than not is not arbitrary, for such claims are presented not out of disrespect to the law, but only after careful consideration of the needs of society.

But at the same time there are international interests. The real issue is to balance both these sets of interests. The question is not to preserve customary international law rigidly, nor is it to destroy it in its entirety. We should engage ourselves in a technique of developing new concepts that would not necessarily jeopardize what we already have, but should necessarily develop what we have.

Banquet Address

Reynaldo Galindo Pohl, Representative of El Salvador to the United Nations

Thursday evening, June 24

I express my gratitude to the Law of the Sea Institute and to the University of Rhode Island for having bestowed upon my country and upon myself the honor of this invitation to speak to you on the themes of the Sixth Annual Summer Conference of the Institute. The great academic reputation of the Institute and of this annual conference has been widely acknowledged in international circles.

Some academic and political circles are under the impression that in one of the continents that Hegel allowed himself to consider marginated from the stream

of history, some exotic ideas, to avoid less severe terms, have appeared in recent years concerning international law. What is being said and repeated is that some countries have had the disposition to extend their territorial sea to two hundred miles. The discussion of the thesis of the 200 miles without taking into consideration either qualifications or justifications has emerged from that Continent and produced a very strange path, first a noisy and surprising one and afterwards consistently advancing; to the degree that as of now nine Latin American countries with about 15,000 miles of sea coast have adhered, one way or another, not to the territorial sea of 200 miles, but to the common denominator of economic rights in a wide coastal strip. Also, various countries in Asia and Africa in one way or another have surpassed the 12-mile barrier, which is of a solid psychological nature, much more solid than if it were a question of a physical limit.

For those jurists who have been educated in the ideas of Grotius and in the magnificent maritime law of the English Admiralty, the ideas that are born in the Latin American countries sound like plain heresy. Nevertheless, given the epoch that we live in, in which many traditions are being questioned and in which each generation affirms its own personality by denying the achievements of the preceding generation, the situation, even conceived within a philosophy of the absurd, is not unusual for the present time. Stravinsky reached the peak of his glory with his dissonance, and Ionesco marked a new route with his theatre of the absurd. We are living, perhaps, the most contradictory, the most inquisitive and probably the most critical epoch of Western civilization. International law, with its undeniable and respected dominion, cannot remain at the margin of the reexamination of Western cultural inheritance.

The Latin American region is awakening rapidly and is trying to obtain a place in the sun and to contribute positively to the great sphere of culture to which it belongs, the European and Western culture. Its participation in that culture, of course, carries its own shape and colors, its own orientations; but at the same time coupled with the most dutiful acceptance of the Greek and Latin thought and of everything that has made Europe on the one hand Christian and on the other hand rationalist, equally ambivalent, internally tense and uninterruptedly evolutionary.

International law could not lag behind as if it were an island of serenity in an environment full of questioning, of doubts and of search for appropriate solutions for new circumstances. International law at present, in effect, responds as a whole to European circumstances, and has been conceived, developed and applied with a European mentality. We admire the great teachers, but we simply cannot repeat their lessons because the circumstances of our epoch are very different. It is our turn to do what they in their hour did: to examine the facts and to submit them to rational solutions in the light of the great principles of harmony and collaboration among all countries, to be able to respond to that Latin characteristic of Western culture that aims for the discovery of the fullness of the human being which the ancients called *"humanitas."*

The international community was a hypothesis to work with in the time of Grotius and Vitoria, but at present it has become a sociological reality, whose incipient centers of condensation are made up of international organizations headed by the United Nations. We have to start, not from a methodic supposition, but from a sociological reality made up of a universal community, the international community—an international community no longer European nor made up only of countries organized and spiritually fed by Europe but made up of all the countries of the world independent of the cultural circle they belong to, of the dominant ideologies and of the specific interests in presence. That international community reveals its own strength and guidelines for its own development, and also has its own interests, that sometimes coincide with and sometimes are antagonistic to those of smaller political circles, particularly of nation-States. The rise of the integrated regions which looms as one of the great socio-economic solutions of the twenty-first century, reveals the insufficiency of a great number of nation-States. Technology, in effect, has exceeded the dimensions of the traditional State, except in those cases in which a State is an integrated region due to its territorial extension and population, such as in the cases of the United States, the Soviet Union, and in the future perhaps of Brazil and India.

Technical and scientific progress has brought about an increasing process of realization in all orders of life. People and their governments have become conscious of specific objectives and the adequacy of means in relation to such objectives, and in this way there has been produced the ordering of national activities around programs of socio-economic development. The international community has become conscious that the concept of development as a world-wide program—transference of technology, investments, credits and planning—is for the benefit of all peoples. Prosperity, as peace and security, is indivisible, and a new feeling of distributive international justice must be the answer to the problems of development of the international community as a whole. The problem of development is not only of an economic nature, it is also a human problem of measure of relations and proportions; this is to say a problem of international justice that cannot be calculated with the traditional measures and indices. The new feeling of distributive international justice has made a breakthrough in the most eloquent fashion in the Declaration of Principles on the Seabed and Ocean Floor, approved by the United Nations General Assembly the 17th of December of 1970, concerning the distribution of benefits of the international zone of the seabed and ocean floor,

inasmuch as it declares that it will take into account not only present interests but also the needs of States.

It is only natural that the countries that have recently become members of the international community, after long years of either being marginal or having colonial status, want to reexamine many of the international rules conceived before their arriving at independence. In this respect, there is in Latin America a very important feeling of tradition that became noticeable immediately after achieving independence, when new principles destined to rule the relations of countries juridically equal but economically and militarily unequal were developed. The reexamination of the law of the sea that some of the Latin American countries have brought up is, therefore, consistent with their most ancient legal traditions.

The sea is the last of the great reserves of natural resources for the people of the world, and that is the reason for the interest that it causes. Depending on how the use of the sea is regulated, the programs of development could prove effective; or it could be that the distance which separates the two galaxies of people widens even more, one galaxy made up of the industrialized belt of the Northern Hemisphere and the other made up of the underdeveloped countries—otherwise called, with real euphemism, countries in the process of development. The problem of the law of the sea should be seen and appraised in the light of the programs of development, of the impact that that law will have on what is commonly called the Third World, and on the relative distance between the two galaxies of people—those which possess the wealth that comes from the uses of technology, and the others which possess hunger and sickness, but fortunately also the will to work and the determination to achieve knowledge.

When the rules of law are studied out of historical context, they seem very logical and the product of sound reasoning, as is the case in the rules of the three-mile territorial sea, and of freedom of fishing on the high seas, etc. But if one brings history back to memory, one is able to realize the existence of the interests in force. If all the countries of the world were developed, they would have the same real opportunity with their narrow national territorial sea limits and wide limits of the international sea zone. But as the situation is otherwise, the developing countries have a special interest in the waters and the seabed and ocean floor near their coast. For those countries that is the only reality. They do not play with the idea of being allowed to go to the Arctic or the Antarctic Seas, because of the simple reason that they lack the means to take advantage of those regions. If the sea is seen in relation to the issue of development, and as long as there exist the problems that this great issue creates, it is possible that one of the most direct and effective ways to help those countries in their effort to achieve development is to acknowledge their right to use the resources of the sea near their coast. The rule that would give the coastal States special rights over the continental shelf and over living resources could, in the future, if the present conditions of the international community were changed, become obsolete. Laws are not made for eternity, but to rule facts and solve problems of specific periods of time.

The Latin American countries that speak of 200 miles do not voice it in equal terms, but they have a common denominator which is the claim of specific economic rights. I understand that at least as far as my country is concerned, there is no interest in establishing a criminal and civil jurisdiction in specific zones beyond a maritime belt of 12 miles, nor any interest of blocking freedom of navigation or scientific investigation. My country claims—and this is my personal interpretation of this situation, for I am not making an official declaration—specific economic rights over the sea adjacent to its coast, for the simple reason that that is the sea that it will be able to exploit.

If the economic claims are solved, it will be relatively easier to solve problems of security, scientific investigation and so on. The ocean is a physical and economic unity. At the present stage of technology this fact must have an influence in the rules of the law of the sea.

An international agreement could be negotiated in the sense that, independent of the terms spelled out in national declarations, what really would be acknowledged for the coastal States is specific economic rights over hydrocarbons, biological and mineral resources. It is praiseworthy to note that in the last meeting of the enlarged Committee on the Peaceful Uses of the Seabed and Ocean Floor Beyond the Limits of National Jurisdiction, held in Geneva early this year, some of the maritime powers began to give sympathetic consideration to the exclusive and preferential rights of the coastal States in relation to specific zones located beyond 12 miles. It seems that at last, mental barriers are beginning to receive the characteristic impact of the closing of the second Christian millennium. A new enlightenment is taking place in some countries, for they begin to understand the claim of those countries that perceive in the sea adjacent to their coast the indispensable complement to their land natural resources.

On the other hand, due to the particular human and geographical circumstances of some regions, some solutions of regional character could be taken into consideration. A rule of law, in order to be just, should be in accordance with the different circumstances to which it is applied. This is the reason for the consideration in Latin America of the idea that without diminishing the universal principles, a normative regionalism ought to be included in the law of the sea. In some of the United Nations debates this idea has been labeled *normative pluralism*. Normative regionalism is the accommodation of general norms to specific conditions of human and physical geography.

When these issues are brought up, it is not a question of jumping backward three hundred years and returning to the theory of the *mare clausum*. That will be

entirely anachronistic. But no juridical rule is made for eternity. There is no reason whatsover that the rules of law that were incubated in the Europe of the 17th century ought to have an unlimited authority in time, and be considered as the only rational expression on this subject. When Grotius spoke about unlimited freedom to exploit the seas, for instance, he spoke in those terms due to the fact that considering the technology of his time, there was no possibility to use up the resources of the seas. At present those resources are being used up, and that is the reason for the need to rationalize the freedom of their exploitation. The extension of the rights of the coastal States does not constitute any disaster at all for the international community. The issue is to deal with positions that are forcing a reexamination of selected items of the law of the sea, in order to arrive at a new and real maritime world order.

It is being said or assumed that some Latin American countries are against the holding of a Third Conference on the Law of the Sea. That is not true. The Latin American countries want that Conference, for it will provide them with a political and technical forum to present their thesis. Nothing could be more beneficial for the international community than a world-wide agreement on the most controversial issues of the law of the sea. The national claims—unilateral positions—can become sources of international law. Each new position has its stridence and it is the object of some misunderstanding, but in the long run it connects with its historical antecedents. I am in favor of an international agreement because, to me, acknowledged rights are more valuable than contested rights.

All the problems of the sea are intimately linked; that is the reason for the Latin American thesis that the Third Conference on the Law of the Sea should be comprehensive enough, so as to take up all the matters of interest to both the maritime powers and the developing countries. This does not mean that the law of the sea in its entirety should be subjected to question. In my opinion a list of items to be dealt with by the Conference could be drawn up with the help of some general guidelines, such as the following: (1) maritime items that are, at present, subject of controversy between States; (2) maritime items that, although not subject to present controversy, have been left pending in international law, insofar as they are subject of diverse rules, as a sign of a normative vacuum of a general kind; and (3) maritime items that, although already taken up and solved by international law, due to technological discoveries and to the need of their submission to a more strict process of rationalization, obviously have to be reexamined.

The global treatment of the controversial subjects, as of those which are still pending of solution and of those that were solved but whose solutions have become obsolete, will allow each State to make a comprehensive analysis of its interests and goals on the different subjects; and therefore accommodation and coordination of interests will be relatively easier. The holding of a comprehensive conference increases the room to maneuver; on the other hand it is diminished if its scope is limited to a handful of subjects.

But I categorically and clearly state that for the developing countries the so-called freedoms of the seas are beautiful words, but unfortunately they are also words completely empty since the developing countries lack the means to make use of such freedoms; circumstance leaving them only with one possibility to count on a complementary source of resources: their interests on the sea adjacent to their coast.

Our purpose in the present case is not to do an academic job or to legislate for the land of Utopia, but to face pressing facts of the international community, the two-thirds of which painfully struggle with economic underdevelopment. The maintenance of the freedom of the high seas has to follow the same pattern as the individual freedoms in the national States, insofar that there are not absolute freedoms and that all freedoms complement each other, integrating a system which is subject to regulation so that the real exercise of freedoms will be accessible to everybody. The freedoms of the seas that international law guarantees must remain in justice. The purpose is not to antagonize freedom and justice, but to use freedom with justice and to make of justice the supreme law of freedom. Time does not look behind, it always lies ahead of us; as does life, men, people, and the international community.

I have the best hopes that the international academic community will offer new orientations to show governments and delegations in the preparations and discussions of the Third Conference on the Sea. For this purpose, the task of the Law of the Sea Institute of the University of Rhode Island is of the greatest importance and deserves congratulations. The navigators that challenged the mental barriers of old Europe, the *non plus ultra,* found the roundness of the earth. The future of international relations is in just relations, shaped with a sense of realism and applied with a great measure of reason. All this so that men on this small planet called Earth understand better the unity of their destiny.

CONTRIBUTED PAPERS

Thoughts on the Decline of the U. S. Standard of Living: A Response to Dr. Adelman

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INTRODUCTION

The world will see major economic changes in the next ten years, according to Dr. Morris Adelman, Professor of Economics, Massachusetts Institute of Technology.[1] These economic changes imply significant socio-economic changes in the developed nations. A new Law of the Sea regime will shortly be attempted. Unless this regime realistically recognizes these changes, it is doomed to failure. This paper examines the impact of these changes on the United States. The impact on other States will vary. This paper initially makes the assumption that the world pattern of energy production and mineral exploitation will not substantially change its present trends. This assumption will be discussed at the end of the paper.

Dr. Adelman foresees that the roles of the petroleum consumer and producer States will radically change over the next decade as the petroleum reserves of the producer States change, and especially as the relationship of the petroleum companies to the producer States changes. These changes are of two types; (1) Petroleum reserves of some major consumer States will become depleted and the major exploitable world reserves will lie in (presently) underdeveloped countries. (2) Production control of the petroleum reserves will pass from the petroleum companies to the producer State.

These two processes imply major changes in the social status of the United States which will be pointed out in this paper. I assume the situation in all mineral raw resources will parallel that of petroleum. The changes include the following:

1. The exploitable petroleum reserves of the United States will become more expensive to exploit and become scarcer. This will be juxtaposed against large and much cheaper reserves in mainly underdeveloped countries. Hence, very strong economic pressure will exist to import foreign oil.

2. In the past, the production and distribution of the world's petroleum has been controlled primarily by U.S. petroleum companies and secondarily by European companies. Generally, little of the value of the produced oil was returned to the producer State. Most of the value was retained by the companies and returned to the consumer States which fathered the companies. Hence, the generated massive flow of money was generally within a domestic consumer economy and beneficial to that economy. The producer State merely cooperated in the export of her reserves. In earlier years especially, the United States was both producer and consumer.

3. In recent years, this pattern has changed. The producer State has demanded increasing control over her petroleum reserves and she has demanded an increasing tariff on exported oil. This tariff has been met as the consumer nations, including the United States, required increasing amounts of oil. Some of the producer States, such as Venezuela, will probably soon take complete control over her petroleum production. Thus, the control and production of the world's petroleum is passing out of the hands of the consumer nations.

4. Dr. Adelman sees no alteration to this trend and foresees a greatly changed role between the producer and consumer States with control of petroleum production lying with the producer State.

The above then states Dr. Adelman's case, either explicitly or implicitly. I will now deal with the implications of this forecast.

Whether the producer nations will have a stranglehold on petroleum is debatable. Several such nations will exist, for example Indonesia, the Arabian States, and Venezuela. They could cooperate to stifle production, but this seems unlikely, because of the importance of petroleum export to their own economies.

[1] M. Adelman, "States' Interests in Offshore Oil." Kingston, Rhode Island: Law of the Sea Conference, June 22, 1971.

More likely, they will impose tariffs, perhaps through cooperation, that are as high as the market will bear—and which tariffs may indeed determine the market. The production costs hence will become a significant part of the cost of petroleum.

Incidently, the market costs will not be easy to predict because they will depend on such factors as (1) competition or cooperation between the producer States, (2) degree of State control over production companies, (3) control of petroleum, transportation and distribution by the present petroleum companies or whether intrusions will occur by new companies controlled wholly or partly by States, such as BP today, and (4) imposition of trade barriers by consumer States. Suffice it to say that major changes in the petroleum market will occur that will strongly effect the U.S. economy.

All of the foregoing leads up to the conclusion that a truly massive flow of cash will begin to move from the consumer nations to the producer nations—and remember that I am not discussing merely petroleum but virtually all raw mineral resources.

BALANCE OF PAYMENTS PROBLEM

The balance of payments problem can be estimated as follows. M. A. Wright,[2] Chairman of the Board, Humble Oil and Refining Company, has estimated the demand and imports for petroleum. His estimates compared to earlier estimates reported by the National Petroleum Council[3] indicate that demand is growing at the fastest rate earlier estimated. The early estimates generally assumed a steady 20 percent of the demand provided by imports. In contrast, Wright estimates that this rate is rapidly changing and will be 62 percent in 1985, with the domestic production remaining essentially constant from the present time.

Table 1. *U. S. liquid petroleum supply-demand, billion barrels per year (Wright, 1971).*

	1970	1975	1980	1985
Demand	5.4	7.2	8.9	10.3
Domestic supply	4.2	4.2	4.0	3.9
Imports	1.2	3.0	4.9	6.4
Imports as percent of total	(22)	(42)	(55)	(62)

The balance of payments problem will be proportional to the royalties and other costs paid to the producing State. The royalties and other costs paid to the producer States vary from State to State. For instance, the cost in Venezuela is about $2.80 per barrel (varying slightly from port to port) while the cost in Libya is $3.45 per barrel, increasing by steps to $3.68 in January 1975.[4] Let us assume that $3.00 per barrel is a reasonable cost for estimates. This will certainly be conservative by future standards, both because of inflation and because of increased royalties and of price structures rising out of nationalization.

The cash outflow will be estimated by several means to give high and low estimates.

Table 2. *Estimated cash outflow for liquid petroleum imports (billions of dollars).*

Low estimate: Royalty of $3.00 per barrel at a 20 percent importation rate on Wright's total demand estimate.

Medium estimate: Royalty of $3.00 per barrel at Wright's importation rate.

High estimate: Royalty of twice $3.00 per barrel ($6.00/barrel) at Wright's importation rate.*

	1970	1975	1980	1985
Low estimate	3.2	4.3	5.3	6.2
Medium estimate	3.6	9.0	14.7	19.2
High estimate	7.2	18.0	28.4	38.4

*M. A. Wright, "U. S. Energy Crisis and What Can Be Done About It," *Ocean Industry*, Vol. 6, No. 6 (June, 1971), pp. 11-18.

The estimate for 1970 is not directly related to present payments and is included only for comparison. However, it is indicative. For example, the total 1971 payment to the Near Eastern States is given as $2.1 billion[5].

The cash flow estimates in Table 2 can be compared to the U.S. balance of payments for 1969.[6]

Table 3. *1969 U. S. balance of payments (in billions of dollars).*

Recorded Receipts	60.9
Exports of goods and services	55.5
Merchandise	36.5
Transportation	3.1
Foreign Travel in U. S.	2.1
Miscellaneous Services	3.5
Military Transactions	1.5
Investment Income	8.8
Other	5.3
Recorded Payments	65.2
Imports of goods and services	53.6
Merchandise	35.8
Transportation	3.6
U. S. Travel Abroad	3.4
Miscellaneous Services	1.4
Military Expenditures	4.8
Investment Income	4.5
Private Capital Outflow	5.4
Other	6.2
Net Unrecorded Transactions	—2.9
Balance of Payments, Liquidity Basis	—7.2

If the calculated cash flow low estimate prevails, then the crisis is some decades off. If the medium estimate prevails, the crisis will be apparent in a decade or two. If the high estimate prevails, the crisis will occur in this decade.

[2]M. A. Wright, "U. S. Energy Crisis and What Can Be Done About It." *Ocean Industry*, Vol. 6, No. 6 (June, 1971), pp. 11-18.

[3]E. D. Brockett and H. D. Hedberg, *Petroleum Resources Under the Sea Floor.* (Washington, D. C.: National Petroleum Council, 1969).

[4]Data supplied by Lana Ekomoff, American Petroleum Institute, from *Petroleum Intelligence Weekly* (May 24, 1971) and *Petroleum Press Service* (March, May 1971).

[5]Ekomoff, *op. cit.*

[6]L. H. Long, *The 1971 World Almanac.* (New York: Newspaper Enterprise Assoc. Inc., 1970), p. 363.

PREDICTIONS

Let me try to predict what this will mean.

1. The U.S. balance of payments will be so dominated by foreign costs of oil that severe restrictions will have to be made to prevent failure of U.S. overseas credit. These restrictions could include (1) restriction of petroleum imports and hence restriction of personal consumption, either by (a) rationing or (b) very high taxation; (2) restrictions on overseas investments; (3) restrictions on U.S. military activities overseas; (4) restrictions on personal overseas travel, at least financially, and (5) restrictions on importation of all foreign goods.

These restrictions are *inevitable*. They can be postponed by very heavy exploitation of U.S. petroleum reserves—however, this simply hastens the depletion of those reserves making future restrictions even worse.

2. An alternative to the prediction above is the conversion of the United States into a much more active exporter of manufactured goods, food and services. This, too, implies a severe cutback on the U.S. public in terms of personal consumption, but it would lead to a more manageable balance of payments.

3. In either case, U.S. standard of living is *inevitably* going to fall. Prices, especially for petroleum, are going to be much higher. Real income cannot keep pace and hence consumption will have to decrease. These need not lead to a deterioration of the quality of life if wise decisions are made at every level, an unlikely expectation.

4. In contrast, the underdeveloped producer nations will experience an increasing receipt of rent and capital. This will not only encourage industry but consumption as well. These nations, too, will become important importers of manufactured goods, food and services. If they can control population, their standard of living will rapidly climb as well. Some of the money will return in trade to the United States, but her competitive position as a manufacturing nation is being rapidly eroded, especially by nations such as, ironically, Japan and West Germany. Whether the United States will share in this reflected prosperity, is debatable. Her present main advantage is an advanced technology.

5. In other words, the United States economically will increasingly come to resemble England of today where consumption and travel must be related to her balance of payments. In contrast, Canada should be able to manage her resources better because of a smaller population, but to do so, she may have to begin to ration her exports of petroleum and other raw mineral resources.

6. Economically, the United States will still have three strong assets—providing she does not squander them by neglect: (1) food production, (2) education and (3) physical beauty. Hence, the United States will be able to export food, technical services including air transportation, and highly technical devices. In turn, foreign visitors will come in increasing numbers as tourists and students—the reverse of the present stream of U.S. travel. These visitors will increasingly come from non-European countries.

Hence the conclusions must be:

1. The U.S. standard of living will turn sharply downward over this next decade.

2. Great care must be taken to preserve (1) a very sound agriculture, (2) a very sound university system, (3) a very sound technical industry and (4) a very sound ecology which is the basis of tourism and the quality of life.

These predictions are so dire that alternate means of energy production and mineral exploitation must be explored. Nuclear power stations for electricity generation are now being rapidly built. The western oil shales are proposed as a major petroleum reserve that will eventually become economic when prices are high enough. New breakthroughs in mineral processing technology[7] indicate that exploitation of manganese nodules for several important metals is economically feasible. However, all of these developments affect the environment in major ways. The nuclear power stations will produce large amounts of radioactive waste for which the disposal problem has not yet been solved satisfactorily. The production of petroleum from oil shale will involve open strip mines and will produce large amounts of waste rock ash and potentially much airborne ash and gases. The processing of the manganese nodules will produce large amounts of waste minerals and will potentially produce moderate amounts of waste chemical solutions, all of which must be disposed of. With the present emphasis on pollution and preserving the environment, the factors just mentioned must be taken care of in a socially acceptable manner. These factors, therefore, represent major production costs and problems which were largely ignored in the past. Hence the development of new energy and mineral resources has its own inherent problems. Only by rapid action and considerable ingenuity can these alternate resources be sufficiently exploited in time to mitigate my earlier socio-economic predictions.

The context of Dr. Adelman's prediction was a discussion of an impending conference to formulate law of the sea. Such law must deal with the realities of the future resource distribution and not the ephemeral world of today. The great danger is that in our futile efforts to preserve our standard of living economically and politically, we may ruin all four aspects of the final recommendation.

[7] M. D. Taylor, "Worthless Nodules Become Valuable." *Ocean Industry*, Vol. 6, no. 6 (June, 1971), p. 27-28.

The Northeast Atlantic Fisheries Crisis

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For several years now, those concerned with the extensive fishery resources of the Northwest Atlantic, and especially those resources of the Georges Banks area off Massachusetts, have looked with growing alarm at the ever increasing exploitation of these prolific grounds. Traditionally, these areas have supported the bulk of landings of groundfish such as haddock and cod, which contributed substantially to New England's economy and development. In addition to the harvest of these groundfish species, other species such as mackerel, flounder, redfish and herring abounded and were utilized to varying degrees by United States and Canadian fishermen. Besides their value as commercial species, some of these fishes are also important to the food supply of sport fish sought by the millions of Atlantic Coast anglers. Although landings of these several species varied over the years and fluctuations in abundance undoubtedly occurred, there was little indication of over-fishing and many experts felt that the supply was inexhaustible.

In less than 10 years the situation has changed completely. Early in the 1960's the Soviets moved into these waters in large numbers and were followed by other Communist bloc and free nations from Europe. These government-subsidized fleets consisted of everything from small, obsolete side trawlers to huge support ships capable of complete servicing of the catching vessels. By 1970 it was estimated that the foreign fleet consisted of over 1,000 vessels which spent at least part of the year in the Georges Banks area.

The consequences of this fantastic increase in fishing effort are now becoming clear. One by one the most abundant and economically important species of fish have been systematically exploited by "pulse" fishing. "Pulse" fishing consists of directing intense effort to a particular fishery until it is no longer economically feasible to continue. When that point is reached the fleet switches to another fishery or species and the exploitation proceeds again.

Unfortunately, with the present state of knowledge, biologists cannot predict whether various species, after being subjected to such intense exploitation, can adequately reproduce and thus replenish their diminished population numbers. There is the certain knowledge that terrestrial or aerial species such as the American bison, the passenger pigeon and the whooping crane have never regained their population size after similar over-exploitation.

Although it may seem inconceivable, the most seriously threatened fishery resources are those which have been the most prolific. Only those species whose sheer numbers provide a huge source of available protein are sought by these mobile harvesters. Through fleet communications the catching vessels are homed in on fish concentrations after special scout vessels have systematically plotted their abundance. In this manner, constant pressure is applied to the schools of fish as they go through their normal seasonal movements or migrations. No longer are the fish safe from capture if they follow their food supply up off the bottom into the mid-depths or surface waters. These fleets have effectively developed the mid-water trawl which can be used at whatever depth the fish are present. When coupled with electronic gear which can pinpoint fish concentrations, the capability for almost complete annihilation of each school is realized.

In the spring of 1971 biologists from the National Marine Fisheries Service estimated that the formerly enormous stocks of sea herring off our Atlantic Coast had been reduced by 95 percent of their abundance in just a few years of intense fishing. This exploitation has occurred so rapidly that no management controls have been implemented by the only commission charged with resource responsibilities in these international waters. Thus it is apparent that "pulse" fishing is capable of and has in fact drastically over-exploited fish populations before the existing control mechanism can be applied.

The International Commission for Northwest Atlantic Fisheries (ICNAF) was set up in 1949. This Commission now consists of 15 member nations who have a direct interest in the fisheries of this area. The Commission is charged with the responsibility of ". . . investigating, protecting and conserving the fisheries of the Northwest Atlantic Ocean in order to make possible the maintenance of a maximum sustained catch from these fisheries . . ." Within the convention area no other jurisdiction with regard to fisheries exists. The United States claims a territorial sea of three miles with an additional nine mile contiguous zone in which foreign fishing is controlled. Canada has recently moved unilaterally to control fishing in the Gulf of St. Lawrence and the Bay of Fundy but apparently will abide by ICNAF regulations in these former international waters.

When ICNAF was originally chartered, "pulse" fishing was unknown in the Northwest Atlantic and no one anticipated the vast buildup of foreign fleets which subsequently occurred. Since ratification by the member nations, an adequate system of fishing controls has been extremely difficult to develop. Initially, minimum net mesh sizes to control the harvesting of undersized haddock were imposed in 1952. Thus this species was the principal recipient of management measures in the convention area. It has continued to receive the most attention, and a variety of conservation measures for haddock have been adopted in recent years. It is not unreasonable then to review the present status of this most managed species.

In the spring of 1971 United States biologists recommended that *no* haddock be taken in the ICNAF area in order to preserve the dwindling remnants of this fishery which had produced 547 million pounds in 1965. So reduced are the numbers of haddock now that there is a strong possibility that this species will disappear from these waters in the next few years.

The cause for this ecological disaster has been clearly documented. In 1965 the Soviet fleet reported landings of 283 million pounds of haddock. This corresponded to average annual landings by United States fishermen of 113 million pounds. Most of the haddock taken by the Soviets were young fish from an unusually abundant year class which was spawned in 1963. This huge year class would have sustained the normal U.S. fishery into the 1970's and at the same time provided ample breeding stock for future generations of haddock. Compounding this tragedy is the fact that the immature haddock taken by the Soviets in 1965 and 1966 were too small to be of high market value.

Thus a review of the most studied, most managed and most valued species in the ICNAF area clearly shows that the existing international controls were not adequate to preserve it for the future. Unfortunately, there is no indication that what has happened to the haddock is an isolated situation. On the contrary, we can fully expect it to happen with herring, yellowtail flounder, cod, mackerel, sea scallops, lobsters and other species of sufficient abundance to make them economically important. It will happen because ICNAF is not capable of acting in time to prevent it, and, in fact, only reacts after the tragedy has occurred. The international machinery involved is so time-consuming that it cannot hope to keep pace with the technological capabilities of the fishing nations involved. In addition, the Commission has not even addressed the real issue, which is total fishing pressure.

Through its species management approach ICNAF is forced into imposing regulations for a particular species after it has been documented that that species has been overfished. In actuality, these regulations have come about after the "pulse" fishing has already transferred to another victim. Until some control can be exerted on the total harvest capability of the nations involved, no effective management will exist. Supporters of ICNAF will point out that the international procedures are being changed and improved and that eventually controls will be adequate for effective management; however, even the most optimistic supporters of ICNAF will admit that truly effective management is at least several years off.

It is ecologically irresponsible to know that these valuable protein resources are being over-exploited without sounding an alarm. No one knows what the ultimate result of extinction of these species would be on the total marine ecosystem. One distinct possibility could be the replacement of these valuable fish with species of much less value to man. The consequence of man's activities on the land are painfully apparent almost everywhere now. Must we also rape the resources of the ocean to satisfy short-sighted economic gains?

Possibly there is still time if the public, through its federal agencies, shows its immediate concern by instituting emergency controls on the total fishing effort in these waters. Realistically, this could best be accomplished by unilateral or bilateral action by the nations most traditionally involved, the United States and Canada. The argument that such action would run counter to international law can best be answered by the fact that a lack of appropriate action disregards an even more fundamental law—that of conservation of living resources.

We therefore call upon the Governor and the General Court of the Commonwealth of Massachusetts to request the President and the Congress of the United States to appoint immediately a special panel of fishery resource experts who will report their findings together with recommendations for appropriate action to the Congress of the United States within six months. We owe at least this much to these living resources which have sustained us so ably in the past.

Law of the Sea Negotiations and the Tuna Fishery

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One of the most important problems to be negotiated at the next LOS Conference is that of national fishing interests. References have been made at the present conference to the impact on the exploitation of the valuable tuna resource which might result from nonagreement, possibly leading to unilateral action on the part of coastal States such as have already been exercised by some South American countries. The conclusion appears to be that tuna production will suffer, particularly in the short run and possibly in the long run. Agreements leading to the adoption of extended national jurisdiction over coastal waters through such vehicles as extended territorial seas or exclusive fishing rights probably would have a similar impact on tuna production, depending on the degree of jurisdiction extended.

In view of the importance of negotiations in regard to their effect on the tuna fishery, the purpose of this paper is to discuss some of the factors underlying tuna production and to suggest how they relate to future production under extended coastal jurisdictions. The conclusions of this paper are tentative.

TUNA PRODUCTION

Tuna has been caught since antiquity, but on a commercial basis only since the early part of the

present century. The fishery today is large, mature and well-established in the world seafood producing, processing and marketing economy, accounting for about 6 percent of the total value of the world's fish production, excluding Russia and mainland China.[1] Japan, the leading producer of tuna, harvests over half a million metric tons annually, which is about 50 percent of total world tuna production. The United States is the second leading producer with an annual harvest of approximately 200,000 metric tons. In recent years, China (Taiwan) and South Korea have emerged as major producers with 1969 harvests of 89,000 and 69,000 metric tons respectively, surpassing such established producers as France and Spain (49,000 and 32,000 metric, tons respectively). Many other nations from all continents participate in this fishery but on a smaller scale.

The primary markets for tuna are in the United States, Japan and Western Europe. In 1969, the United States consumed 461,000 metric tons while Japanese consumption was 325,000 metric tons. The third largest market is in the EEC countries where consumption exceeds 200,000 metric tons annually. Various studies indicate that the demand for tuna is a function of income and has been expanding as population and per capita income have risen in the major consuming nations. For example, in the United States, per capita consumption of tuna has been increasing at a rate of .04 kilograms per year since 1960.[2] Projections by Bell[3] suggest that the demand for tuna will continue to grow as per capita income and population increase.

This growing demand in the face of a biologically constrained resource leads to the high unit value of tuna throughout the world's markets. Because of this high unit value and the availability of the resource to many nations, international competition in the exploitation of tuna results. In many of the less developed nations, tuna is too expensive a commodity to compete with other sources of protein. Production by these countries is used mainly as a source of foreign exchange obtained through international trade.

THE RESOURCE

The tuna species are active, cosmopolitan and predatory, inhabiting oceanic and coastal areas of the world's major oceans. One or more of the major commercial species are found in varying quantities throughout the world's tropical and temperate waters. In order to suggest what effect negotiations might have on the availability of tuna stocks, it is important to know their distribution throughout the oceans and the resource potential.

Much of the information regarding tuna distribution comes from the location and volume of commercial catches. In this respect, approximately two-thirds of the world tuna harvest, including substantial quantities of all major commercial species, are taken in the Pacific Ocean. Commercial catches of bigeye are made in the open seas in an area around 30°N and in a wider area around the equator, one of the most important fisheries being conducted by the Japanese in the eastern part of the Equatorial Currents.[4] Although some fishing takes place off the United States coast and in the western boundaries, the major fisheries for bigeye in the Pacific are conducted in the open seas, primarily by Japanese fishermen.

The albacore fishery in the Pacific is also primarily a Japanese undertaking. The largest Commercial catches are taken in the western part in two extensive fishing grounds, one in the north between about 20°N and 40°N extending from Japan to about mid-ocean, and the other in the South Pacific extending from Australia to about 100°W. In the eastern part, albacore fishing exists along the United States coast extending from Washington to the Southern California Peninsula.[5]

The bluefin fishing grounds in the Pacific generally lie in near-coastal waters. In the western part they are limited to waters around the Luzon Islands, Taiwan, The Ryukyu Islands and Japan, where the Kuroshio Currents extend. The fishery in the eastern part is a limited coastal area off California.[6] Bluefin catches account for only about 6 percent of the total Pacific tuna harvest.

Yellowfin are found in a more or less continuous band around the equator. The large Japanese fishery ranges the Pacific between about 30° north and south of the equator, generally taking larger catches in the western than the eastern half. Heavy concentrations of fishing, primarily by the Japanese, take place in waters of the western boundaries and around the Japanese home islands[7] One of the world's major fishing grounds for yellowfin is in the eastern tropical Pacific between about 30° north and south of the equator to about 500 miles offshore.[8] This is primarily a United States fishery and yields approximately 80,000 metric tons of yellowfin annually.

Skipjack appear to occur in some quantities throughout the tropical and temperate waters of the Pacific, being taken in commercial quantities along both the

[1]Derived from statistics published in the *FAO Yearbook of Fishery Statistics* (1968).

[2]G. C. Broadhead, "International Trade—Tuna." 10 FC/DEV/71/4, FAO, United Nations (1971), pp. 1-27.

[3]F. W. Bell, "Economic Projections of the World Demand and Supply of Tuna, 1970-90." Working Paper No. 18, Bureau of Commercial Fisheries Division of Economic Research (1969), pp. 1-55.

[4]F. Nagasaki, "Some Japanese Far-Sea Fisheries." Washington Law Review, Vol. 43 (1967), pp. 197-219.

[5]H. Yabe, Y. Yabuta and S. Ueyanagi, "Comparative Distribution of Eggs, Larvae and Adults in Relations to Biotic and Abiotic Environmental Factors." *Proceedings* of the World Scientific Meeting on the Biology of Tunas and Related Species, F16/R.6.1, FAO, United Nations (1963).

[6]*Ibid.*

[7]*Ibid.*

[8]J. Joseph, "Management of Tropical Tunas in the Eastern Tropical Pacific Ocean." *Trans. Amer. Fish. Soc.*, Vol. 99, No. 3 (1970), pp. 629-648.

eastern and western boundaries.[9] In the western Pacific, skipjack are taken primarily north of the equator near the Japanese home islands. Smaller fisheries are conducted around the Hawaiian Islands, Micronesia and French Polynesia. Major commercial quantities are taken in the eastern Tropical Pacific off Northern Mexico and Central and South America, mainly within 250 miles offshore.[10]

A large part of the tuna fishery growth in recent years has taken place in the Atlantic Ocean. The major fishery is a high-seas fishery for yellowfin and bigeye, including small quantities of albacore, which covers most of the tropical and subtropical waters. A smaller surface fishery exists for yellowfin, skipjack and bigeye along the West African coast. There is also a small fishery for albacore and smaller amounts of bluefin in the Bay of Biscay. Bluefin are caught in small quantities off the northern West African coast, east of the British Isles in the North Sea, and off the east coast of the United States.[11] Approximately 21 percent of the annual tuna harvest is presently taken from Atlantic waters.

Exploitation on a commercial basis of the tuna stocks in the Indian Ocean has taken place only during the last two decades. There is presently a major high-seas fishery for yellowfin, bigeye, albacore and southern bluefin. Bigeye and yellowfin are caught up to 10° south and north of the equator, mainly in the eastern half of the Ocean. A smaller surface fishery exists on the eastern boundaries, with bluefin taken off Australia and yellowfin and other species around Indonesia.[12]

One of the vital questions regarding future exploitation is whether the resource is capable of supporting increased production. It is impossible to state with any degree of assurance what the potential tuna harvest is; however, research by Gulland[13] and others suggests that all of the large commercial species i.e., albacore, bigeye, bluefin and yellowfin, are close to being fully exploited in all oceans. Only the skipjack resource seems to be capable of supporting increased production. In the Pacific large quantities of skipjack appear to be available throughout the ocean between about 45° north and south of the equator.[14] Skipjack in the Atlantic are virtually unexploited but appear plentiful throughout the warm tropical and subtropical waters.[15]

The Indian Ocean skipjack resource is also available in large quantities in the warm waters of the tropical and subtropical seas. Except for small local fisheries, and small fisheries in the Maldive Islands and around Ceylon, skipjack are virtually unexploited in this ocean.[16] Skipjack is almost exclusively caught by surface gear, either live bait fishing or purse-seining. Increased production of this species hinges on the development of more efficient exploitation. Marr *et al.*[17] suggest that to bring production of skipjack yield will involve one or both of two technological problems: the provision of an adequate supply of bait, and the development of effective purse-seining techniques.

Although no attempt has been made to quantify stock distributions, the greater part of the tuna resource appears to be located in oceanic areas of the world's waters. However, important fishing grounds such as in the eastern Tropical Pacific are located in near-coastal waters. In this respect, the extension of national jurisdictions over coastal waters would have an effect on the availability of tuna stocks to foreign nationals fishing these grounds. It seems unlikely that these valuable stocks would not be harvested, suggesting two possibilities for continued exploitation of coastal waters: (1) some type of agreement licensing foreign fishing interests might be arranged, enabling the coastal nations to reap some of the rewards of production or (2) the tuna stocks might be harvested by the coastal States themselves. The first possibility would increase the cost of exploitation, given the state of technology, while the second hinges on the ability of the coastal States to harvest the resource, involving both technological and economic considerations. Another possibility which will not be discussed here is that the fleets, being highly mobile, might concentrate their fishing efforts on other productive grounds located in non-coastal waters. How this would affect the availability of the resource depends on largely unknown biological and ecological factors.

With respect to the first possibility suggested, a licensing or fee arrangement would increase the costs of exploitation by States operating long-range fisheries in foreign coastal waters. Vessels operating in the present long-range fisheries often must remain on the fishing grounds for many days at a time. These vessels either return to their home port and unload, or unload to a refrigerated carrier or to a distant port from which their catch is transshipped to market. The requirements of these long-range fisheries in terms of vessel operations, refrigeration, repair and maintenance, and support facilities are substantial. Many of the less-developed countries would require technical and/or financial assistance if they were to develop or expand their long-range fleets. Therefore, production by foreign fishermen would probably be limited, at least in the

[9]M. P. Miyako, "Distribution of Skipjack in the Pacific Ocean, Based on Records of Incidental Catches of the Japanese Longline Tuna Fishery." *Bull. Inter-Amer. Trop. Tuna Comm.*, Vol. 12, No. 7 (1968), pp. 511-583.

[10]J. Joseph and T. P. Calkins, "Population Dynamics of the Skipjack Tuna in the Eastern Pacific Ocean." *Bull. Inter-Amer. Trop. Tuna Comm.*, Vol. 13, No. 1 (1969), pp. 1-273.

[11]R. S. Shomura, "The Atlantic Tuna Fisheries." *Comm. Fish. Review*, Vol. 28, No. 5 (1966).

[12]D. H. Cushing, "Survey of Resources in the Indian Ocean and Indonesia Area." 10FC/DEV/71/2, FAO, United Nations (1971).

[13]J. A. Gulland, "The Fish Resources of the Oceans." FIRS/T97, FAO, United Nations (1970).

[14]Joseph and Calkins, *op. cit.*

[15]Shomura, *op. cit.*

[16]Cushing, *op. cit.*

[17]J. C. Marr, D. K. Ghosh, G. Pontecorvo, B. J. Rothschild and A. R. Tussing, "A Plan for Fishery Development in the Indian Ocean." 10FC/DEV/71/1, FAO, United Nations (1971), pp. 1-78.

short run, to the established fleets or those less-developed States which might obtain the necessary technical and financial assistance.

The present costs of long-range operations are already relatively high for many of the participating States, especially the developed nation with high opportunity costs. Licensing costs or fishing fees, under extended coastal jurisdiction, would increase these costs even more. If production at the present level were to be continued, prices would have to rise in relation to the increased costs of exploitation. How the market would respond to these increases depends on factors such as price and income elasticities. In the final analysis, the effect on tuna production would be felt through the price-cost ratio.

The second possibility regarding the exploitation of the coastal tuna stocks by the States exercising jurisdiction would depend on economic and technological considerations. Undoubtedly, some of these nations would fish their coastal waters more intensively, but to what extent would depend on the availability of capital and labor. Technical and financial assistance would be necessary for the development of these fisheries by the less-developed coastal States, especially if the more capital intensive fishing methods such as purse-seining were used. However, the less-developed countries generally have low labor costs enabling them to use intensive labor fishing techniques such as the live-bait, pole and line fishing method. Vessel, gear and refrigeration requirements would be relatively low because the operating vessels could travel to and from the fishing grounds each day. Support facilities would probably have to be expanded, depending on the level of increased production. The major problem to be overcome would be the development of bait fisheries. Much time and effort must be expended to locate, catch and preserve live-bait for use in the tuna fishery. Although no final conclusions can be drawn, it seems unlikely that in the short-run, coastal States would be able to increase their tuna harvests enough to offset the loss in production by foreign fishermen.

Based on the papers presented and the discussions at this conference, it seems likely that coastal States, either through agreement or unilateral action, will enjoy extended jurisdiction over fishing in waters off their coasts. As a consequence, some of the tuna stocks presently located in international waters will come under the control of coastal States. No attempt has been made to estimate the magnitude of the stocks involved; however, substantial quantities of the tuna resource would fall within these limits, and already have in the eastern Tropical Pacific. In the short run, tuna production will probably decrease, unless arrangements are made in advance to allow foreign fishermen to continue exploiting the stocks within the new jurisdictional limits. Prices will undoubtedly increase with the main beneficiaries being those States exercising control over coastal waters where tuna are found.

The Factual Underpinnings of Dynamic Change in the Law of the Sea

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The current multifaceted debate concerning the law of the sea is resplendent with fervent calls for the "proper" management of the ocean's resources and the necessity of considering scientific, social and economic criteria in order to attain that goal. Formulation, within the context of that debate, of such concepts as the common heritage of mankind, international management of world fisheries, and an ocean-wide "use tax" reflects an increased interest on the international level in that function of law termed by Pound "co-operative."[1] Taken with the frequent calls for legal regimes capable of reflecting the constant development of ocean technologies and other dynamic elements of man's oceanic milieu and the increasing attention to the processes of international communication and decision-making, this seems a vindication of Pound's concept of law as "social engineering" involving a process ". . . giving no more than compromise or adjustments, valid (because effective) for the time and place."[2]

These developments are importantly connected with a broadening of the range of actual mechanisms of change available within the international decision-making process. Friedmann makes the following comment regarding the nature of legal change within the modern international community and its links to increased communication:

> Modern international society is, after all, a compound of nations which dispose of the most modern and sophisticated media of communication, including legal communication. . . . It does not have to rely on the slow growth of custom, or on the cumbrous diplomatic machinery of the time of Grotius, or even of the nineteenth century. Any problem, of territorial waters, fisheries rights, exploitation of continental shelves, or the protection of foreign investment, is made the subject of continuous discussion and articulation, by draft conventions, conferences, resolutions and the like . . . this difference between modern international and feudal society is cardinal and accounts for the possibility of developing a great deal of international law, short of the formal establishment of international sovereignty and international legislative machinery.[3]

[1]Roscoe Pound, *The Ideal Element in Law*. (Calcutta: University of Calcutta, 1958), p 76. See also W. Friedmann, *The Changing Structure of International Law*. (New York: Columbia University Press, 1964), pp. 61, 122; C. W. Jenks, *A New World of Law?* (Harlow: Longmans, 1969), pp. 90-91.

[2]Pound, *op. cit.*, 179.

[3]Friedmann, *op. cit.*, 119.

Thus, whether doctrine recognizes the situation or not, we have a dynamic system of legal change on the international level. No one, for instance, can be blind to the increased role of unilateral action coupled, not with the expectation of the eventual development of a customary rule supporting it—unless one is to employ the "instant custom" fiction—but with the hope of provoking the attainment of broadly-supported multilateral agreements of a "legislative" nature. These claims are often addressed to a particular problem and are supported by subsidiary explanatory documents, speeches to gatherings of decision-makers and lobbying activities. Among these we list the Truman Proclamation of 1945 on the continental shelf and its accompanying fisheries proclamation, the claims of Chile, Ecuador and Peru as embodied in the Santiago Declaration of 1952, and Canada's *Arctic Waters Pollution Prevention Act* of 1970.[4] Whatever one thinks of the increased use of such mechanisms, it is readily apparent that their use tends to promote a clearer and more incisive examination of the problem in question when one, on the other hand, considers the role that claims based on custom have traditionally played in the formation of international law. While all the time the relevant features of man's interaction with and upon his oceanic milieu[5] both caused and provided the basis of acceptability of a particular claim, reference was made not to those features but to particular legal "principle" or doctrine. It is ironic in the present debate regarding the regulation of oceanic uses that the near-total failure of doctrine, notably the amorphous "freedom of the seas" doctrine, to encompass the new and reasonable claims of participants is taken by many commentators to mean not that doctrine prevents healthy growth, but that the claim represents a degrading of doctrine. This view, left unchallenged, would have a form of communication between participants deciding the range of permissibly projected values with rigidity increasingly becoming the dominant feature of the system.

These developing perspectives not only reflect the dynamics of oceanic legal regimes, but also provide a set of criteria by which various claims to jurisdiction are objectively judged by the international community.

McDougal and Burke, in commenting on the scope of the *Anglo-Norwegian Fisheries Case*,[6] seem to see the provision of "evidence" to meet such objective criteria not as what naturally takes place to a greater or lesser extent within the modern authoritative decision-making process, but as an exception device:

> Hence, one way of limiting undesirable extensions of the Anglo-Norwegian Fisheries judgment may be to demand a *concrete demonstration* of the coastal interest alleged to justify the claimed delimitation and to emphasize, as did the court, the need for a realistic assessment of the coastal interest alleged to be at stake (emphasis added).[7]

Unless the term "concrete" is meant to indicate a greater burden of proof than normal, this statement seems an aberration of the authors' usual close attention to the nature and context of communication between authoritative decision-makers. It is clear that as participants in the international decision-making process become ever more sophisticated in their analysis of the coincidence of the supposed basis of claim and reality, it will become increasingly difficult for claims to jurisdiction to fail to reflect, in some measure, a real movement towards a more functional and realistic system of oceanic legal regimes.[8] The formulation of oceanic legal regimes more representative of the diverse cultural and political fabric of the international community brings with it the hope that more informed and representative decision-making will develop in other areas of international law, where, as was once the case with the law of the sea, legal regimes still reflect norms formulated by western Christian nation-States.[9]

[4]Perhaps the most frank explanation of this technique was given by Canada's Prime Minister, P. E. Trudeau, to the Canadian Parliament when he stated, with relation to a reservation to Canada's acceptance of the compulsory jurisdiction of the International Court of Justice in part prompted by passage of the *Arctic Waters Pollution Prevention Act*: "Canada strongly supports the rule of law in international affairs. Canada has made known to other states that it is prepared to participate actively in multilateral efforts to develop agreed rules on the protection of the environment and conservation of the living resources of the sea. Canada is not prepared, however, to engage in litigation with other States concerning vital issues *where the law is either inadequate or non-existent* and thus does not provide a firm basis for judicial decision. We have therefore submitted this new reservation to Canada's acceptance to those areas of the law of the sea which are undeveloped or inadequate. . . . there is an urgent need for *the development of international law establishing that coastal states are entitled*, on the basis of fundamental principle of self defense, to protect their marine environment and its living resources so as to make it possible for Canada again to broaden its acceptance of the court's jurisdiction (emphasis added)." H. C. Deb. (Can.), April 8, 1970, at pp. 5623-14.

[5]Which for these purposes includes those relevant terrestrial events in the power politics of the particular age.

[6]*International Court of Justice Reports* (1951), p. 116.

[7]M. J. McDougal and W. T. Burke, *The Public Order of the Oceans* (New Haven: Yale University Press, 1962), p. 387. We would further quarrel with the immediately preceding statement that, "A realistic appraisal of the factors relevant to the policies pronounced by the court in the Anglo-Norwegian Fisheries judgment should make it clear that a successful demonstration of this intensity of interests cannot often be made."

[8]This sophistication is partly the result of the work of the Internation Law Commission (ILC) preparatory to the 1958 Law of the Sea Conference but more importantly is achieved through contact within such organizations as FAO'S Department of Fisheries, Committee on Fisheries (COFI), and Advisory Committee on Marine Resources Research (ACMRR), the Scientific Committee on Ocean Research (SCOR) of the International Council of Scientific Unions and the Intergovernmental Oceanographic Commission (IOC). As stated by Burke in reference to the work of ACMRR and FAO'S Department of Fisheries, "Provision of timely and pertinent information does not alone assure that action will be taken, but it is, at least, unlikely that any remedial or advance action would be taken at all unless such information can be made available." Burke (1969) *Towards a Better Use of the Ocean* (Stockholm: SIPRI, 1967), p. 77.

[9]See Rosalyn Higgins, *Conflict of Interests* (Chester Springs, Pa.: Dufour Editions, 1965), p. 11-45, for a review of the influence of non-Christian cultures on the development of present-day international law.

But, lest progress towards the goal be haphazard, scholarly analysis is required, not only of the basic goals which are purportedly advanced by the contentions of participants but also of the evidence presented by nations to support those contentions—in short, the establishment of criteria testing a contention's veracity and reliability.

Demands for more dynamic and functional legal regimes are nowhere more widely made nor more widely "refuted" by reference to doctrine than in relation to the management of oceanic living resources. Claims put forward in this area are increasingly being supported by a broad range of data from the ecological to the social-anthropological. These claims are often "refuted" by invocation of the "freedom of the seas" doctrine or the problem incorrectly related to other supposedly conflicting uses by reference to notions of "creeping jurisdiction."[10] To add to the disarray, clashes between proponents of scientific and socio-economic evidences are frequent[11] and both "legislative" conventional law[12] and the practice of multinational commissions[13] recognize both types of evidence as relevant to a lesser or greater extent. It is necessary to examine the information required to support proposals dealing with the management of oceanic living resources, whether made unilaterally or within the context of multilateral negotiations and the means whereby that information can be more properly amassed. Certain aspects of this problem, which in part is one of science policy, arose in the course of legal studies carried on within the context of a developing multi-disciplinary attempt by Canadian scientists, both physical and social, to understand the characteristics and resource potential of that marginal sea known as the Gulf of St. Lawrence. The Gulf Project[14] was not conceived in order to support Canada's claim to jurisdiction over the Gulf.[15] While it may indeed have that effect, its purpose was, and still is, to examine the physical characteristics of the Gulf and its resources in the context of Atlantic Canada's social milieu, always with an eye to more effective management—purposeful science as an aid to what Dubos terms a "willed future."[16]

Certain of the reasons for the inception of the Gulf Project are relevant to this discussion.[17]

1. The physical processes and biological phenomena of the Gulf were seen as being particularly amenable to study. As stated by one participant, "One of the main attractions of scientific study of an area such as the Gulf is that it provides a system more or less clearly circumscribed by a set of *natural* conditions."[18]

2. The Gulf's living resources are tremendously important to the region which has serious social and economic problems. It was recognized that solution of these problems of "regional disparity" could not be achieved without the proper background studies.

3. The inter-relationship between the physical and social sciences in the solution of management problems was recognized.[19]

[10]There has, of course, been a growing recognition that security interests once maintained to be antithetical to exclusive fisheries are separable from fisheries interests.

[11]It seems that commentators sometimes disagree on why they disagree. Christy and Scott, for instance, thought that negotiators were "beguiled by the apparent simplicity of the physical goal"; *The Common Wealth in Ocean Fisheries* (Baltimore: Johns Hopkins Press, 1965), p. 216: while Burke says that "close" observers and participants in the process of decision feel this goal reflects neither parochial bias of scientists toward physical yields as the desirable goal nor a lack of concern over broader social goals. Rather they feel there are "insuperable" barriers to any other goal. *Op. cit.*, pp. 78-9.

[12]E.g., Article 2 of the 1958 Convention on Fishing and Conservation of the Living Resources of the High Seas states, in part: "Conservation programmes should be formulated with a view to securing in the first place a supply of food for human consumption." (U.N. Doc. A/ CONF. 13/ L.54).

[13]See the "Report of the Working Group on Joint Biological and Economic Assessment of Conservations Actions," *ICNAF Annual Proceedings* (1966-67) Vol. 17. pp. 48-84.

[14]A proposed scientific program for the Gulf is to be found in "A Brief to the East Coast Working Group of the Canadian Committee on Oceanography on a Proposal for a Marine Science Study of the Gulf of St. Lawrence," *Gulf of St. Lawrence Newsletter* (January, 1971) No. 5. The Canadian Committee on Oceanography (CCO) is comprised of representatives from universities, industries and governments and advises the federal government on marine science policy. The CCO has approved the proposal in principle (Dickie-personal communication 1971). Two comprehensive workshops were held leading up to this brief and are reported in the *Report of the Gulf of St. Lawrence Workshop* held at Bedford Institute, Dartmouth, N. S., November 28-29, 1968, (R. W. Trites, Bedford Institute, Coordinator) and the *Report of the Second Gulf of St. Lawrence Workshop* held at Bedford Institute, Dartmouth, N. S., November 30-December 3, 1970, (E. M. Hassan, Bedford Institute, Coordinator).

[15]The Gulf has been claimed as an exclusive Canadian Fishing Zone under the Territorial Sea and Fishing Zones Act R.S.C. Chapter T-7 as amended and for the purposes of pollution control under the Canada Shipping Act R.S.C. Chapter S-9 as amended.

[16]Rene Dubos, *Reason Awake* (New York: Columbia University Press, 1970), pp. 228-260.

[17]Although not referring specifically to the Gulf Project, a good examination of the importance of studying the Gulf of St. Lawrence is to be found in the "Review of the Fisheries Research Board of Canada 1969-70," *Information Canada* (1971), pp. 121-123.

[18]Dickie, "The Gulf as a Biological Production System," *Report of the Second Gulf of St. Lawrence Workshop* (1970), pp. 88-110. This feature is closely related to management possibilities. The concepts of the "eco-system" and of the "bioma" were used in support of the so-called CFP claims; see F. V. Gardia-Amador. *The Exploitation and Conservation of the Sea* (Leydon: A. W. Sythoff, 1963), pp. 75-76; but it would appear that in that case the system was very much an open one perhaps accounting for the resistance with which those claims were met. Identification of the "open-system" characteristics of the Gulf will be a major goal.

[19]As stated in the Gulf Project proposal: "It was clear from the meeting at the Bedford Institute, that we need to form special study groups, to develop studies in addition to the key physical, geochemical, and biological program. Special requirements exist in the fields of engineering, socio-economic and administrative and legal mechanisms. Efforts in these areas need to be developed in close association with the scientists, to enhance appreciation of the effects of change and of our national capacity to initiate and manage control measures for large natural systems." *Gulf of St. Lawrence Newsletter* No. 5, (January, 1971) 2-18:5.

4. Claims to jurisdiction even if properly made must be effectively exercised to remain valid, according to participants.[20]

These underlying rationale for the Gulf Project seem of general application to the structure of research purposely planned to support a proposed management regime and can be described in turn as referring to (a) the selection of the proper management unit; (b) the assessment of the resources' social and economic importance; (c) establishment of a proper research methodology, and (d) application of the results to an on-going system of management. An evaluation as to whether a program based on these rationale was likely to lead to the attainment of the basic underlying management goals led quite naturally to the consideration of criteria capable of adequately establishing the veracity and reliability of research supporting claims to jurisdiction generally.

DATA AND CLAIM: A VARIATION IN REQUIREMENTS

For our present purpose we will distinguish two broad classes of claims to jurisdiction over oceanic living resources, each of which requires a different level and type of supporting data. The first is comprised of those claims which, in effect, appropriate the right to fish in a particular area or for a particular species. The second comprises those which accommodate the community's interests in the resource.

The exact nature and purpose of a particular claim is often hard to determine. As stated by Johnston:

> . . . such pretensions of extended authority over the exploitation of coastal resources may be more easily accepted [i.e., by the international community] if directly associated with governmental acceptance of responsibility for the national population-resources problem. The values invoked by claimant coastal states are usually alleged to be based, not on choice, but rather on the necessity of a minimum assurance of unimpeded access to natural sources of health and wealth. Once this type of authority was commonly accepted as rightful, the problem became purely qualitative: how much is enough.[21]

More to the point, it is evident that claimants sometimes profess to have the common interests of the world community in mind when actually promoting their exclusive interests.[22] We seek criteria which would expose these hypocracies at their inception.

We will not deal directly with the need for additional and sometimes different data which naturally arises when new management goals are formulated within both these classes, for instance when financial assistance programs and price stability are stressed instead of product development and increased production.[23] Nor can we dwell on the different tasks presented by the use of socio-economic as opposed to biological criteria. We might note, however, that Johnston saw the use of scientific criteria as creating two problems —that of where the onus of proof properly lies and of what standards of proof are required.[24] We are, of course, concerned mainly with the latter. While the type of claim (i.e., exclusive or inclusive) naturally affects the former to some degree, Johnston did not discuss its effect on the latter and stated merely that:

> At least where the claim is alleged to be partly justified by conservation needs, the validity of the norm in question will have to be determined by the *objective* techniques of the natural sciences and the *semi-objective* techniques of the social sciences (emphasis added).[25]

We would merely note that the techniques of the social sciences are increasingly becoming "objective"[26] and in any event the concept of certainty engendered by the so-called "objective" techniques of the natural sciences is apt to prove illusory when used to support a controversial and developing body of constructs such as fisheries biology.

The Anglo-Norwegian Fisheries Case is a classic example of claims falling within the class first mentioned above. Judge Alvarez in his separate concurring judgment saw that the situation before the court demanded a dynamic solution derivable from "general principles of law." He stated that these general principles did in fact reflect the dynamics of international life; "indeed, if no principles exist covering a given question, principles must be created to conform to those conditions."[27] It is instructive to note the evidentiary basis of Norway's argument which the court accepted, seemingly in defiance of a basic "principle" of international law. As is well known, while

[20] *Ibid.*, 3.

[21] D. M. Johnston, *The International Law of Fisheries* (New Haven: Yale University Press, 1965), p. 248.

[22] *Ibid*, 459. As pointed out by Johnston, this is no more glaringly evident than in the Preamble to the 1951 International Convention for the High Seas Fisheries of the North Pacific Ocean.

[23] The Standing Committee on Research and Statistics of the International Commission for the Northwest Atlantic Fisheries (ICNAF) demonstrated a similar point in its deliberations regarding the introduction of a new technique (annual catch quotas) to achieve for the most part a historically accepted goal (i.e. maximum sustainable yield). Its subcommittee on assessments reported that "It is becoming clear that these models [i.e. simpler population models, especially the constant parameter yield-per-recruit model] do not give an entirely adequate description of the situation and that if more precise assessment of the state of the stocks is required [i.e. for a quota system] more complex models using an increasing range of information will become necessary . . . The more complex models require information from virtually any branch of marine science, and of biology generally, but certain aspects may be picked out as likely to be particularly relevant to the most urgent problems." *ICNAF Annual Proceedings*, Vol. 18 (1967-68), pp. 24-25.

[24] Johnston, *op. cit.*, 461.

[25] *Ibid.*, 460.

[26] Note for example R. Friedheim, "Factor Analysis as a Tool in Studying the Law of the Sea," *The Law of the Sea: Offshore Boundaries and Zones*, ed. L. M. Alexander (Columbus: Ohio State University Press, 1967), pp. 47-70.

[27] *International Court of Justice Reports* (1951), pp. 147-148.

the United Kingdom argument was to a great extent dependent upon an elaborate method of determining the permissible width of the territorial sea based on doctrine, Norway submitted voluminous socio-economic and historical data in support of its contentions. According to one commentator, the case's chief significance lies in the court's acceptance of that evidence.[28] While it is true that it may be difficult to find "objectively fair formulae" in adjudicating future disputes within the context of this test, the fact that the court chose to recognize the realities of the situation as manifested by the evidence presented goes a long way to ensure that in future similar disputes will be treated in a like manner. The extent of the court's break with doctrine is evident in the critical doctrinal position that the evidence should have been excluded not so much because it was inaccurate or biased in favor of Norway but because it was irrelevant.[29] Another commentator demonstrated the gulf even more graphically when he contended that it was open to the court to take the interests of British fishermen and consumers as well as the interests of the local Norwegian population into account only if the court had been asked to decide the dispute *ex aequo et bono*[30]—and this after the decision!

Norway's evidence constituted the information element which was essential to a dynamic and responsive decision-making process and when the court refers to the international aspect of the legitimate establishment of baselines,[31] it was furthering the establishment of such a process by implying that such facts are properly required by the community regarding all claims of this nature. We have seen that this requirement is becoming a general feature of the process of legitimatizing claims to jurisdiction. How is this requirement reflected in claims which purport to treat the needs of the world community endogenously?

A hypothetical coastal state "C" claims a management competence over the living resources of a particular area adjacent to its coasts in the interests of the world community. As the partial basis of its claim, it cites the deterioration of fish stocks due to past patterns of resource use and the consequent decline of its coastal communities. Left at that point, we would expect that the factual "evidence" of its right to do so as communicated to the community would bear a strong resemblance to that submitted by Norway in the *Anglo-Norwegian Fisheries Case*. It is submitted however, that, in an apparent paradox, the data required to support a claim which purports to further inclusive community values must be of a more sophisticated nature than for a claim which appropriates. The paradox is apparent because in disputes such as the United Kingdom-Norway case, there are essentially two contending perspectives as to the proper levels of resource use and allocation—that of continued uncontrolled access to the resource and of national appropriation.

To the fishermen of Aberdeen who were barred from the rich skjaergaard, international law as meted out by the International Court of Justice in the *Anglo-Norwegian Fisheries Case* lacked justice; to those of the Vestfjord it had finally embraced reality. It is impossible to contend that the adverse effects of the closing lines on the United Kingdom's fishing industry could not have been demonstrated to some degree. It may be too much to say that because the United Kingdom adhered strictly to doctrinal grounds that its fishermen's interest were sacrificed because the mobility of its fleets may well have negated such arguments in the court's mind. However, it does seem clear that because the court was not presented with such contending perspectives, both factually supported, it was "easy" for the court to arrive at its decision. Moreover, even with the submission of such evidence the court's task, given the essential logic of its argument, would have been only marginally more difficult and not comparable to the case where a nation purports to further inclusive community interests.

This flows from the fact that it is when we move into the realm of satisfying diverse needs; accommodating various perspectives as to the proper level of exploitation and end-use of a particular species, or more so, of several ecologically-related species; of optimizing several parts of the living resource use—management system—whatever we wish to term it—we are in an area of great difficulty and uncertainty.

These are not merely the uncertainties engendered by scientific methodologies and the present level of knowledge to which Johnston refers.[32] Those difficulties of proof exist independently of the nature of the competence claimed. Rather many of these uncertainties exist because the most basic steps towards the formulation of adequate goals for multinational fisheries management have not been taken:—acceptable techniques and criteria for determining the nature and extent of the resource base of a given oceanic area have not been formulated;[33] not even the broad theoretical outlines of alternative structures for living resource use-management systems have been constructed; operational features of desirable on-going systems even

[28]Johnston, *op. cit.*, p. 248.

[29]R. O. Wilberforce, "Some Aspects of the Anglo-Norwegian Fisheries Case," *Grotius Society Transactions* (1952) Vol. 38, pp. 151-68. When we speak of establishing the veracity and reliability of a contention we will be referring to the need for the most helpful data, or taken from another point, how can it be obtained free of methodological bias. What doctrine required from Norway was not the best data but an absence of it.

[30]D. H. N. Johnson, "The Anglo-Norwegian Fisheries Case." *Int. & Comp. L.Q.* (1952) Vol. 1, pp. 145-180: 177 (note 60).

[31]*International Court of Justice Reports* (1951), p. 132.

[32]Johnston, *op. cit.*, pp. 461-2. See also Burke, *op. cit.*, p. 69.

[33]The extent of an area's resource base does not depend on its physical configuration alone—the latter is determinable to a lesser or greater extent by the physical sciences. A resource base expands or contracts under the influence of economic and technological conditions and with the user's perception of it.

at the elemental level of present arrangements are the subject of diverse subjectively-derived opinion.[34]

The nature of these basic steps towards the protection of inclusive interests and the difficulty of taking them are closely connected with the features of "co-operative" law. This perspective sees legal regimes applicable to claims to jurisdiction and the management schemes subsumed under them as providing a means of doing things by co-operative action in a disciplined and equitable manner rather than as presenting commands to do or not to do them, within the operation of which logic no more excludes preference, policy and choice.[35] Consideration of "preference," "policy" and "choice," however necessary for co-operative action, makes the formulation and demonstration as to the existence of a unified perception of proper management goals and processes a difficult task. Moreover, the community's constant attention to the treatment accorded its inclusive interests, especially as reflected in "feedback" from management decisions will give rise to negotiations concerning the continuing adequacy of past decisions. This is actually as important for the coastal nation as for the international community but will introduce further uncertainty as to the permissible range of management decisions. This uncertainty might be reduced if a hierarchy of goals can be agreed upon between the coastal nation and the community. Within the constraint of agreed-upon broad goals reflective of inducive interests, the coastal nation might have the competence to determine such matters as the proper manner in which catch statistics are to be filed, the conduct or assignment of required scientific research, the classification of fishing gear—e.g., chafing gear and cod-ends—the proper method of measuring mesh sizes and the permissible level of catch for each species. The partial exclusion of such matters from the decision-making process would not only facilitate a demonstration that a particular management scheme is properly constructed by reducing the inclusive criteria to which evidence must be addressed but may also aid its successful operation especially where disputes concerning the major inclusive goals are treated through a formal mechanism. Of course, the prospects of attaining a community-wide agreement as to the placing of various management matters on the hierarchical continuum is greatly dependent upon the level of knowledge available concerning fisheries management generally and not necessarily with reference to any particular claim. In any event, the proper management of oceanic living resources requires a concerted research effort purposely aimed at taking the basic steps toward the creation of "cooperative" legal regimes mentioned above and, as is being demonstrated by the Gulf Project, purposeful science—physical or social—requires the identification of disciplinary capabilities and the establishment of a multidisciplined methodology.

Thus, our hypothetical coastal state "C" will have to satisfy not only a more sophisticated and diverse group of decision-makers than was the case for Norway in 1951, but further requires a whole new level of biological, physical and socio-economic data in order to demonstrate that the proposed management system is operationally workable within the criteria imposed by the international community. These criteria are likely to be co-extensive with much of the diversity and divergency of a multi-national and multi-species fishery.

States claiming a management competence over the living resources of large oceanic areas are increasingly less likely to find a receptive community attitude to proposals improperly conceived or supported by fallacious social and biological arguments: *mutatis mutandis* for claims to other oceanic competences.

[34]For reviews of the important areas of needed research, see Christy and Scott, *op. cit.*, pp 243-52 and NAS-NRC *A Preliminary Report on International Fisheries Management Research* (1971).

[35]Jenks, *op. cit.*, pp. 127-28.

APPENDICES

Appendix A: Lima Declaration

Latin American Meeting on Aspects of the Law of the Sea: Declaration and Resolutions* (Held at Lima, August 4-8, 1970)

DECLARATION OF THE LATIN AMERICAN STATES ON THE LAW OF THE SEA

The Latin American Meeting on Aspects of the Law of the Sea,

Considering:

That there is a geographical, economic and social link between the sea, the land, and man who inhabits it, which confers on coastal populations a legitimate priority right to utilize the natural resources of their maritime environment;

That in consequence of that priority relationship, the right has been recognized of coastal States to establish the extent of their maritime sovereignty or jurisdiction in accordance with reasonable criteria, having regard to their geographical, geological and biological situation and their socio-economic needs and responsibilities;

That the dangers and damage resulting from indiscriminate and abusive practices in the extraction of marine resources, among other reasons, have led an important group of coastal States to extend the limits of their sovereignty or jurisdiction over the sea, with due respect for freedom of navigation and flight in transit for ships and aircraft, without distinction as to flag;

That certain forms of utilization of the marine environment have likewise been giving rise to grave dangers of contamination of the waters and disturbance of the ecological balance, to combat which it is necessary that the coastal States should take steps to protect the health and interests of their populations;

That the development of scientific research in the marine environment requires the widest possible cooperation among States, so that all may contribute and share in its benefits, without prejudice to the authorization, supervision and participation of the coastal States when such research is carried out within the limits of its sovereignty or jurisdiction;

That in declarations, resolutions and treaties, especially inter-American instruments, and also in unilateral declarations and in agreements signed between Latin American States legal principles are embodied which justify the aforementioned rights;

That the sovereign right of States over their natural resources has been recognized and reaffirmed in numerous resolutions of the General Assembly and other United Nations bodies;

That in the exercise of these rights the respective rights of other neighbouring coastal States on the same sea must be mutually respected; and

That it is desirable to assemble and reaffirm the foregoing concepts in a joint declaration which will take into account the plurality of existing legal regimes on maritime sovereignty or jurisdiction in Latin American countries.

DECLARES as common principles of the Law of the Sea:

1. The inherent right of the coastal State to explore, conserve and exploit the natural resources of the sea adjacent to its coasts and the soil and subsoil thereof, likewise of the Continental Shelf and its subsoil, in order to promote the maximum development of its economy and to raise the level of living of its people;

2. The right of the coastal State to establish the limits of its maritime sovereignty or jurisdiction in accordance with reasonable criteria, having regard to its geographical, geological and biological characteristics, and the need to make rational use of its resources;

3. The right of the coastal State to take regulatory measures for the aforementioned purposes, applicable in the areas of its maritime sovereignty or jurisdiction, without prejudice to freedom of navigation and flight

*Reproduced from U. N. General Assembly Document A/AC.138/28 of August 14, 1970. The Resolutions on the Seabed and Ocean Floor passed by the Twenty-fifth Session of the U. N. General Assembly appear at I.L.M. pages 145 and 220. The Statement on the Seabed passed by the Third Conference of the Non-Aligned Countries, held at Lusaka, September 8-10, 1970, appears at I.L.M. page 219.

in transit of ships and aircraft, without distinction as to flag;

4. The right of the coastal State to prevent contamination of the waters and other dangerous and harmful effects that may result from the use, exploration or exploitation of the area adjacent to its coasts;

5. The right of the coastal State to authorize, supervise and participate in all scientific research activities which may be carried out in the maritime zones subject to its sovereignty or jurisdiction, and to be informed of the findings and the results of such research.

This declaration shall be known as the "Declaration of the Latin American States on the Law of the Sea".

RESOLUTION 1

ON THE SEA-BED AND OCEAN FLOOR BEYOND THE LIMITS OF NATIONAL JURISDICTION

The Latin American Meeting on Aspects of the Law of the Sea

Considering:

That the Latin American States have declared on various occasions that the sea-bed and ocean floor and the subsoil thereof beyond the limits of national jurisdiction, including the resources of that zone, should be the common heritage of mankind;

That, in order to ensure that the exploration, conservation and exploitation of the sea-bed and ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction, shall be carried out for the benefit of all mankind, irrespective of the geographical location of States and taking into consideration the special interests of the developing States, whether coastal or land-locked, it is essential that these activities be carried out under an international regime which shall include suitable machinery for ensuring joint participation in the administration of the zone and in the benefits derived therefrom;

That the United Nations Committee on the Peaceful Uses of the Sea-bed and the Ocean Floor beyond the Limits of National Jurisdiction is at present engaged on the task of drawing-up a declaration of principles which should establish the broad lines of the future regime;

That a group of fifteen States, with the participation of Latin American countries, has submitted to the said Committee, in document A/AC.138/SC.1/L.2, dated 23 March 1970, a draft General Assembly resolution containing general principles relating to the sea-bed and ocean floor and the subsoil thereof beyond the limits of national jurisdiction;

That, to succeed in its task, the said Committee must observe in its work a suitable order of priority corresponding to rational criteria for the formulation of rules of international law; and

That the introduction of proposals for the establishment of an interim regime for the international zone might not only delay the completion of the first essential stage, which is to draw up a declaration of principle and the broad lines of a permanent regime, but might also hamper the said Committee in the proper discharge of its mandate;

Decides to recommend to Governments participating in this Meeting that they take account of the following objectives;

(1) that the United Nations Committee on the Sea-Bed and Ocean Floor should continue to give priority to the task of preparing a declaration of principles which would establish the broad lines of the future permanent regime to be established for that zone;

(2) That the said declaration of principles should serve merely as the basis for the Committee's subsequent work, under the mandate conferred on it by General Assembly resolution 2467 (XXIII) and 2574 (XXIV);

(3) That it would be premature to establish an interim-regime for the international zone and to establish the extra-jurisdictional limits of the sea-bed and ocean floor until the above-mentioned stages have been completed;

(4) That in the light of the reports prepared by the Secretary-General of the United Nations on the various possible types of international machinery for the exploration, conservation and exploitation of the sea-bed and ocean floor and the sub-soil thereof beyond the limits of national jurisdiction, the Latin American Governments shall agree on a common position with regard to determination of the most suitable arrangement for organizing the said machinery and on the question of the desirability of including in it regional or subregional systems:

(5) That, without prejudice to any suggestions which they may see fit to make concerning the declaration of principles mentioned under (1), they should at the appropriate time support the broad lines contained in document A/AC.138/SC.1/L.2 of 23 March 1970.

RESOLUTION 2

ON THE CONVENING OF A FURTHER INTERNATIONAL CONFERENCE ON THE LAW OF THE SEA

The Latin American Meeting on Aspects of the Law of the Sea:

Recalling resolutions 798 (VIII) and 1105 (XI) of the United Nations General Assembly;

Having regard to the fact that the problems relating to the high seas, territorial waters, contiguous zones, the continental shelf, the superjacent waters, and the sea-bed and ocean floor beyond the limits of national jurisdiction are closely linked together, so that their consideration should take account of the necessary correlation between the legal regime and the physical environment to which it applies;

Considering that, at the request of the General Assembly in its resolution 2574 A (XXIV), the Secretary-General has consulted Member States on the

desirability of convening at an early date a conference on the law of the sea to review the regimes of the high seas, the continental shelf, the territorial sea and contiguous zone, fishing and conservation of the living resources of the high seas, particularly in order to arrive at a clear, precise and internationally accepted definition of the area of the sea-bed and ocean floor which lies beyond the limits of national jurisdiction, in the light of the international regime to be established for that area;

Considering also that the convening of a conference or conferences with a limited agenda for the purpose of dealing separately with particular aspects of the law of the sea is undesirable, because it would compromise the success of a general conference; and that it conflicts with the principle, recognized by the International Law Commission and endorsed by the said General Assembly resolutions, concerning the treatment of maritime questions as a whole;

Bearing in mind, furthermore, that the Secretary-General is to report on the results of his consultations to the General Assembly at its twenty-fifth session;

Recommends to the Governments of the States participating in the Meeting:

(a) That, if they have not already done so, they reply to the Secretary-General's request for their views by expressing themselves in favour of convening an international conference on the law of the sea, provided the conference considers the various topics referred to in resolution 2574 A (XXIV), and once the permanent international regime and the administrative machinery applicable to the extra-jurisdictional sea-bed have been defined, and the studies, reports and inquiries made for that purpose have indicated that there are reasonable hopes for the success of the conference;

(b) That they instruct their delegations to the United Nations to support the above-mentioned position when this question is discussed at the twenty-fifth session of the General Assembly;

(c) That they also instruct the said delegations to oppose any proposal to convene a conference or conferences whose agenda would be limited to particular aspects of the law of the sea.

RESOLUTION 3

ON THE PROBLEM OF THE CONTAMINATION OF THE MARINE ENVIRONMENT

The Latin American Meeting on Aspects of the Law of the Sea:

Recognizing that the exploration, exploitation and use of the oceans and the soil and subsoil thereof and other activities carried out in non-marine environments have recently been creating a serious danger of contamination of waters and disturbance of the ecological balance of the marine environment;

Considering, consequently, the urgent need to take appropriate measures to prevent, control, reduce or eliminate contamination and any other dangerous and harmful effects that may result from the said activities;

Considering further that such measures must include not only rules to govern the exploration, exploitation and utilization of the oceans and the soil and subsoil thereof, and other activities which may affect the marine environment, but also rules relating to the system of liability for the resulting damages;

Recalling the progress made in these matters by various governmental bodies and by the Food and Agriculture Organization of the United Nations, the United Nations Educational, Scientific and Cultural Organization and its Intergovernmental Oceanographic Commission, the Inter-Governmental Maritime Consultative Organization and the International Atomic Energy Agency,

Recalling also resolution 2467 B (XXIII) of the United Nations General Assembly of the United Nations;

Noting with concern that, notwithstanding the repeated protests of many States, nuclear weapons tests continue to be carried out in the marine environment, destroying important living resources, contaminating the waters by their radioactive effects and disturbing the existing biological, chemical and physical processes and balances;

Considering that, for all these reasons, and without prejudice to any international agreements that have been concluded or which may be concluded on these matters, it is necessary to reaffirm the right of coastal States to take any steps and measures that they may deem necessary for the proper protection of the interests of their peoples against the dangers of contamination and other harmful effects that may result from the use, exploration and exploitation of the seas contiguous to their territories, or from other activities carried out in non-marine environments that may affect the said interests;

Recommends to the Governments participating in this Meeting;

(a) That they reaffirm their decision to take such steps and measures as they may deem appropriate to prevent, control and reduce or eliminate contamination and other dangerous and harmful effects resulting from the exploration, exploitation and use of the sea adjacent to their coasts and of the soil and subsoil thereof, and from any other activities carried out in non-marine environments that may affect the interests of their people, in exercise of the right of coastal States to protect its maritime heritage;

(b) That they reaffirm their opposition to the continuance of those nuclear weapons tests, mainly in the marine environment, which produce effects harmful to the resources of the sea, contamination of waters and disturbance of their existing bio-

logical, chemical and physical processes and balances;

(c) That they exchange views and information on appropriate measures for the above-mentioned purposes and on draft international agreements relating to these matters;

(d) That they agree on common positions so that when these matters are discussed in international organizations and at international conferences, their respective representatives may take due account of the rights and interests of coastal States.

RESOLUTION 4

ON THE PROHIBITION OF THE EMPLACEMENT OF NUCLEAR AND OTHER WEAPONS ON THE SEABED AND THE OCEAN FLOOR AND IN THE SUBSOIL THEREOF

The Latin American Meeting on Aspects of the Law of the Sea:

Taking note of the Draft Treaty on the Prohibition of the Emplacement of Nuclear Weapons and other Weapons of Mass Destruction on the Seabed and the Ocean Floor and in the Subsoil thereof, submitted to the Conference of the Committee on Disarmament on 23 April 1970 by the Union of Soviet Socialist Republics and the United States of America (CCD/-269/Rev.2).

Considering that at present, general and complete disarmament is an objective of fundamental importance for the international community;

Reaffirming its belief that the sea-bed and ocean floor and the subsoil thereof should be used for exclusively peaceful purposes; and

Considering that the draft should not prejudice the maritime sovereignty and jurisdiction of the Latin American States, or affect the regional agreements on disarmament to which they are parties;

Takes note with interest of the work done so far in this connection by the Latin American countries represented in the Conference of the Committee on Disarmament in an attempt to ensure that due account is taken of Latin American rights and interests in the instrument to be elaborated; and

Recommends to the Governments of States participating in this Meeting that when the General Assembly of the United Nations considers the Draft Treaty on the Prohibition of the Emplacement of Nuclear Weapons and other Weapons of Mass Destruction on the Seabed and the Ocean Floor and in the Subsoil thereof, they endeavour to harmonize their efforts with a view to preventing any infringement of their maritime sovereignty and jurisdiction or of the existing regional regime among the Latin American countries on the subject of disarmament.

RESOLUTION 5

ON THE LEGAL ASPECTS OF SCIENTIFIC OCEANOGRAPHIC RESEARCH

The Latin American Meeting on Aspects of the Law of the Sea:

Recalling the resolutions adopted by the General Assembly of the United Nations at its twenty-fourth session on the legal aspects of scientific oceanographic research;

Considering the desirability of a careful study of resolution VI-13 of the Intergovernmental Oceanographic Commission on the promotion of basic scientific research;

Bearing in mind, in particular, the action at present being taken by the said Intergovernmental Oceanographic Commission with a view to the preparation of a draft Convention on the legal status of systems for the acquisition of oceanographic data (SADO);

Considering the importance from the standpoint of basic legal issues such as the sovereignty and jurisdiction of the coastal States, of any criteria that are adopted on this matter.

DECIDES:

(1) To recommend that the Governments participating in this Meeting undertake a continuing exchange of views with a view to co-ordinating and harmonizing their positions in the various forums dealing with the legal problems of scientific oceanographic research;

(2) To recommend also that these Governments adopt a common stand on the question of the desirability of those matters being considered jointly in the United Nations, so that the developing States, and particularly the Latin American countries, may participate actively in the formulation of any rules it is desired to adopt.

(3) To reaffirm:

(a) That any scientific research carried out within the maritime jurisdiction of a State shall be subject to prior authorization by that State and shall comply with the conditions laid down by that authority;

(b) That the coastal State has the right to participate in any research that may be carried out within its jurisdiction and to benefit from the results of that research;

(c) That all the samples obtained in research of this kind shall be the property of the State in whose jurisdiction the research is carried out and that they may be appropriated by those conducting the research only with the express consent of that State;

(d) That any scientific research which is authorized as such shall continue to be of a strictly and exclusively scientific character.

Appendix B: Conference Program

Law of the Sea: A New Geneva Conference

June 21-24, 1971

THE CONSEQUENCES OF NONAGREEMENT

Monday morning, June 21

Chairman: Gerard E. Sullivan, Associate Director, Law of the Sea Institute

"The 1973 Conference on the Law of the Sea: The Consequences of Failure to Agree"
Edward D. Brown, Woodrow Wilson International Center for Scholars and Professor of Law, University College, London

"Consequences for Territorial Sea Claims of Failure to Agree at the Next LOS Conference"
William T. Burke, Professor of Law, University of Washington School of Law

"Options Open to the United States in the Event of Nonagreement"
John P. Craven, Dean of Marine Programs, University of Hawaii

Remarks
Hon. Claiborne Pell, Senator from Rhode Island

Monday afternoon

Chairman: Francis T. Christy, Resources for the Future, Washington, D. C.

Remarks
Bernard Oxman, Office of the Legal Advisor, United States Department of State

Group Discussion: "Review of the Consequences of Nonagreement"
Jens Evenson, Director General of Legal Department Royal Ministry of Foreign Affairs, Oslo, Norway
Sir Laurence McIntyre, Ambassador of Australia to the United Nations
Lazar Mojsov, Ambassador of Yugoslavia to the United Nations
Anton Prohaska, Mission of Austria to the United Nations
Radha Ramphul, Ambassador of Mauritius to the United Nations
P. V. J. Solomon, Ambassador of Trinidad and Tobago to the United Nations

CONTENTS OF THE NEGOTIATIONS

Tuesday morning, June 22

Chairman: Thomas A. Clingan, Jr., School of Law, University of Miami

"The Military Role in the Oceans and Its Relation to the Law of the Sea"
John A. Knauss, Dean, Graduate School of Oceanography and Provost for Marine Affairs, University of Rhode Island

Panel: "Review and Discussion of Military Interests to be Negotiated"
Attila Atam, Special Legal Adviser, Ministry of Foreign Affairs, Ankara, Turkey
Sven Hirdman, Stockholm International Peace Research Institute, Stockholm, Sweden
Leigh Ratiner, Chairman, Defense Advisory Group on Law of the Sea, Office of the United States Secretary of Defense
J. J. G. Syatauw, Institute of Social Studies, The Hague, The Netherlands

Tuesday afternoon

Chairman: Lewis M. Alexander, Director, Law of the Sea Institute

"Fisheries Interests to be Negotiated"
Hiroshi Kasahara, Associate Dean, University of Washington College of Fisheries

Remarks
F. C. Garcia-Amador, Director, Department of Legal Affairs, Organization of American States

Remarks
Branko Sambrailo, Scientific Adviser, Yugoslav Academy of Sciences and Arts

"States' Interests in Offshore Oil"
Morris Adelman, Professor of Economics, Massachusetts Institute of Technology

"Hard Minerals Interests to be Negotiated"
Herbert D. Drechsler, Henry Krumb School of Mines, Columbia University

Wednesday morning, June 23

Chairman: Howard Pollack, Deputy Administrator, National Oceanic and Atmospheric Administration

Panel: "Intangible and Non-ocean Elements of the Negotiation Process"
Joseph S. Nye, Center for International Affairs, Harvard University
Edwin Haefele, Resources for the Future, Inc., Washington, D. C.
Edward Miles, Graduate School of International Studies, University of Denver

"Pollution—Scientific Research"
Warren Wooster, Scripps Institution of Oceanography

Remarks
Takeo Iguchi, First Secretary, Mission of Japan to the United Nations

"Shipping and Other Commercial Interests"
William John Coffey, American Institute of Merchant Shipping, Washington, D. C.

Wednesday afternoon

Chairman: Giulio Pontecorvo, Professor of Economics, Columbia University

"Research Needs for the Next LOS General Conference"
Francis T. Christy and William T. Burke

"Machinery and Strategies at a Third Law of the Sea Conference"
John Lawrence Hargrove, American Society of International Law

Panel: "Machinery and Strategies for Reaching Agreement"
Dayton L. Alverson, United States Department of Commerce, National Oceanic and Atmospheric Administration—National Marine Fisheries Service
Francis Auburn, University of Auckland Faculty of Law, Auckland, New Zealand
Burdick H. Brittin, Deputy Special Assistant for Fisheries and Wildlife, United States Department of State
L. F. E. Goldie, Stockton Chair of International Law, Naval War College, Newport, Rhode Island

THE PROSPECTS FOR AGREEMENT

Thursday morning, June 24

Chairman: Paul M. Fye, President, Woods Hole Oceanographic Institution

Panel: "The Prospects for Agreement"

Earle E. Seaton, Minister Counselor, Mission of United Republic of Tanzania to the United Nations

Riyadh al-Qaysi, Counselor, Mission of Iraq to the United Nations

Louis B. Sohn, Counselor on International Law, U. S. Department of State and Bemis Professor of International Law, Harvard Law School

Commentary

Myres S. McDougal, Sterling Professor of Law, Yale University

Thursday afternoon

Chairmen: William T. Burke and Francis T. Christy

Panel: "Review of the Prospects for Agreement"

Andres Aguilar, Ambassador of Venezuela to the United Nations

D. H. Bavand, Mission of Iran to the United Nations

Thomas S. Busha, Deputy Head, Legal Division, Intergovernmental Maritime Consultative Organization, London

Alvaro deSoto, Second Secretary, Mission of Peru to the United Nations

C. V. Ranganathan, First Secretary, Mission of India to the United Nations

Thursday evening

Banquet Address

Ambassador Reynaldo Galindo Pohl, Mission of El Salvador to the United Nations

Appendix C: Conference Participants

ABOAGYE-DA COSTA, A.A., Ministry of Labour and Co-Operative, Accra, Ghana

ADELMAN, MORRIS, Professor of Economics, Massachusetts Institute of Technology, Cambridge, Massachusetts

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AJAYI, J. K., Nigeria High Commission, Kampala, Uganda

ALCIVAR, GONZALO, Ambassador of Ecuador to the United Nations in Geneva, Switzerland

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ALEXIOU, Arthur G., National Sea Grant Program, National Oceanic and Atmospheric Administration, Rockville, Maryland

AL-QAYSI, RIYADH, Mission of Iraq to the United Nations, New York, New York

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ATAM, ATTILA, Ministry of Foreign Affairs, Ankara, Turkey

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BARRETT, JOHN, Assistant to Counsel, Office of the Oceanographer of the Navy, Alexandria, Virginia

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BEESLEY, J. A., Legal Advisor, Department of External Affairs, Ottawa, Canada

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BROODING, MILTON E., International North Pacific Fisheries Commission, San Francisco, California

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EVENSEN, JENS, Director General of the Legal Department, Royal Ministry of Foreign Affairs, Oslo Norway

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HODGSON, ROBERT D., The Geographer, Department of State, Washington, D. C.

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