The Developing Order of the Oceans

Edited by
Robert B. Krueger
Stefan A. Riesenfeld

The Developing Order of the Oceans

The Developing Order of the Oceans

Proceedings

Law of the Sea Institute
Eighteenth Annual Conference

Co-sponsored by the
University of San Francisco

October 24–27, 1984
San Francisco

Edited by
Robert B. Krueger
Stefan A. Riesenfeld

Published by
The Law of the Sea Institute
William S. Richardson School of Law
University of Hawaii • Honolulu

The Law of the Sea Institute is housed and sponsored by the William S. Richardson School of Law, University of Hawaii, and is a project sponsored in part by the University of Hawaii Sea Grant College Program under Institutional Grant No. NA-81AA-D-00070 from NOAA, Office of Sea Grant, United States Department of Commerce.

Sea Grant Cooperative Report
UNIHI-SEAGRANT-CR-85-03

International Standard Book Number: 0-911189-13-0

Library of Congress Cataloging-in-Publication Data:

Law of the Sea Institute. Conference (18th : 1984 : San Francisco, Calif.)
The developing order of the oceans.

(Sea grant cooperative report ; UNIHI-SEAGRANT-CR-85-03)
Includes bibliographies.
1. Maritime law--Congresses. 2. Marine resources conservation--Law and legislation--Congresses. 3. Ocean bottom (Maritime law)--Congresses. 4. Economic zones (Maritime law)--Congresses. I. Krueger, Robert B. II. Riesenfeld, Stefan Albrecht, 1908- . III. University of San Francisco. IV. Title. V. Series.
JX4408.L373 1986 341.4'5 85-23781

ISBN 0-911189-13-0

Cite as 18 L. Sea Inst. Proc. [page numbers] (1985)

ACKNOWLEDGEMENTS

Major funding for this conference was provided by

CHEVRON USA (STANDARD OIL COMPANY OF CALIFORNIA)

Generous support has also been provided by:

ASIA FOUNDATION

JOHN BRISCOE

EXXON CORPORATION

FORD FOUNDATION

FOSS LAUNCH AND TUG COMPANY

ANDREW W. MELLON FOUNDATION

MOBIL CORPORATION

PETRO-CANADA

PORT OF SAN FRANCISCO

ELDON REILEY

SHELL OIL COMPANY

STANDARD OIL COMPANY (SOHIO)

UNIVERSITY OF HAWAII

UNIVERSITY OF HAWAII SEA GRANT COLLEGE PROGRAM
in association with
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPT. OF COMMERCE

UNIVERSITY OF SAN FRANCISCO

UNIVERSITY OF SAN FRANCISCO SCHOOL OF LAW

WASHBURN AND KEMP

WINZLER AND KELLY

The Law of the Sea Institute wishes to express its appreciation for the instrumental aid of

Mr. John Briscoe, Esquire

whose original suggestion it was to hold this meeting of the Institute in San Francisco. The meeting could never have been held without his help and the help of other members of the law firm of Washburn and Kemp:

Ms. Mary Howell
Mr. Edgar Washburn, Esquire
Mr. Edward Washburn, Esquire

all of whom gave generously of their energy and enthusiasm to insure the success of the conference.

The Institute also wishes to express its appreciation to the administration and faculty of the University of San Francisco School of Law, especially

Father John Lo Schiavo, S. J.
Dean David Ratner
Assistant Dean Patsy Oppenheim
Professor Eldon Reiley
Professor Jack Garvey
Dr. Alan Ziajka
Mr. Howard Rubenstein

CONTENTS

OPENING CEREMONIES

WELCOMING ADDRESS

John Craven
Director
Law of the Sea Institute

Ostensibly, I am here as preamble to the opening ceremony, to introduce the gentlemen who will open the ceremony. In fact I am here because tradition now demands that every conference have as its preamble a piece of relevant poetry written by a poet from the city or locale where the conference takes place which relates to the ocean, the keynote and theme. Those of you who have been to our conferences know that an attempt is made to deliver the poem in the language of the country. Last year, I spoke in Norwegian. Jens Evensen did not understand what I said nor did the other Norwegians but the non-Norwegians thought I spoke in Norwegian.

So this morning I have a piece of poetry which I will deliver in San Franciscan. It is a poem written by Bret Harte, who is probably the first major poet of San Francisco, and his poem is, of course, entitled "San Francisco from the Sea." The poem recalls for me my own experience of San Francisco. I saw it for the first time in World War II returning from the Pacific and seeing the Golden Gate as the first view of my native land. Indeed that may be the most appropriate way to see San Francisco.

I paraphrase this poem to bring it up to date, without modifying its basic theme.

Serene, indifferent to fate,
Thou sittest at the western gate.
Upon my height so lately won
Still slant the banners of the sun.
Thou seest the white seas strike their tents,
Oh, water of two continents,
And scornful of the peace that flies
The angry winds and sullen skies
Thou drawest all things, small or great,
To thee beside the western gate.
Some say thy cunning and thy greed,
Thy hard high lust and willful deed
And all thy glory loves to tell
Of specious gifts material.
Drop down, oh fleecy fog,
And hide her skeptic sneer and all her pride.
Wrap her, oh fog, in gown and hood
Of her Franciscan (Jesuit) brotherhood.

Hide me her faults, her sin and blame
With thy gray mantle, cloak her shame.
So shall she, cowled, sit and pray
Til' morning bears her mist away.

Then rise, oh fleecy fog,
And raise the glory of her coming days.
Be as the cloud that flecks the seas
Above her smoky argosies
When forms familiar shall give place
To stronger speech and newer face,
When all her throes and anxious fears
Lie hushed in the repose of years,
When art shall rise and culture lift
The sensual joys and meaner thrift
And, all fulfilled, the visions we
Who visit here shall this day see.

Now, let me introduce to you the first vision of the day, our chairman, Robert Krueger.

WELCOMING ADDRESS

Robert B. Krueger
Finley, Kumble, Wagner, Heine, Underberg, Manley & Casey

Thank you, John, for your usual interesting beginning. With Stefan Riesenfeld of the University of California, my co-chairman for this program, I welcome you to California. This is our first meeting in California of the Law of the Sea Conference, this being our eighteenth. It is fitting that it be held here in the St. Francis Hotel which was the headquarters for the organizational meetings for the UN itself. The UN Charter was drafted now almost forty years ago in 1945. It is interesting that while we are meeting here today, the General Assembly is meeting on the other side of this continent.

This week we will be addressing the essential issues that are involved in the developing order of the oceans which ineluctably evoke and will predictably sustain the precepts of the UN itself. It is also fitting that it be sponsored by the Law of the Sea Institute of the University of Hawaii and the University of San Francisco. The Law of the Sea Institute in Hawaii is in the hub of the Pacific Basin and it has stimulated and sustained the interests of the world community in the oceans over the last twenty years. The University of San Francisco, one of California's most senior institutions, has through its educational and social experiences, roots extending to the very beginning of California's existence and its special relationship to the Pacific Basin.

We have with us today, representing the Governor of the State of California. William T. Bagley, a friend, former partner. and the Governor's representative to the Public Utilities Commission. He was appointed by President Ford as the first chairman of the Commodity Futures Trading Commission.

WELCOMING ADDRESS

William T. Bagley
Public Utilities Commission
State of California

Thank you, Bud. My affinity, my friends, with the law of the sea is fleeting. Myron Nordquist and I do a little business now and then together, and Myron teaches me a little bit about the law of the sea. I am here to welcome you, distinguished diplomats, academicians -- that includes everyone here. Reverend Father, I wish you a very good day and in your tongue and mine, buona matina. I do not understand why people from San Francisco, particularly, can say "Ghiradelli" but they can't say "Lo Schiavo." Now, that has some relevance here because, you know, California with its thousand miles of coastline was something of the genesis of the law of the sea three or four hundred years ago; after all, we did have Sir Francis Drake and Portola and Cabrillo and several other venturers out there exercising their rights of the law of the sea.

Some of us came to California some few years ago. Capitano Luigi Baglietto from Genoa, my grandfather, captained a sailing ship 143 days around the Horn in the 1880s. Baglietto became Bagley because, you see, people here are culturally deprived, they can't pronounce the Italian language.

I am here this morning to welcome you on behalf of our governor, George Deukmejian, and the Secretary of Business and Transportation, Kirk West. This is a relatively new administration in California, but those of you -- and that includes all of you -- who read and observe know that this is a no-nonsense administration; it's a business-oriented administration. It doesn't mean you can't be fair to all the rest of the spectrum, but it does mean that this administration is interested in economic progress, jobs, and therefore a better future for California. And, if California has a better future. I will be presumptuous enough to say that the world also will enjoy a better future. We are not just simply provincial with our thousand miles of coastline and thousands of miles of economic interest; we like to look beyond what people think of as the west and say we are really the east. We are the eastern perimeter of this vast Pacific rim, and we are a major economic, financial resource for that Pacific rim. Those of you who are from that arena or have an affinity for that arena know that; you come to California, you come to San Francisco, you come to Los Angeles, you go to Hong Kong and Singapore, too. You come to California for economic resources, for financing, and we in this administration will do all in our power during our tenure to encourage development, to encourage the use, the good use, and development of resources. We welcome you to our fine city on this very fine day, and thank you, Bud Krueger, for inviting me. Happy conference to all of you. Thank you.

ROBERT B. KRUEGER: Thank you, Bill. Here representing the University which he heads is Dr. John Lo Schiavo.

WELCOMING ADDRESS

Father John Lo Schiavo. S. J.
President
University of San Francisco

Thank you very much, Bud. I am not a poet, I am not a Franciscan. What I am is San Franciscan, and I guess that it's fitting that on behalf of the city of San Francisco as well as the University of San Francisco I welcome you here today. The city of San Francisco. as has been said, is a very international city. It's a beautiful city; we always have beautiful weather, unless you're here in July and August. We think it is most fitting that you bring your conference here to the city of San Francisco. We have always attracted people from all over the world; we have always been a city of immigrants, really, and so our interests and our horizons have always been very broad, always been very worldwide. As has also been said, the United Nations Charter was signed here. And the University of San Francisco reflects the city; we too have students from all over the world. Usually, about eighty nations are represented in our campus, and that's the way it's always been. We are an institution that goes back 130 years now, the second oldest in the state of California. On behalf of the University of San Francisco and the city of San Francisco I welcome you here today, and I am sure that you will have a most fruitful and worthwhile conference. Let us hope that we can contribute in our way to peace and harmony throughout the world. Thank you very much.

ROBERT B. KRUEGER: Thank you, Father. The last of our introductory speakers is well-known to most of you: Tom Clingan, who was for many years one of the senior representatives of the United States to the United Nations Law of the Sea Conference. He is now the Presiding Officer of the Law of the the Sea Institute.

WELCOMING ADDRESS

Thomas A. Clingan, Jr.
Presiding Officer
Law of the Sea Institute

Thank you, Bud. Mr. Bagletto. Father Lo Schiavo, ladies and gentlemen, greetings to you all, old friends -- I see many of them in the audience here today -- and new as well. As the presiding officer of the Executive Board of the Law of the Sea Institute, on behalf of that Board, it is my honor and also my distinct pleasure to welcome you to the eighteenth annual meeting of the Institute, co-sponsored this year by the University of San Francisco. As many of you are aware, the Law of the Sea Institute was established in 1965 as a neutral, objective forum open to all disciplines concerned with the oceans and their resources. In the intervening years, it has sponsored meetings in many, many parts of the world. Last year, in Jens Evensen's home country, in Oslo, we were grandly treated. At these meetings, academicians. statesmen, government officials all have the opportunity to gather together to discuss virtually all of the important issues surrounding the uses of the oceans. It has been our custom to move the Conference from place to place in order to enrich its programs through the presentations of the many and varying perspectives of different parts of the globe, and I think that that has been one of the strengths and successes of the Institute's history.

As Bud Krueger pointed out, this is the first meeting to be held in the city of San Francisco, and it is appropriate that we should congregate here. This city, a community of vast and rich cultural diversity, is itself a child of the sea. It is surrounded on three sides by water: the Pacific Ocean, the famous Golden Gate, and San Francisco Bay. In fact, it's accessible by land only from the south. It boasts one of the world's best harbors, some fifty miles long and up to twelve miles wide. I think it is an interesting historical fact that, although pioneers and explorers cruised along the California coast as early as the mid-sixteenth century, all failed to see the narrow cleft in the hills that marked the entrance to San Francisco Bay. More than two hundred years passed -- that is, until 1775 -- before the supply ship San Carlos, which was believed to be the first vessel to enter the Bay, sailed through the Golden Gate. Nonetheless, for over a century, San Francisco was the point through which passed a major share of the traffic flowing between California and the rest of the world. Indeed, maritime commerce has been a prime factor in this great city's economy. It is for reasons such as this that we are extremely pleased to hold this year's meeting in such a great maritime setting. In addition, I think it is fitting that the Institute is helping this year to celebrate the Year of the Oceans in the United States.

As Bud pointed out, this year the program addresses the developing order of the oceans. It encompasses the events which have recently occurred outside the structure of the United Nations as well as those inside. It focuses on the consequences of these developments for both new and traditional uses of the sea. It is our fond hope that you will find the papers and panel discussions both interesting and challenging and that you will also find time to enjoy the many amenities of the fine city of San Francisco.

I encourage you all to participate actively in the discussions, and encourage you to become a permanent part of the family we proudly call the Law of the Sea Institute. I thank you for your support and your interest; I wish you all an enjoyable conference, and I now declare the Eighteenth Annual Conference of the Law of the Sea Institute to be open.

PART I

THE EFFECT OF THE LAW OF THE SEA CONFERENCE UPON THE PROCESS OF THE FORMULATION OF INTERNATIONAL LAW

INTRODUCTORY REMARKS

Robert B. Krueger
Finley, Kumble, Wagner, Heine, Underberg, Manley & Casey
Los Angeles

The title of our first panel, "The Effect of the Law of the Sea Conference Upon the Formation of International Law," is quite descriptive. The recently completed Conference took, in essence, fifteen years to complete, from 1967, when Arvid Pardo introduced his resolution from Malta in the UN General Assembly, to 1982, when the Conference itself was concluded. During the course of that Conference, a unique process took place that our speakers will touch on in greater detail. Essentially, because of the depth and seriousness of the negotiations -- the fact that there was a base-line of information that was developed on the various technologies, on the various sciences, on the various issues involved -- because this base-line of information continuously developed, it had an impact on national policies, regional policies, and there was a watershed outfall during the entire period of the Conference process. Then, too, it evolved into a different forum. It was the largest conference, longest, most consistently represented conference, and the process, the quasi-legislative process that developed, was unique. From this, there has been a general recognition of the value of the Conference in contributing to international law either through the Convention itself or through the individual action of nations. But there has also been the basic issue raised: did the Conference, in and of itself, change the processes for the formation of international law? Do we have something new here? Is there a quasi-legislative effect that occurs from a conference of this kind?

We have a gifted set of panelists. Our first is Francisco Orrego, who was on his country's, Chile's, delegation to the UN Law of the Sea Conference, and is currently the Chilean Ambassador to the United Kingdom.

Our second paper will be given by Jens Evensen, who is known by many of you. He was the Head of Delegation for Norway to the Law of the Sea Conference and headed the very important Evensen Committee, which was a focal point for negotiations for a substantial period in the 1970s. He is currently the Legal Adviser to the Ministry of Foreign Affairs.

The next speaker, John Norton Moore, is, again, well known to many of you. He now heads the Center for Oceans Law and Policy at the University of Virginia where he's a professor of international law. He was Counselor to the State Department and was Deputy Representative of the United States to the UN Law of the Sea Conference, and very active in Caracas, Geneva and New York during a number of sessions in the mid-1970s.

The first of our commentators is Hans-Joachim Kiderlen, who is Deputy Counsel General to the Federal Republic of Germany's consulate here in San Francisco. He was with the Foreign

Ministry and served on the F.R.G. Delegation to the UN Law of the Sea Conference.

Our second commentator will be Brian Hoyle. He is with the Office of Ocean Law and Policy of the Department of State and a former member of the U.S. Delegation to the UN Law of the Sea Conference.

Our third commentator is Jack Garvey, a professor of law at one of our host universities, the University of San Francisco, where he teaches international law.

Our last commentator is Bruce Harlow, Rear Admiral, U.S. Navy, and the Assistant Deputy Judge Advocate General. Bruce has been an important adviser to the United States for a number of years in the development of oceans policy and was on the U.S. Delegation to the UN Law of the Sea Conference.

THE LAW OF THE SEA EXPERIENCE AND THE CORPUS OF INTERNATIONAL LAW: EFFECTS AND INTERRELATIONSHIPS

Francisco Orrego Vicuna
Ambassador
Embassy of Chile, London
and
Professor of International Law
University of Chile

THE CORPUS OF INTERNATIONAL LAW DEFINED

In a recent study on custom, Professor Bin Cheng has analyzed the difficulties of determining what precisely is to be considered in the corpus of international law at a certain point in time [1]. He has written in this regard:

> The term "international law" is often used to mean the international legal system as a whole, including all the rules therein. But most of the time, it is used to refer to what the International Court of Justice is increasingly calling "General International Law" ... In its wider meaning, "General International Law" includes both general principles of law and customary international law. In its narrower sense, it refers only to the latter [2].

A comprehensive analysis of the corpus of international law requires, consequently, the discussion of at least three of its main components, namely, the rules of conventional international law, the general principles of law, and customary international law. This essay, however, will deal only with the conventional and the customary element of that corpus of law. In doing so, one has to pay particular attention to the fact that the purview of these rules is different according to the source from which they originate. While treaties will normally follow the fundamental principle of res inter alios acta and the related principle Pacta tertiis nec nocent nec prosunt, binding only the parties to the legal instrument and not affecting rights or duties of third parties, customary rules will be characterized generally by their universal application.

On the other hand, the interrelationship between these different components has been steadily developing as the process of formation of the various rules has changed along the lines of the historical acceleration of world affairs and the related effects on the international legal system. Eduardo Jimenez de Arechaga has noted that one of the principal features of the lawmaking process in contemporary international law is the simultaneous interplay of its sources [3].

Typical examples of this phenomenon are the influence exercised by the work of international organizations on the development of treaty law and the related simultaneous emergence of rules of customary law based on such developments. While lex lata and lex ferenda have kept a clear theoretical distinction in their status and legal effects, the practical differentiation is increasingly difficult to assert, since, as Cheng has also observed, "the task of verifying the lex lata does not preclude the witnessing of the gradual emergence of a rule of law in its formative stage" [4]. The problems associated with the consensus emergent will be discussed further below.

The main interest of the law of the sea experience, including both the process of negotiation and its final law-creating outcome, is that it has heavily influenced this complex set of legal interrelations. Not only has this experience contributed to the material development of the law in an impressive list of subjects, but it has also provided the most recent and comprehensive example of the simultaneous work of the various sources of international law which have been called into play during such process.

CODIFICATION AND PROGRESSIVE DEVELOPMENT: THE MATERIAL CHANGE IN THE LAW

By far the most important impact that the law of the sea experience had had on the corpus of international law has been its contribution to the material development of the law. Few if any of the points which were dealt with by the 1958 Geneva Convention on the Law of the Sea have remained unchanged after this recent experience. Some of the changes that have taken place have profoundly altered the legal regime applicable to the subject matter in question, a case in point being that of straits used for international navigation. Some other changes have meant not so much a substantive alteration of the regime as a more detailed treatment of the various activities regulated under such regime, an example of this being that of the rules on innocent passage. Other changes have expanded the geographical scope of the pertinent regimes while not fundamentally affecting the basic underlying concepts of such regimes, this being the case of the territorial sea and contiguous zone concepts.

Because of the overall impact of these changes on the material content of the law of the sea, the reference made to "codification" in preambular Paragraph 7 of the Convention does not appear to be entirely accurate. Professor Vukas has rightly pointed out in this regard that "there are few instances of genuine codification accomplished within the framework of this Conference" [5].

The "progressive development of the law of the sea achieved in this Convention," as that preambular paragraph also states, is beyond doubt the most salient characteristic of the 1982 Treaty. The regime of the exclusive economic zone, the continental shelf, and the seabed area beyond the limits of national jurisdiction are but three of the fundamental

developments introduced in the law of the sea by the new Convention. These changes have probably been the most extensive introduced by any international conference in the corpus of international law at any point in time, from the point of view of both the number of concepts or substantive provisions included and the extent of the changes and numerous developments introduced [6]. It would not be an exaggeration to compare the outcome of this Conference with that of the Peace Conference of 1919 or that of the United Nations Conference in 1945, in that both introduced fundamental changes in the structure of the international community and its organization.

ARGUMENTS OF CONVENTIONAL HIERARCHY AND THE LAW OF SUCCESSIVE TREATIES

Given the intensity of the material impact described, the issue of the relationship between the 1982 Convention and earlier treaties on the law of the sea came to the fore with full force. As Professor Vukas has remembered, "there were opinions expressed at the Conference that the new Convention should supersede the 1958 Convention *erga omnes*" [7]. That approach would have meant in fact the recognition of a normative hierarchy among the various treaties on the subject. However, that was a step that the structure of international law at the time was not yet prepared to accept, in part because of its predominant consensual character and in part because, as has been put by Professor Bin Cheng, international law should not be confused with any form of world law, which until now is non-existent [8].

The solution adopted in Article 311, Paragraph 1, of the Convention, in that it shall only "prevail" as between states parties over the 1958 Convention, is in line with the rules of the Law of Treaties. The mere fact that this discussion took place, however, reveals the different approaches to the problem of hierarchy in international law. This has turned out to be a recurrent issue in the law of the sea experience. Notwithstanding what is said below in this regard, it is important to bear in mind that paragraph 2 of Article 311 also has some influence on this issue. This paragraph provides as follows:

> This Convention shall not alter the rights and obligations of States Parties which arise from other agreements compatible with this Convention and which do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under this Convention.

An interpretation *contrario sensu* of this problem has been suggested, in that "the Convention shall alter the rights and obligations of States Parties which arise from other agreements incompatible with the new Convention and which do affect the enjoyment by other States Parties of their rights or the

performance of their obligations under this Convention" [9]. It has been further suggested that by means of the operation of this clause the rights and duties of States Parties to those other agreements which are not parties to the Convention could also be affected, a situation which would be contrary to the pacta tertiis principle [10]. Therefore, it is argued, the approach "gives the impression that the drafters of the Law of the Sea Convention wish to consider this instrument as a treaty of a higher rank than other treaties in the field [11]."

While at first sight such an interpretation appears plausible, a closer look at the provision seems to lead to a different conclusion. To the extent that the provision of those other agreements might be incompatible with the new Convention, any conflict will be resolved according to the general rules of the Law of the Treaties. Therefore, Article 311, Paragraph 2, necessarily refers to a situation in which the compatibility between the two treaties has not been affected in relation to the rights and obligations concerned. It follows that this can only be so if those rights and obligations "do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under this Convention," for otherwise it would be a case of incompatibility. Consequently, the meaning of the provision is that rights and obligations arising from such other agreements that have not been affected by situations of incompatibility shall remain in force. This is not strictly a case of hierarchy of rules but one of application of successive treaties, which is altogether common in international law.

It can reasonably be concluded from the foregoing that the relationship between the 1982 Convention and other rules of conventional international law which belong to the corpus juris gentium, is not really different from the basic rules provided for by the Law of Treaties. As will be discussed later, more difficult problems have emerged in the relationship with customary law.

GENERAL PROVISIONS AND SPECIAL TREATIES: A RELATIONSHIP IN HARMONY

The Law of the Sea Convention has also established other forms of interrelation with the corpus of conventional international law. One interesting approach is that of relating certain rights or obligations to the rules and standards defined by means of other treaties or even to the work of specialized international organizations. An example of this is provided for by Article 217 which, when dealing with the enforcement of the rules on the protection and preservation of the marine environment by the flag State, refers to compliance "with applicable international rules and standards, established through the competent international organization or general diplomatic conference." Various other articles follow the same approach. In this particular field, the legislative work of the International Maritime Organization acquires a new way of

enforcement by means of the 1982 Convention, binding those states which are parties to such other treaties.

The provision of Article 237 should also be noted in this regard. Here it is mandated that the provisions of the Part of the Convention dealing with the marine environment "are without prejudice to the specific obligations assumed by States under special conventions and agreements concluded previously ... and to agreements which may be concluded in furtherance of the general principles set forth in this Convention." There is here a recognition of the fact that the Convention has only dealt with general principles and objectives in the field, leaving the detailed development of specific rules to more specialized treaties. The overall operation of the law is therefore given by both the 1982 Convention and the specialized treaties, for which purpose Article 237 has provided the link.

Paragraph 2 of that Article has further provided that specific obligations assumed by states under special conventions "should be carried out in a manner consistent with the general principles and objectives of this Convention." The language used on this occasion is not quite mandatory, probably because the general principles and objectives of the Convention in the field of marine environment are derived mostly from the specialized treaties themselves, thus making the possibility of inconsistency fairly remote.

It is interesting to note that the underlying rationale in the relationship between different sets of conventional rules in respect of the marine environment is almost the opposite to that analyzed in relation to Article 311. While the former puts due onus on safeguarding the enforcement of the rules established by means of other treaties and seeks a general harmonization of general and specific provisions, the latter appears to be the outcome of a more confrontational attitude as to which rules shall prevail in the case of conflict.

THE RULES ON DELIMITATION AND THE MEANING OF THE REFERENCE TO INTERNATIONAL LAW

The most intriguing of all the interconnections between the 1982 Convention and the corpus of international law is that contained in the twin Articles 74 and 83 with regard to the delimitation of the exclusive economic zone and the continental shelf respectively. Such delimitation "shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution." Consequently, the answer to the very difficult question of delimitation is to be found in the corpus of international law and not in the Convention itself, for which purpose these articles have made the pertinent legal transfer.

While this approach proved to be the only one that could satisfy the concerns of the various interests involved in the negotiations, most notably those of the equidistance and the equitable groups, the interpretations that have later been put

forward have introduced a note of uncertainty about the meaning of the reference to international law in this context. At the political level, the negative votes of both Turkey and Venezuela on the occasion of the adoption of the Convention were founded on the belief that such an approach could favor the equidistance position.

The legal discussion of these provisions has been equally diverse. Professor Rene-Jean Dupuy has recently written in this regard, "From the reference to international law one can only infer that this provision refers to the customary law of delimitation, as expressed in the practice of agreements and decisions" [12]. It is then argued that this customary law is very difficult to apply given the very different cases in which those decisions have intervened [13]. An interesting analysis by Jens Evensen on the history of the drafting of these provisions and the possible meaning of recent judicial and arbitral decisions reveals that it is difficult indeed to try to derive a clear-cut answer from the corpus of international law on this question [14].

It is perhaps appropriate to unveil to some extent the mystery surrounding this reference to international law. This writer had the privilege to suggest this approach to the problem during an equidistance group meeting with Judge Manner in 1980. The intention of this suggestion was entirely unrelated to the interests of equidistance versus equity or generally to the furtherance of any one point of view over any other point of view, but was meant as an objective contribution to the unlocking of the negotiations of the group presided over at the time by Judge Manner.

The main concern underlying this suggestion was the not too infrequent situation in which one party to a dispute on delimitation will try to impose its point of view on the other party regardless as to whether those views have any basis whatsoever in international law. Occasionally this situation includes the use, or the threat of the use, of force, as Chile had the opportunity to experience during 1978. This kind of attitude has no place whatsoever in the lawful and equitable process of delimitation and must be ruled out entirely as an essential requirement. Subjecting the pertinent agreement to international law ensured this purpose.

On the one hand, the reference to international law would provide an objective framework to determine the lawfulness of an agreement on delimitation. For example, an agreement extracted by force would certainly not qualify under such provision. Although the same conclusion could be reached under the general operation of the law of treaties, or in application of fundamental rules of conventional and customary international law, it was felt that, given the elusive character of those general provisions, a specific reference to international law in the very context of delimitation would provide a useful reminder.

On the other hand, the reference to international law would provide ample ground rules, precedents and opinions in which to

seek the pertinent solutions to the issues of substance involved in the process of delimitation. This would be without prejudice to the application of equidistance, equity or any combination thereof, depending on the terms and circumstances of the specific questions posed. The only thing that again would be ruled out would be a solution entirely contrary to or unwarranted by the corpus of international law.

It follows that the reference to international law was also intended specifically to interlink the question of delimitation with the broad corpus of international law. It was not only customary law that would be interconnected in this way, but also precedents arising from conventional international law, criteria derived from the principles of international law, decisions of international courts and tribunals, as well as the opinion of writers. When at a later point it was suggested to link this broad scope of reference with Article 38 of the Statute of the International Court of Justice, this approach was also welcomed in that Article 38 contains a broadly accepted definition of the sources of international law, while not preventing recourse to other sources which have been accepted since.

From what has been explained, a few general conclusions can be drawn. Firstly, the articles do not prejudge any basic position and so they were generally understood by the various interests represented at the Conference. Second, the corpus of international law provides an objective framework for determining the lawfulness of the agreements concluded. Thirdly, that corpus provides an ample body of rules, principles and precedents as to undertake the precise delimitation either by means of a negotiated agreement or of third party settlement.

THE ROLE OF NATIONAL LEGISLATION

The law of the sea experience has another important relationship which needs to be briefly examined: that with national legislations [15]. Although these legislations are not as such part of the corpus of international law, they do have a significant influence on the development of the rules of both conventional and customary international law, and this situation has been clearly reflected in the law of the sea negotiations. The paramount example has of course been that of the exclusive economic zone.

Since Chile enacted for the first time a maritime zone for the purpose of limited resource jurisdiction in 1947, the concept began gradually to gain acceptance in national legislations [16]. By the time the Law of the Sea Conference was convened a significant number of countries had claimed areas under this concept; shortly thereafter the EEZ had become accepted in virtually every relevant national legislation or policy.

Because of the process of interaction which had taken place in this matter while the Conference agreed on the conventional rules governing the EEZ, simultaneously the concept had been incorporated in the sphere of customary international law. The

common ground for both developments had been the national legislations enacted on world-wide basis, thus reflecting a consistent practice of states.

The simultaneous interplay of sources and legislation at the international and domestic levels is a convincing evidence of the short time span which today characterizes the process of formation of a rule of international law, and the need to take into consideration the parallel developments of national legislation in order to ascertain with accuracy the changing trends in a given legal domain.

CUSTOMARY INTERNATIONAL LAW: THE PROTOTYPES OF STATE ATTITUDE

Of the various impacts of the law of the sea experience on the corpus of international law, the most difficult to assess is that related to customary law. This is partly so because of legal reasons, the nature of customary international law, and its process of formation being a complex matter. But it is also so because of political reasons associated with prevailing national policies, the influence of which in the lawmaking process cannot be ignored.

In his study on custom, Professor Bin Cheng distinguishes three basic attitudes that states can adopt in the lawmaking capacity in the international sphere: (1) "In certain instances, states have no intention of changing the basic rules of the game." (2) "In other cases states may indeed be prepared to modify the basic rules of general international law, but only subject to specific conditions or as a part of a 'package deal'." In such an alternative the acceptance of the rules is not made irrevocable, which would be the case if such rules were binding as customary law. However, these rules may of course become "generalizable" as a part of general international law. (3) "States, provided that they are prepared to see a new rule of general [customary] international law introduced, can do so quite consciously, openly and deliberately" [17]. This third possibility might eventually include the formation of instant customary international law, a concept which is indeed subject to debate.

In examining the law of the sea negotiation and end results, one can readily recognize the various attitudes described, although in many cases the situations will not be as clear cut as in the prototypes mentioned. It is quite clear, for example, that states had no intention of changing the rules relating to innocent passage in the territorial sea, and the fact that some such rules were amended for the purpose of clarification -- as is the case of the list of activities considered innocent -- does not derogate from that attitude.

The rules on transit passage provide an example of the second type of attitude described by Cheng. The basic rules of general international law were indeed modified in the context of a "package deal," but this was done in a very specific conventional relationship for the purpose of securing that deal and not with the intention of "generalizing" those provisions

into a rule of new customary law. In other words, using Cheng's expressions, such a change expresses an opinio obligationis conventionalis and not an opinio juris generalis [18]. As a consequence, the obligations can be revoked, by means of denouncing the Convention, and third states are not entitled to invoke such provisions as a right under the law. This does not rule out the possibility that those rules might eventually become a part of customary law, if they comply with the general requirements of opinis juris and state practice, but such a situation has not happened.

Some authors have made the effort to try to demonstrate that transit passage had become a rule of general international law irrespective of the 1982 Convention [19]. While this position is understandable from the point of view of the national interest of their countries, it is not convincing and has not in fact been shared by other writers [20]. This is a further confirmation that the change that has taken place in the law has not become "generalized," and, therefore, it is strictly a part of conventional development.

The third type of attitude is known when the intention of the law-creating states is indeed to introduce, reaffirm, or develop a rule of customary international law. Recent analysis on the subject tends to agree that the Convention has in this regard proceeded in three different levels of relationship. Professor Dupuy has identified the three following levels: (1) ancient rules, already codified in the 1958 Conventions, which have been retained; (2) rules that have been introduced into customary law as a consequence of the significant volume of national legislations containing a given legal approach, the paramount case being of course that of the EEZ; (3) the emergence of new rules which find their legal foundation on the Convention, binding states parties, and which have not yet been confirmed as custom [21].

Tullio Treves has, on his part, identified three categories in which the provisions of the Convention may be grouped:

> (1) provisions that codify or restate the existing law of the sea, either customary or conventional; (2) provisions that clarify, redefine or make more precise what has been implicit in international law or related developments; and (3) new, unique or unprecedented provisions [22].

Which provisions belong to each category and what legal effect that classification might entail is, of course, subject to much diplomatic and scholarly controversy, as Treves has well explained on the basis of the interventions made at the closing session of the Law of the Sea Conference [23].

Be that as it may, the fact is that the prototypes described serve well the purpose of providing guidelines for the grouping of the various provisions of the Convention according to what has been the stated or the presumed intention of the legislating states. In the case of a Convention as complex as

this one it is not possible to make general assumptions about certain provisions being or not being a part of customary law, and, as Dupuy [24] and Treves [25] have underlined, every provision or set of provisions will require detailed study before reaching conclusions in this regard.

The pertinent test will need to prove, in the first place, that the provisions in question do comply with the general requirements of international law as to the identification of a customary rule. The norm-creating character of the provision and the fact that it can be regarded as forming the basis of a general rule of law is a requirement which is not too difficult to identify since to a large extent it will be based on objective criteria. Different, however, is the case of the requirements related to opinio juris and state practice, which are of course more difficult to establish, the former because of its subjective character and the latter because it might take a considerable time to obtain the necessary confirmation by means of such practice.

Two further complications are associated in this regard with the law of the sea experience. The first is that not all the provisions which might be considered a part of customary law will emerge from the process of "metamorphosis of treaty provisions into rules of general international law," following the expression of Cheng [26], but some will have attained the status of customary rule before or independently from the signing and entry into force of the Convention. This might happen because the Convention has merely codified some rules of existing customary law, a case which is not too difficult to determine. It can also happen because the rule of customary law has evolved and became established simultaneously with the diplomatic negotiations and state practice on the matter. This is of course more difficult to ascertain.

As Judge De Lacharriere has written in this regard:

> The evolution of the law of the sea has not awaited the entry into force of the convention so as to incorporate some of the essential elements of the change which the text reflects. Being a Conference which was theoretically meant to produce conventional law, its results cannot be summarized without recognizing the very important role of customary law which that Conference helped to establish [27].

This process might eventually include the case of instant customary law and the very complex interplay of sources which were elaborated upon above.

The second complicating factor associated with the law of the sea experience is related to the "package deal" approach to negotiations. The second prototype described by Professor Cheng operates most typically in such a situation, since the acceptance of the rule by states might be intended as a means of securing the deal and not of recognizing its generalization into customary law [28]. Judge De Lacharriere has also addressed this problem:

> ... it is not so simple to assimilate with opinio juris on given subjects the position stated in the process of negotiating deals (marchandage) on the broad spectrum of problems concerned. Moreover, since the "package" principle is supposed to govern the negotiations as a whole, customary law can choose to be applied only to some of the matters dealt with and, therefore, except itself from such package principle" [29].

As was mentioned earlier, a typical example of this situation is that of transit passage, which was part of the deal associated with the enlarged territorial sea.

NORMS OF GENERAL SCOPE AND DETAILED TREATY ARRANGEMENTS: LIMITS FOR CUSTOMARY LAW

In certain instances of the negotiating process it will not be easy to draw a clear distinction between the emergence of a rule of customary law and what has been termed a consensus emergent [30]. While it is clear that the consensus emergent will precede the formation of a rule of customary law, it is not quite clear at what point the binding character of the latter will be finally established as opposed to a mere consensual and voluntary acceptance of the rule. Given the interplay of intervening sources in the formation of contemporary law, the time difference between one and another step might be insignificant or even nonexistent. However, there is a point of view which tends to emphasize the consensus emergent in order to avoid the possibility of accepting the creation of a customary rule, and therefore to escape its binding legal character [31].

It is also important to bear in mind that even when a provision is identified as a rule of customary international law, there will always be some uncertainty about the precise extent of the "metamorphosis" which has taken place. While the general meaning and extent of such provision will undoubtedly be transformed into customary law, the many details which the treaty usually contains will probably not be a part of that transformation. This is one of the essential differences between treaty law and customary law.

Both Treves [32] and Vukas [33] have commented in this regard that while the general meaning and extent of the exclusive economic zone is already a part of customary law, most of the accompanying detailed provisions of the Convention are not. By the same token it can be argued that while the basic elements of the regime of the territorial sea, including the twelve-mile limit, can be considered as having been transformed into customary law, in some instances a long time ago, not every detail of the Convention will have followed the same path. Similar arguments can be made in relation to the continental shelf, which is typically customary law, and the question of its outer limit as defined in the 1982 Convention, which is probably

not a part of custom. Archipelagic waters and other matters are not different.

THE SEABED REGIME: CONVENTIONAL OBLIGATIONS OR *OPINIO JURIS GENERALIS*?

The most controversial aspect of the effect of the law of the sea experience on customary law is that related to the seabed regime and Part XI of the Convention. This is not so much on the ground of strict legal difficulties, since the process of formation of a customary rule in this field is not different from that in any other field, although of course the range of new issues covered in such a regime has contributed to the difficulties encountered in the negotiations and their legal results. More important has been perhaps the political difficulties associated with this matter, which at this stage cannot be entirely separated from the legal process.

A first difficult question to determine is, in which of the basic categories mentioned can the attitude of states be grouped in the particular matter. Perhaps the first of Cheng's prototypes can be reasonably excluded, since the whole purpose of the exercise has been to develop new rules applicable to the seabed. Whatever the rules of the game were before, a matter which in itself is subject to different views, those have been changed by means of the Convention. Whether this was done solely with the intention of accepting conventional obligations or as an expression of *opinio juris generalis* is the crux of the matter. Depending on the answer one of the two other prototypes will become the controlling factor.

As it is well known, opinions are sharply divided on this issue. From one point of view the Convention entails nothing else than pure conventional obligations, and those states that do not become party to it are free to pursue their interest by means of other approaches, whether they be national legislation or restricted competing treaty arrangements. From another point of view, however, there is in addition to any conventional relationship an obligation or set of obligations under customary law, independently from the entry into force of the Convention or the participation therein. These obligations are those associated with the concept of the common heritage of mankind, and no legislation or treaty could derogate legally therefrom.

Abundant arguments have been put forward in favor of one and the other position. Perhaps a useful distinction to introduce is that between the principle or concept of the common heritage and the precise regime governing the exploration and exploitation of seabed resources as defined in the Convention. It is not unreasonable to think that such a principle might have become a rule of customary international law as applied to the seabed. Its law-creating character, *opinio juris*, and state practice are not at variance on this point, since all states, including those that do not accept the conventional regime, are in agreement about the basic elements of the principle, namely, that the area should not be subject to national appropriation,

that it should be reserved exclusively for peaceful purposes, and that the exploitation of its resources should benefit mankind as a whole. Besides the voting record of Resolution 2749(XXV), further evidence of this agreement can be found in the fact that not one state has ever stated a divergent position on this point.

Different, however, is the case of the detailed regime contained in the Convention. While its law-creating character is beyond doubt, the existence of an opinio juris generalis has not been objectively demonstrated, and, on the contrary, a number of states have expressly recorded their views as objecting to such an eventual conclusion. While the formation of customary law probably does not require unanimous acceptance -- a point of considerable discussion [34] -- the fact that some of the states most directly concerned with the seabed exploitation have not joined the consensus emergent has a legal implication which would not pass unnoticed to an international tribunal. Whether one likes or dislikes this situation, the legal issue appears to be quite clear at this point in time, which is not to say that it might not change in the future.

Bearing this distinction in mind the Chilean proposal on jus cogens at the Conference referred only to the principle of the common heritage specifically contained in Article 136, and not to any other of the numerous articles dealing with the regime [35]. There appears to be enough evidence to support the establishment of such a principle not only as a rule of customary law but also as one of jus cogens. Although the views expressed during the debate were not in agreement, divergences referred not so much to the principle as such but to other factors, in particular the concern that an eventual declaration on jus cogens might expand to cover the regime in its entirety or that it might be used to try to include other matters, as was the intention of some delegations because of political reasons. Some countries are also opposed to jus cogens as a matter of national policy. In spite of the disagreement, Article 311, Paragraph 6, of the Convention reflects to some extent the Chilean proposal. The legal meaning of this provision is not insignificant.

The relevance of the distinction suggested has also been recently underlined by Professor Treves:

> ... the meaning of the "common heritage" principle should be studied closely. One might, for instance, use as a working hypothesis that the substantive aspect of the principle, according to which exploitation of the deep seabed resources must entail some sort of sharing of the benefits, is generally accepted, while the same cannot be said of the procedural aspect according to which exploration and exploitation must be conducted under a regime and within the framework of a machinery set up by a general convention [36].

Even if this distinction becomes generally acceptable and is so recognized, it does not answer one fundamental problem which is at the heart of the current controversy, namely, whether alternative approaches to seabed mining, like unilateral legislation or a mini-treaty, are lawful under international law.

The opinion of the writers of international law is equally divided on this issue. In the passage quoted above, Treves implies that such alternative approaches are lawful indeed for states not parties to the Convention. Similar is the conclusion reached by Dupuy, who suggests that unilateral legislation might operate in the context of a dedoublement fonctionnel, that is, the competence to mine under such laws is not entirely discretionary but has to comply with the objectives pursued by the common heritage concept [37].

Vukas, on the contrary, admitting that the question remains unsettled, concludes nevertheless that third states "in no case have the right to establish particular regimes outside the Law of the Sea Convention" [38]. The writer of this essay reached a similar conclusion while the negotiations of the Law of the Sea Conference were still in progress [39].

De Lacharriere, while not taking a position on the matter in view of his judicial functions, correctly observed that "the legal construction which the Convention has established with regard to the common heritage of mankind, the powers of the Authority and other matters, clearly implies that it meant to be universally accepted" [40].

The only point in which all writers have been in agreement is that under no customary rule would states be under an obligation to participate in the institutional machinery or in the procedures for the settlement of disputes established by a Convention to which they are not parties [41]. The point of course is quite important since the elaborate regime of the Convention cannot work without the appropriate institutional arrangements. It follows that if the latter are not fully universal, because of the non-participation of a group of states, this will affect also the capacity of the regime to be universally enforced.

All this discussion refers to the obligations that might derive for third states from the 1982 Convention seabed regime. A further complicating factor, which has not been discussed at any length, is that of the eventual rights which could benefit third states under that Convention. Vukas has commented that such states should have some rights in relation to the common heritage [42], but the question of what these rights are and their extent, or how they will be determined, has remained open.

The terms of the problem can be put as follows. Because the concept and basic elements of the common heritage of mankind as applied to the seabed have been transformed into customary law -- assuming this hypothesis is accepted, as it is apparently

so -- no particular regime can deviate from this basic rule, this being the fundamental factor governing its eventual lawfulness.

On the other hand, because the detailed regime of the Convention has not become a part of customary law, as has been eloquently argued with reference to the rules of international law as presently stated, it cannot aspire to be binding on third states, either in terms of its operational provisions or in terms of its institutional arrangements.

Within these legal parameters a solution might be sought. The approach of a dedoublement fonctionnel suggested by Dupuy is a useful contribution within this line of thought, although of course it would be difficult to find complete reconciliation on this ground. This would probably be true of any suggestion, given the highly passionate ideological stances that have been adopted in this regard, a situation which unfortunately will interfere with the legal considerations that could otherwise intervene in a settlement. One thing is quite clear though. None of these positions will be able to impose its views on the other, neither politically nor legally. In view of this situation it would be highly desirable to have renewed negotiations in order to overcome the existing differences and reshape the emergent consensus which was interrupted, an exercise which should be entirely deprived of the ideological connotations which it had before and which should be based on more pragmatic and reasonable approaches. Until this happens the fundamental problems of international law raised by the discussion will probably remain to a large extent unsettled.

Bin Cheng has well described the terms of this difficulty in international law:

> The horizontal character of the international legal order ... means that genuinely bona fide disputes regarding the interpretation of the rule of international law can easily arise because of the polysemous nature of the rule and no purely scientific judgement can be made as to which party is right and which party is wrong, because both interpretation are, according to the accepted rules of interpretation, perfectly permissible. Failing agreement between the parties through negotiations on either the interpretation to be adopted or on third-party settlement such disputes are in international law simply not soluble [43].

CONSENSUAL AND HIERARCHICAL APPROACHES TO THE INTERNATIONAL LEGAL SYSTEM

To some extent the problems of the relationship between the Law of the Sea Convention and the corpus of international law, either conventional or customary, emerge from different views about the nature of the international legal system. For one group of states that system is of a fundamental consensual

character, and hence no obligations can be created without the voluntary acceptance of its subjects. For another group, however, the system is evolving towards a hierarchical structure similar to the system of domestic law, one expression of which is the admissibility of lawmaking treaties "whereby a large number of states can write a treaty which will ipso facto bind all subjects of international law, irrespective of their consent [44]."

Most of the controversies associated with the law of the sea experience originate from this different understanding about the system. Prosper Weil [45], Bin Cheng [46], and others have recently written important contributions about the nature of international law in the context of this discussion, its ideological implications, and the meaning of the purported changes. There is no doubt that the system of international law has evolved in many important respects, but none of the intervening changes has so far altered in any fundamental way the predominant position of states in such system, including their role in the law-creating process and the need for a clear expression of their consent as to the acceptance of obligations and the establishment of binding norms.

The law of the sea experience has provided important evidence as to the extent of the changes and their limits. The relationship with the corpus of international law reflects well this double dimension, since, on the one hand, that experience has contributed significantly to substantive and procedural changes in the law, but, on the other hand, it has done so within the parameters set by the system of international law in force as to the nature of the obligations and legal developments involved.

NOTES

1. Bin Cheng, "Custom: the Future of General State Practice in a Divided World," The Structure and Process of International Law, edited by R. St. J. McDonald and D. M. Johnston, 1983, pp. 513-554.
2. Ibid, p. 526.
3. Eduardo Jimenez de Arechaga, "International Law in the Past Third of a Century," Recueil des cours de l'Academie de droit international, I(1978): 1-344, particularly Chapter 1.
4. Cheng, "The Future of General State Practice," p. 514.
5. Budislav Vukas, "The Impact of the Third United Nations Conference on the Law of the Sea on Customary Law," The New Law of the Sea ed. C. L. Rozakis and C. A. Stephanou, 1983, p. 34.
6. See generally Nicholas Valticos, "Introduction," The New Law of the Sea, pp. 1-7.
7. Vukas, The Impact, p. 36.

8. Cheng, "Custom: The Future of General State Practice," pp. 515-516.
9. Vukas, The Impact, p. 37.
10. Ibid, p. 37.
11. Ibid, p. 37.
12. Rene-Jean Dupuy, "Politiques nationales et systeme juridique issu de la 3eme conference," Le droit de la mer apres la 3eme conference des Nations Unies, Societe francaise pour le droit international, 2-4 June 1983, pp. 35-36.
13. Ibid, p. 36.
14. Jens Evensen, "The Delimitation of Exclusive Economic Zones and Continental Shelves as Highlighted by the International Court of Justice," The New Law of the Sea, pp. 107-154.
15. See generally Dupuy, "Politiques nationales," pp. 7-15.
16. See generally Francisco Orrego Vicuna, The Exclusive Economic Zone. A Latin American Perspective, 1983.
17. Cheng, "Custom: The Future of General State Practice," pp. 534-535.
18. Ibid, p. 535.
19. John Norton Moore, "The Regime of Straits and the Third United Nations Conference on the Law of the Sea," American Journal of International Law, 74 (1980): 77-121.
20. See for example Dupuy, "Politiques nationales," pp.32-33.
21. Ibid, p. 34.
22. Tullio Treves, "The United Nations Law of the Sea Convention of 1982: Prospects for Europe," Britain and the Sea: Future Dependence, Future Opportunities, Greenwich Forum, 15 September 1983, p. 6.
23. Ibid, pp. 6-7.
24. Dupuy, "Politiques nationales," p. 34.
25. Treves, "Prospects for Europe," p. 4.
26. Cheng, "Custom: The Future of General State Practice," p. 532.
27. Guy de Lacharriere, "La reforme du droit de la mer et le role de la conference des Nations Unies," Le nouveau droit international de la mer, ed. Daniel Bardonnet and Michel Virally, 1983, pp. 27, 32. See also the article published by the same author in Revue generale de droit international publique, 1980, pp. 216-252.
28. Cheng, "Custom: the Future of General State Practice," p. 534.
29. De Lacharriere, "La reforme du droit," p. 32.
30. Jean Monnier, "La troisieme conference des Nations Unies sur le droit de la mer," Annuaire suisse de droit international, 1983, p. 35.
31. De Lacharriere, "La reforme du droit," p. 28.
32. Treves, "Prospects for Europe," p. 5.
33. Vukas, "The Impact," p. 42.
34. Cheng, "Custom: the Future of General State Practice," pp. 538-539.
35. See the proposal by Chile on jus cogens in Doc. FC/14. 20 August 1979.

36. Treves, "Prospects for Europe," p. 8.
37. Dupuy, "Politiques nationales," pp. 44-45.
38. Vukas, "The Impact," p. 50.
39. Francisco Orrego Vicuna, "Les legislations nationales pour l'exploitation des fonds des mers et leur incompatibilite avec de droit international," Annuaire francais de droit international, 1978, pp. 810-826.
40. De Lacharriere, "La reforme du droit," p. 31.
41. Dupuy, "Politiques nationales," pp. 43-44; Treves, "Prospects for Europe," p. 4; Vukas, "The Impact," p. 49.
42. Vukas, "The Impact," pp. 49-50.
43. Cheng, "Custom: the Future of General State Practice," p. 522.
44. Ibid, p. 520.
45. Prosper Weil, "Vers une normativite relative en droit international," Revue generale de droit international publique, 1982, pp. 6-47.
46. Cheng, "Custom: the Future of General State Practice."

THE EFFECT OF THE LAW OF THE SEA CONFERENCE UPON THE PROCESS OF THE FORMATION OF INTERNATIONAL LAW: RAPPROCHEMENT BETWEEN COMPETING POINTS OF VIEW

Jens Evensen
Royal Ministry of Foreign Affairs
Norway

INTRODUCTION

The purpose of my intervention is to place the United Nations Law of the Sea Convention of 10 December 1982 in a proper legal and political perspective, and to examine what principles, if any, may be deduced from the Convention as expressions of prevailing principles of Law.

When the United Nations at its Twenty-fifth Session in the fall of 1970 decided to proceed with the Third United Nations Law of the Sea Conference, the Organization embarked on a gigantic attempt to create a modern international constitution for the world oceans. These efforts were as much a daring venture of international politics and international relations as an exercise in international law. The Law of the Sea Conference and the resulting United Nations Law of the Sea Convention are certainly the most comprehensive political and legislative work undertaken by the United Nations in its thirty-nine years of existence. We have created a new international order for five-sevenths of the surface of our globe. It goes without saying that the success of this endeavor has enhanced and will further enhance the prestige of the United Nations as the world organization. It has become one of the main peace-promoting achievements of the United Nations. The results obtained by this unique exercise have been innovative, even revolutionary, in their political and legal implications. In many respects a centuries-old system relating to the oceans has been changed or fundamentally amended by the introduction of the 1982 Convention.

The underlying reasons for this effort to create a modern constitution for the world oceans were many. One aspect thereof is the possibility of exploiting through modern techniques the fabulous mineral resources of the deep ocean floor, in the form of so-called manganese nodules, polymetallic sulfides, and manganese crusts contained in the deep ocean floors. The possibility of replenishing the world's dwindling resources of oil and gas has likewise been an obvious motive for the constant drive seawards in the search for natural resources.

A serious problem for the industrialized world as well as for the developing world is the fact that mankind has exhausted -- or is rapidly exhausting -- basic mineral resources on land because of centuries of use and, unfortunately, also centuries of abuse of these land-based resources. The dissolution of the colonial empires dramatized the situation for the former

colonial powers and for their multinational corporations. In the last decades the activities of the multinationals have been curtailed by the policies of a number of developing countries, whose aspirations naturally enough are to control and obtain "sovereignty" over their proper natural resources. In these circumstances the oceans offer tempting new opportunities for the multinationals and have by the same token become a possible battleground for competing interests and claims.

The fabulous mineral resources inter alia in the form of so-called manganese nodules situated on the surface of the deep ocean floor have been known to the scientific world for some time. But the attention of the political world was drawn to the inherent political and legal consequences thereof by Ambassador Arvid Pardo of Malta in his famous speech in the General Assembly in November 1967.

The overall technological revolution after the Second World War with the fundamental breakthrough of a new technology opened up the oceans, the ocean floor, and its subsoil to a mode and rate of exploitation hitherto undreamed of. At the same time, this new technology exposed the marine areas to abuses and overexploitation of the living resources as well as of the mineral resources to an extent that mankind had never before envisaged. Thus for the first time in history of man, the realization dawned upon us that the living resources of the oceans were not inexhaustible but were, on the contrary, highly vulnerable to new technologies and fishing techniques and also to grave disturbances of the marine ecology and environment through the introduction by man into the oceans of a whole range of pollutants.

One future chapter of the history of man, of which we have been allowed only a few glimpses at present, is the potential for exploitation of the oceans and especially of the ocean floor and its subsoil through the extraction of enormous hidden mineral resources. And perhaps the oceans are even a potential habitat for man, as foreseen by Professor Cousteau and others. The possibilities of the oceans as a self-perpetuating source of energy through wave action, tidal action, and currents likewise seem to be things of the not-too-distant future.

The existence of exploitable petroleum resources in the continental shelves of a number of countries has added new dimensions to their status and importance in foreign policy matters, not least for my country, Norway. I am convinced that developments up to the year 2000 and beyond will entail increased competition to secure food, proteins, essential minerals and petroleum, energy, and other natural resources from the oceans. In a world where the land becomes ever more depleted with regard to these essential riches, ocean space will increase in possibilities and importance and in its potential to give birth to international conflicts.

Most of these resources are of strategic importance directly or indirectly. One of the main objectives of the Law of the Sea Convention is to establish an international legal order to meet these new challenges in order to avoid another era

of modern colonialism resulting in a dangerous race between nations for choice areas of the oceans, the ocean floor, and its subsoil.

The advent of the nuclear age has also added new dimensions to ocean space, especially the strategic importance thereof.

The emergence of two superpowers that are both divided and linked by the oceans has polarized and accentuated this enhanced strategic importance of the oceans. The terror balance which they have established in the hope that it will maintain world peace is to a frightening extent linked to the oceans, especially through their nuclear-armed and nuclear-powered submarines. Of course the UN Law of the Sea Conference was not oblivious to these problems. However, the Conference decided after thorough deliberations that these strategic implications and the questions of arms control and disarmament in relation to the world oceans should not be taken up by the Conference. The general view was that the Conference would not accomplish its task as a Law of the Sea Conference if it developed into a disarmament or peace conference. But the general atmosphere reigning in the Conference was expressed in a series of articles of the Convention which inter alia provide that the marine environment "shall be reserved for peaceful purposes."

The basic problems with which the Law of the Sea Conference tried to cope were the impact of the revolutionary developments in science and technology and the influence of these forces in international law. In a lecture delivered by Ambassador Eulalio do Nascimento e Sylva on 3 June 1983 in Geneva he stated, " ... nowadays technology has reached a stage in which every scientific discovery can be transformed almost overnight into reality" [1].

Of course these achievements in science and technology contain the promise of vast improvements and justified hopes for mankind in the future if wisely applied. But inherent in this revolution are likewise enormous potential dangers such as the abuse of nuclear energy for military or peaceful purposes, the lurking threats of the effects of other weapons of mass destruction, the ecological problems connected with the industrial and military technological revolution, and the rampant consumption of the world's dwindling stock of non-renewable resources.

In view of these new challenges the traditional concepts and principles of international law are put to a hard test. Traditionally international law develops slowly and cumbersomely in the form of conventions, customary international law, and general principles of law. It may also find its expression in certain basic tenets of the natural law of mankind as expressed in moral, religious, humanitarian, and philosophical axioms.

In addition to the technological revolution another contributing factor to the downfall of the traditional political/legal system governing the oceans was the abolition of colonialism and the emergence of some hundred new states with their dreams and aspirations anchored in concepts that in many respects are different from those of the industrialized and

westernized world. Thus we experienced in the UN Conference on the Law of the Sea clashes of ideology and cultural concepts with regard to the rights and uses of the seas, the seabeds, and their subsoil that obviously caused and will cause international strains.

ADOPTION AND SIGNATURE OF THE UN LAW OF THE SEA CONVENTION: THE DECISION-MAKING PROCESS

The Draft Convention of the Law of the Sea was adopted at the United Nations headquarters in New York on 30 April 1982 after some fifteen years of arduous negotiations in which virtually all states of the world took part. It had been our aspiration that the Draft Convention should be adopted by consensus. Unfortunately, a consensus decision eluded us. In a formal vote requested by the United States, 130 states voted in favor of the Convention, 4 voted against, and 17 abstained.

Practically all states from the developing world voted for the Convention. So did a number of countries from "the Western and other groups." The five Nordic countries together with Australia, Austria, Canada, France, Greece, Ireland, Japan, Portugal and Switzerland voted for it. Thus a number of members of the EEC and of NATO voted for the Convention. The four countries that voted against it -- for somewhat different reasons -- were the United States, Israel, Turkey, and Venezuela. Among the states abstaining were the remaining countries from the Western group and the Eastern European states with the exception of Rumania and Yugoslavia.

The crowning event of the Law of the Sea Conference was the signatory session, which convened in Jamaica in the second week of December 1982. At this Conference the incredible number of 119 signatures was secured on 10 December 1982.

Additional signatures have been forthcoming. According to the latest count, some 159 countries (and territories) now have signed the Convention, including the overwhelming majority of developing countries, all Eastern European states (with the exception of Albania), and a great number of the Western group of countries.

Some fifteen countries have already ratified the Convention. A series of ratifications may be forthcoming in the forseeable future.

According to Article 308 paragraph 1 the Law of the Sea Convention shall enter into force "12 months after the date of deposit of the sixtieth instrument of ratification or accession." Experience has shown that sixty instruments of ratification or accession are not easily attainable in a short period of time. Consequently the highly relevant question arises as to what extend the principles laid down in the Law of the Sea Convention have acquired or will acquire the force of prevailing principles of general international law (a) in the intermediary period before the Convention has entered into force and furthermore (b) for those countries that have not ratified or acceded to the Convention.

The constraints placed upon signatory states under the Vienna Convention on Treaties may also contribute to the formation of international law based on the principles laid down in the Convention. It is obvious that the situation with regard to applicability of the emerging law of the sea may vary for categories (a) and (b). In this connection it should be borne in mind that according to Article 309 of the Convention, "No reservations or exceptions may be made to this Convention unless expressly permitted by other articles of this Convention."

The lawmaking effects of the UN Law of the Sea Conference and the 1982 Convention may defy cataloguing under traditional doctrines of the sources of international law. But these general lawmaking effects should not be underestimated. In my respectful opinion they are at work today and will be so in the future. Many factors may contribute to these law-creating elements: (1) the immense prestige the Law of the Sea Conference acquired over the years, and (2) the unique decision-making process adopted for the Conference.

The Third United Nations Law of the Sea Conference will remain a significant chapter in the history of the United Nations and indeed in the history of international law. All members states contributed to the best of their ability. The United Nations Secretariat functioned throughout these many years with such unexcelled efficiency and will to succeed that it deserved and gained the unreserved respect and admiration of all participants.

The decision-making process adopted for the Conference was unique. From the outset it was acknowledged that it would be an exercise in futility to draw up a draft convention unacceptable to one or more major groupings within the United Nations. It was felt that if any main grouping remained outside the Convention the Conference had failed in its main function, namely to create a political and legal constitution for the oceans acceptable to all. The universality principle was thus the principle around which the Conference had to build its structure.

The unique features of this decision-making process consisted of three main elements:

1. The consensus principle.
2. The gentleman's agreement approved by the General Assembly on 16 November 1973 and endorsed by the UN Law of the Sea Conference on 27 June 1974.
3. The concept of the package deal.

The consensus principle was the cornerstone of the decision-making process of the Conference. As defined in the Law of the Sea Conference, it meant adoption of articles -- and the text of the Convention as a whole -- by general agreement (or understanding) without resorting to a vote and, in effect, without requiring a unanimous decision. It is a rather subtle and equivocal manner of making decisions but also a flexible one that presupposes a special atmosphere of understanding and detente in the negotiating forum.

The gentleman's agreement was part of and a necessary corollary to the consensus principle. The developing countries and other countries as well feared that a consensus principle without the option to resort to voting at some final stage, if the process of consensus bogged down, could in certain circumstances emasculate the Conference. Consequently, they insisted on voting as a final resort in such cases. After protracted negotiations, the gentleman's agreement was arrived at. This compromise consisted of two elements. Firstly, all possible efforts towards arriving at consensus must be exhausted before voting should take place. When an affirmative vote declared that all such possibilities had been exhausted, voting on the outstanding issues was foreseen. But even then a cooling-off period of up to ten days was provided for, so as to allow for an ultimate round of negotiations before the fateful vote was cast.

Closely connected with the consensus approach was the concept of a package deal. The package deal entailed the notion that all the main parts of the Convention should be looked upon as an entity, as a single negotiated package, where the laws of give and take presumably had struck a reasonable balance between the participating states considered as a whole. The package deal seemed a precondition for adopting the Convention by consensus. On the other hand, the package deal concept could obviously create complications if efforts were made to change or amend a single chapter or isolated articles during the course of the Conference, however praiseworthy such efforts may have been.

Great store was put on this novel decision-making process. It was felt that it might give new impetus to the United Nations with regard to efficacy. Thereby it might enhance the reputation of the Organization not only with regard to law of the sea matters, but also as an efficient decision-making mechanism in general for the future.

Two additional features with regard to the procedures of the Conference developed in a more spontaneous fashion.

One unique feature in the negotiating process was the role that informal groups, either self-appointed or established by the Conference, played in preparing draft articles. One such group was a self-appointed group of so-called legal experts. It worked as an entirely informal group of persons acting in a "private and personal" capacity although the group in general consisted of heads of delegations. The group produced preliminary drafts on several of the main topics. Other groups worked in a similar fashion. The results obtained in such groups were frequently channeled into the Conference as anonymous papers by "friends of the President" or similar vague wordings. They were extensively used by the President. One group that had a fundamental impact of the Conference in advancing claims but also in formulating compromise texts was the Group of 77, a group consisting of the developing countries in the United Nations. Another group that exerted considerable influence in regard to certain problem areas was a somewhat heterogeneous group of so-called "landlocked and geographically disadvantaged states."

Another unique feature which contributed to the successful outcome of the Conference was the initiative which the President took, beginning with the third session, to prepare comprehensive working papers together with the chairmen of the three main committees and in close cooperation with the Law of the Sea Secretariat. These working papers, in the form of articles, grew from single negotiating texts (1975) and revised negotiating texts (1976) which served as basis for the negotiations on and formulations of compromises in the Convention. Based on the work of the three main committees and formal or informal negotiating groups, these preliminary texts grew into a composite negotiating text (1977) and an informal draft convention (1979) as the discussions and compromises became more and more authoritative through the workings of the Conference. But it was the enormous prestige of President Amerasinghe and his exceptional impartiality, recognized by all, that made such an initiative acceptable to the Conference. In retrospect I believe that this unique approach chosen by Ambassador Amerasinghe at crucial stages saved the Law of the Sea Conference from foundering.

In retrospect it seems that especially the struggle for a consensus text may have enhanced the law-creating effects of the Law of the Sea Conference. The fact that the Convention obtained 119 signatures on the opening day demonstrates how widely the Convention has been accepted in the minds and politics of the UN member states. The consensus approach may likewise enhance the possibility of rapid ratifications and accessions to the Convention by a sufficient number of states -- namely 60 -- for its entry into force. It may also facilitate the recognition of main parts of the Convention as general principles of international law, binding for the international community even before the Convention enters into force.

In my respectful opinion the codification of the international law of the sea as it emerges from the Law of the Sea Convention of 1982 does not immobilize or transform the rules of ocean space to an inflexible and static set of rules. It is, of course, a comprehensive code. It may even be a constitution for ocean space.

It is an impressive code that was signed at Jamaica on 10 December 1982, probably the most comprehensive legislative attempt ever made in the annals of international law. The Convention consists of 320 articles divided into 17 main parts (chapters). It also contains nine annexes that, according to Article 318 of the Convention, "form an integral part" thereof.

Article 318 further provides that "a reference to this Convention or to one of its Parts includes a reference to the Annexes relating thereto." Many of the annexes are rather comprehensive and some highly technical.

Together with the Convention four resolutions were adopted:

Resolution I concerning the Establishment of the Preparatory Commission for the International Seabed Authority and for the International Tribunal for the Law of the Sea (the Preparatory Commission resolution).

Resolution II governing Preparatory Investment in Pioneer Activities Relating to Polymetallic Nodules (the PIP resolution).

Resolution III concerning territories whose people have attained full independence or other self-governing status.

Resolution IV relating to national liberation movements.

Especially Resolutions I and II, concerning the Preparatory Commission Resolution and the PIP Resolution, have considerable practical implications for the immediate work ahead of us.

In choosing a comprehensive approach the Law of the Sea Conference has attempted to regulate the political, economic, and legal interests involved. It attempts to meet the environmental challenges of the modern world. It is the first concrete implementation of a new economic world order especially with regard to the riches of the deep ocean floor and its subsoil outside national jurisdiction, the so-called Area. Through this orderly regulation of ocean space the peace-promoting effects of the Convention will be enormous provided states adhere to the Convention and support the regimes established by it.

To a large extent the basic principles of the Convention have been formulated as general norms, "legal standards" which must be applied, rationalized and developed in accordance with the dynamics of the modern international society. As an example reference may be made to the traditional topics pertaining to the law of the sea which are mainly dealt with in Parts I-X of the Convention. However, this does not entail that these issues have been dealt with in a traditional manner. Even in these parts the Convention bears witness to the fact that the Convention entails a progressive development rather than a mere codification of established principles.

Certain basic established principles have of course been retained but shaped and formulated according to the requirements of our modern world. Thus, the Convention is future-oriented at the same time as it builds on time-honoured principles that have demonstrated their validity and timelessness.

Other parts of the Convention are obvious innovations made necessary by the rapid changes and new problems created by the scientific and technological revolution. But there is a growing school of thought, a school to which I cautiously adhere, that many of these innovative principles of the Convention have become or are becoming prevailing principles of international law even though the Convention has not entered into force or for states that prefer to remain outside the Convention. In my respectful opinion many factors are here clearly at work. The fact that representatives with full powers from almost all UN member states met officially year after year in the Conference and worked out compromises in the form of articles is not devoid of legal significance even when the guiding underlying principle is the consensus principle. State practice, based on such minutely formulated principles and draft articles, tends to be uniform and will thus have an inherent capability of creating law in a shorter period of time than otherwise might have been

the case. Such unified activities through the United Nations have also filled a legal vacuum created by the almost rampant technological revolution, a void which needed to be filled for political and legal reasons. And such special lawmaking effects of United Nations activities are peace-preserving to an extent that should not be underestimated.

One element which in this context has been emphasized by Ambassador Nascimento e Sylva in his lecture on "The Influence of Science and Technology on International Law" is that:

> The rapid changes caused in many cases by science and technology [have] had a consequential effect on the definition of custom and one finds that the time factor may be very much shorter and [may have] lost pride of place to the importance of opinio juris [2].

In the judgment of the International Court of Justice in the North Sea Continental Shelf Cases of 20 February 1969 the Court made certain interesting observations along these lines. Thus the Court assumed that a convention may have a law-creating effect

> which has constituted the foundation of, or has generated a rule which, while only conventional or contractual in its origin, has since passed into the general corpus of international law, and is now accepted as such by the opinio juris, so as to have become binding even for countries which have never, and do not, become parties to the Convention [3].

There is no doubt that this process is a perfectly possible one and does from time to time occur; it constitutes indeed one of the recognized methods by which new rules of customary international law may be formed. At the same time this result is not lightly to be regarded as having been attained.

With regard to the time elements involved, the Court further stated:

> With respect to the other elements usually regarded as necessary before a conventional rule can be considered to have become a general rule of international law, it might be that, even without the passage of any considerable period of time, a very widespread and representative participation in the Convention might suffice of itself, provided it included that of States whose interests were specially affected [4].

The Court elaborated this view in paragraph 74 of the judgement as follows:

> Although the passage of only a short period of time is not necessarily, or of itself, a bar to the formation of a new rule of customary international law on the

> basis of what was originally a purely conventional rule, an indispensable requirement would be that within the period in question, short though it might be, State practice, including that of States whose interests are specially affected, should have been both extensive and virtually uniform in the sense of the provisions invoked; and should moreover have occurred in such a way as to show a general recognition that a rule of law or legal obligation is involved [5].

The package deal concept has already been touched upon. The question arises as to what extent this concept is a positive or negative factor in the evaluation of the law-creating effects of the Convention.

On the one hand voices have been raised to the effect that the package deal concept may make it difficult -- even unjustified -- to extract certain chapters or principles from this package and claim that they have become part of general international law while other parts remain non-binding on certain states which remain outside the Convention.

Even so, I venture to suggest that a considerable number of the principles of the Convention have already acquired the force of international law. One reason may be that they merely express established principles of the law of the sea formulated over the centuries. This applies to the great bulk of the articles in Part II dealing with the territorial sea and contigouous zones, Part VII on the high seas, and Part X concerning the right of access of landlocked states and their freedom of transit.

In my respectful opinion the principle of twelve nautical miles as the maximum breadth of the territorial sea may probably be considered to have acquired the force of international law, although the situation has been somewhat complicated by the fact that the Convention was not adopted by consensus.

Some states may still claim that the so-called three-mile limit is the only valid doctrine of international law with regard to the breadth of territorial seas while other coastal states may maintain their claims to territorial seas wider than twelve nautical miles.

I also venture to propose that the twenty-four-mile limit of contiguous zones laid down in Article 33 may be regarded as part of prevailing principles of international law.

The package deal concept may have distinct law-creating effects in so far as a number of articles of the Convention were preliminarily agreed upon on the assumption that certain other compromise formulations were also adopted in regard to aspects closely tied with the first set of rules. Allow me to mention two typical examples:

One major achievement of the UN Law of the Sea Conference is the introduction in Part II and Part IV of the Convention of the concept of archipelagic states. Under the Convention archipelagic states -- that is, states made up of a group or

groups of closely related islands and inter-connected waters -- have sovereign rights over the sea areas enclosed by straight lines drawn between the outermost points of the islands of the archipelago. But their sovereign rights over these archipelagic waters are subjected to the right of "sea-lanes passage." The ships of all other states enjoy the right of passage through archipelagic waters in sea-lanes designated by the archipelagic state. This doctrine of international sea-lanes passage is laid down in Article 53 of the Convention.

Another delicate political and legal issue was the question of the freedom of passage through international straits. This issue became a focal point at several sessions of the Law of the Sea Conference as a direct consequence of the proposal that the territorial sea might extend to a maximum breadth of twelve nautical miles. Certain countries considered this as an extension of the territorial seas as compared to previous doctrines, resulting in the inclusion of a great number of straits in the territorial seas of adjacent coastal states. A new doctrine of so-called "transit passage" was adopted in Article 37 of the Draft Convention in order to meet these concerns. It was a major compromise. The principle of "transit passage" provides that ships and aircraft of all nations are granted transit passage by normal modes of continuous and expeditious passage through the waters of such straits. It is inherent in the notion of transit passage that the states bordering such straits shall not hamper ordinary "transit passage" (Article 44).

These two new concepts are closely connected, respectively, with the concept of archipelagic states and with the adoption of a maximum breath of twelve miles for territorial seas. It would be both politically and legally unrealistic not to accept that the provisions concerning the unhampered passage through these waters have become general principles of international law as a package together with the twelve-mile principle of territorial seas and the archipelagic states concept.

Although it is my respectful opinion that this assumption is correct both in international law and as a political reality, one should, of course, not be unaware of the dangers involved in the situation: Elliot Richardson emphasized these aspects in a paper he presented to the Seventeenth Annual Conference of the Law of the Sea Institute in Oslo in July 1983 as follows:

> Many states ... insist that important provisions of the Convention's navigational package, such as transit passage through straits, represent relatively new elements of international law and are therefore binding only between parties to the Treaty. Based upon this interpretation, non-signatories to the Convention may face unilateral national standards, uneven enforcement procedures, gaps in flag state responsibilities and the possible closure of some straits and sea-lanes for certain types of vessels.

ADDITIONAL OBSERVATIONS ON LAW-CREATING EFFECTS

One of the major innovations of the 1982 Convention is the introduction of the concept of the exclusive economic zone of 200 nautical miles laid down in Part V of the Convention. Within this 200-mile zone the coastal state may exercise sovereign rights for specified functional purposes, namely the exploration, exploitation, conservation, or management of all living and non-living resources. The coastal state may likewise exercise jurisdiction over the establishment and use of artificial islands, installations, and structures, marine scientific research, and the preservation of the marine environment. The exclusive economic zone serves a dual purpose. With regard to living resources it is a fisheries zone with the traditional rights of coastal states but also with the introduction of certain new obligations. As far as non-living resources are concerned the provisions of the economic zone are identical with those applying to the continental shelf. It further provides that the coastal states have sovereign rights for the purpose of exploring and exploiting other resources as well, "such as the production of energy from the water, currents and winds" (Article 56).

The concept of the 200-mile economic zone has gained such worldwide acceptance in the practice of states, jurisprudence, and international law literature that it in all probability today must be considered as forming part of the established principles of international law basically by reason of its general acceptance by the international community. It is one of the most conspicuous examples of how the technological revolution created a legal and political vacuum which was filled by this international law concept in a surprisingly brief period of time.

Chapter VI of the Convention dealing with the continental shelf concept likewise seems to contain interesting illustrations of the law-creating effects of the UN Law of the Sea Conference. In many respects the concept laid down in Part VI corresponds to that laid down in the Geneva Convention on the Continental Shelf of 28 April 1959.

The provisions of this part of the Convention together with the provisions in Part V on exclusive economic zones strengthen the position of the continental shelf concept as an established principle of the modern law of nations, a concept that had already been adopted in state practice worldwide. In addition the provisions contained in Part VI contain some far-reaching innovations. Thus Article 76 paragraph 1 provides for a continental shelf of at least 200 nautical miles seawards whether this area of the seabed and subsoil is "a natural prolongation of its land territory or not." This reference to a 200-mile zone was included to make it clear that also a coastal state with no marked prolongation of its land territory in the form of "a shelf" has continental shelf rights up to 200 miles seawards.

In this respect the 1982 Convention seems to contain certain innovations especially compared to the continental shelf concept as applied by the International Court of Justice in the judgments of 20 February 1969 in the North Sea Continental Shelf Cases. Article 79 of the Law of the Sea Convention provides that the distance criterion of 200 miles has now been established as an alternative to the concept of the natural prolongation of land territory, a criterion which was heavily relied on by the Court in its 1969 judgments. As the 200-mile exclusive economic zone concept in my respectful opinion has attained the force of international law, this new conceptual approach to the continental shelf doctrine has likewise become part of the international law in force.

However, the rather vague criterion in Article 1 of the Geneva Convention of 1959 to the effect that the continental shelf might extend so far seawards as to "where the depth of the superjacent waters admits of the exploration of the natural resources," has not been retained. The weakness of this so-called exploitation criterion seem obvious. In its extreme form it may lead to ever-increasing continental shelf claims with ever-expanding marine technology. Accordingly, Article 76 of the Law of the Sea Convention provides that the outer edge of the continental shelf may extend beyond the 200-nautical-mile limit of the exclusive economic zones. Whether the outer limit of the continental shelf of a coastal state extends beyond this 200-mile zone depends on a rather complicated sediment thickness formula laid down in Article 76. In no event can the continental shelf of a coastal state extend beyond 350 nautical miles from the coast or, alternatively, beyond a line drawn 100 nautical miles from the 2500 meters isobath (water depth). The Convention also provides that part of the benefits derived from exploitation of the shelf beyond 200 miles shall be payable to the International Authority (Article 82).

The provisions in Article 76 paragraph 2 and following on the outer limit of the continental shelf and the provisions of Article 82 on the benefit-sharing of revenues from the continental shelf outside 200 miles were important compromises. They were arrived at in order to obtain, inter alia, the universal recognition of the Law of the Sea Conference on the economic zone concept and of the concept that the continental shelf can extend beyond this 200-mile limit.

Whether these provisions in all their details have acquired the force of international law independent of the entry into force of the Convention is doubtful.

One of the most crucial issues with which coastal states will be faced in the immediate future is the drawing of the line of delimitation between neighboring coastal states with opposite or adjacent coastlines.

These issues have already created considerable tension worldwide. Their implications for peace and stability in various regions of the world should not be underestimated.

It is obvious that whenever maritime zones of coastal states are greatly extended -- be it to a 12-mile territorial

sea, 200-mile economic zone, or a continental shelf extending up to 350 miles or more from the coast -- unsolved delimitation problems must necessarily arise between neighboring states. This is by no means due to ill will or bad faith on the part of the states concerned. It stems from the fact that new vast areas of the adjacent oceans are suddenly subjected to the jurisdiction of coastal states for specific functional purposes. Furthermore, experience shows that the drawing of frontiers between neighboring states has proven to be one of the most difficult -- even most fateful -- tasks in the field of international relations. Another complicating factor is that the elements on which to base the drawing of maritime boundaries become more and more vague and elusive with increasing distance from the shore.

Unfortunately, the criteria laid down in Articles 74 and 83 on the delimitation of the exclusive economic zone and continental shelf between adjacent and opposite coastal states are rather vague and elusive. They provide that:

> The delimitation of the exclusive economic zone (the continental shelf) between states with opposite or adjacent coasts shall be effected by agreement on the basis of international law as referred to in Article 38 of the Statute for the International Court of Justice, in order to achieve an equitable solution.

Whether these criteria are conducive to the furthering of stable international relations in these delicate areas of boundary disputes is questionable. But it proved impossible at the Law of the Sea Conference to agree on more substantive criteria. It seems in my opinion that the provisions of Articles 74 and 83 reflects the vagueness and uncertainties of international law in this field. There have, however, been some encouraging developments recently in this field. Thus Tunisia and Libya brought their dispute with regard to the delimitation of their respective continental shelves before the International Court of Justice which reached its decision in January 1982. A dispute concerning the delimitation of the continental shelf in the Gulf of Maine between Canada and the United States has been brought before the International Court (a chamber thereof), likewise a dispute between Libya and Malta.

In retrospect it was Part XI of the 1982 Convention dealing with the exploitation of polymetallic nodules and other minerals in the deep ocean floor, the so-called Area, which caused and causes the greatest difficulties but which also has resulted in the most epoch-making solutions. These questions were the most controversial issues of the Conference and still are. Even today the discussion for and against the Convention is mostly a discussion for and against Part XI. The system established for the exploitation of these enormous mineral riches is in most respects novel and future-oriented.

Article 136 of the Convention lays down the broad guideline for this Part XI, namely that:

> The Area and its resources are the common heritage of mankind.

This concept reflects future-oriented legal concepts rather than traditional concepts. It is a developing concept borne by the scientific and technological revolution and the ideas of the post-colonial era, although the traditional concept of the freedom of the high seas may be one of its early forebears. But the first significant postwar precedent is the Treaty of 27 January 1967 on Principles Governing the Activities of States in the Exploration and Use of Outer Space including the Moon and Other Celestial Bodies.

Article 1 of the Treaty provides that the exploration and use of outer space including the moon and other celestial bodies

> shall be carried out for the benefit and in the interest of all countries, irrespective of their degree of economic or scientific development and shall be the province of all mankind. (Emphasis added) [6].

The term "province of all mankind" has been used rather than "the common heritage of mankind." In Article 2 the Treaty contained prohibitions against "national appropriation by claim of sovereignty, by means of use or occupation or by any other means."

Furthermore, states parties should carry out activities "in the interest of maintaining international peace and security and promoting international cooperation and understanding" (Article 3). States parties likewise undertake "not to place in orbit around the Earth any object carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies or station such weapons in outer space...."

These questions were further elaborated in the Agreement governing the Activities of States on the Moon and Other Celestial Bodies of 18 December 1979. And for the first time the concept of "the common heritage of mankind" was introduced in a treaty text (Article 11 paragraph 1 thereof) [7].

As far as the Law of the Sea Conference is concerned the Conference through its president, Ambassador Hamilton Shirley Amarasinghe, presented to the Twenty-fifth Session of the General Assembly in 1970 a Declaration of fifteen seabed principles elaborated on the basis of the discussions in the so-called Seabed Committee. These fifteen principles were adopted by the UN General Assembly on 17 December 1970; 108 countries voted for; 14 states abstained. The Declaration established a worthy memorial for the twenty-fifth anniversary of the United Nations Organization in 1970.

These fifteen principles were synthesized from certain basic tenets of international law and international relations. In this crucial area of human relations they obviously filled a void created by the rampant technological revolution. Among the basic tenets of the Declaration were:

Principle 1 which declares that the seabed, ocean floor and the subsoil beyond national jurisdiction and their resources "are the common heritage of mankind."

Principle 2 which provides that no state or person can "appropriate" this area and "no state shall claim or exercise sovereign rights over any party thereof."

Principle 3 which provides that no state or person can "claim, exercise or acquire rights with respect to this area incompatible with the international regime to be established and the principles of this declaration."

Further, Principle 7 provides that the exploration and exploitation of this international area and of its resources "shall be carried out for the benefit of mankind as a whole ... taking into particular consideration the interests and needs of the developing countries."

These main principles have been included in Part XI of the 1982 Law of the Sea Convention.

The 1970 Declaration foresaw the establishment of a new international organization endowed with limited supranational powers. This was one of the main tasks to which the Law of the Sea Conference directed its attention. Accordingly the Convention contains in Part XI detailed provisions concerning such a new organization, the so-called International Authority charged with the task of the administration and management of the natural resources of this common heritage of mankind.

Some of the principles contained in the Resolution are of a legal nature and may, in my opinion, by their very nature be considered as prevailing rules of international law. Others may be of a more political nature expressing the direction that a future-oriented and progressive development of international law and international relations must take in this field in order to meet the requirements of peaceful cooperation and friendly relations between states.

Thus in my opinion the principles laid down in Principles 1, 2, 3, and 7 to the effect that the riches of the deep ocean floor are the common heritage of mankind, that the International Area cannot be subject to appropriation, that no one can claim, acquire or exercise rights in the Area irreconcilable with established international regimes, and finally that activities in the Area shall be carried out for the benefit of mankind as a whole may have acquired the force of international law, although the principles are formulated in a broad and general manner which may make a concrete application hereof difficult.

Part XI of the Convention also contains detailed provisions concerning the International Authority charged with the task of the administration and management of the Area and the natural resources of this common heritage of mankind. It can hardly be conceived how these provisions concerning the establishment of such an international organization endowed with supranational powers can be implemented without express treaty provisions. Thus the organizational provisions of Part XI of the Convention can hardly be implemented without the entry into force of the 1982 Convention.

BRIEF CONCLUSIONS

Allow me to emphasize, in concluding, that it seems impossible in a brief lecture to give an exhaustive review of a Convention as comprehensive and substantial as the Law of the Sea Convention, to dwell in a satisfactory manner on its pros and cons, or to attempt to indicate exhaustively its law-creating effects. However, it may be mentioned that the Convention contains a Part XII on Protection and Preservation of the Marine Environment which lays down general and specific principles concerning marine pollution. These principles may form the basis for the progressive development of international law on pollution for decades in the future. The same observations may obviously be valid for the principles laid down in Part XIII on Marine Scientific Research.

In Part XIV, the Convention provides for development, cooperation and transfer with regard to marine technology and science. It touches upon aspects of the North/South dialogue and is an attempt to contribute to the advancement of a new economic world order in a concrete manner. I respectfully submit that it takes political will rather than legal doctrines to implement these aspects of the Convention.

In attempting to analyze the possible law-creating effects of the Law of the Sea Conference and the Convention of 10 December 1982 I may have laid myself bare to obvious criticism. Has the United Nations acquired some lawmaking functions which are difficult to define, difficult to place among the traditional sources of international law, and which have not been provided for in the UN Charter? The accepted assumption is, of course, that the General Assembly has no lawmaking authority. Is this concept being subtly changed as an inherent characteristic of the United Nations, its very existence and activities?

I don't know the answers. Much may depend on the future tasks entrusted to the Organization, the confidence and trust it enjoys worldwide, and whether it will generally prove its willingness and ability to fulfill the needs and aspirations of a dynamic and explosive international community as <u>the</u> problem-solving international machinery of the world.

NOTES

1. Eulalio do Nascimento e Sylva, "The Influence of Science and Technology on International Law," Gilberto Amado Memorial Lecture delivered in Geneva on 3 June 1983 (UN publication).
2. Ibid, p. 5.
3. <u>Reports of Judgments, Advisory Opinions and Orders, North Sea Continental Shelf Cases, Judgment of 20 February 1969</u>, International Court of Justice, p. 42.

4. Ibid, p. 43
5. Ibid, p. 44
6. Also G.A. Resolution XVIII of 13 December 1963. Declaration of Legal Principles Governing the Actions of States in the Exploration and Use of Outer Space.
7. Bin Cheng, "Current Legal Problems," The Moon Treaty, 1980, pp. 213-237.

CUSTOMARY INTERNATIONAL LAW AFTER THE CONVENTION

John Norton Moore
Center for Oceans Law and Policy
University of Virginia

It is a pleasure to be asked to participate in this superb conference of the Law of the Sea Institute, both because reading a list of participants reads like a "Who's Who in Oceans Law" and for the opportunity to see so many good friends that I last saw during the heady days of the law of the sea negotiations.

This morning, I would like to talk briefly about five points. The first is to clarify the underlying issue of the "customary international law debate" in its broadest context. The second is to briefly discuss the effect of the UNCLOS III treaty and the development of customary international law. Third, to look at the question of what I believe state practice in the common interest ought to be with respect to that issue. Fourth, to look at a series of objections that have been raised to the suggestions that I will make. And finally, to ask the question: where do we go from here in the interest of developing a uniform and good law of the sea that all nations can embrace?

The broadest and most useful question is not what is customary international law after UNCLOS III, but, what is the international law of the sea after the negotiations, both before and after UNCLOS III would enter into force. Second and equally important, what position should states take toward that question in the overall common interest? Now, in answering these questions, the starting point is Article 38 of the Statute of the International Court of Justice which enumerates the principal governing sources of law. These include, with some over-simplification, international conventions establishing rules expressly recognized between the parties, and international custom as evidence of a general practice accepted as law. Applying these principles to the setting prior to the Law of the Sea Convention entering into force gives us the following answers with some over-simplification. First, that the four Geneva Conventions, as supplemented by customary international law -- and, of course, with respect to the parties of such conventions -- continue to be the basic source of international law of the sea. For determining what is customary international law, in supplementing those conventions, and, although controversial to some extent, for making a determination as to whether there is a broad consensus to even alter some of the Convention provisions -- something quite different than customary international law -- we can look both to UNCLOS itself in the text (as would be clear under Article 38 of the Vienna Convention, the so-called "Treaty on Treaties"), and the law of the sea negotiations for evidence of broadly based intent of the parties to alter the multilateral 1958

Geneva conventions. The latter, I should emphasize, remains somewhat controversial. Finally, the signatories have an obligation under Article 18 of the Vienna Convention to refrain from acts that would defeat the objectives and purposes of the Treaty. Now, after the 1982 Convention enters into force -- and again, with some over-simplification -- under usual treaty law and Article 311 of the 1982 Convention itself, it is binding between the parties. If we turn to a setting in which one of the parties to a dispute is a non-party to the Treaty, or both are a non-party to the Treaty, then under Article 34 of the Vienna Convention, the starting horn-book law rule is that the Treaty as such -- that is, qua treaty -- is not binding on non-parties. Moreover, if at least one state is a non-party and the other state is a party, and indeed, both are then parties to the 1958 Convention, then under Article 30 of the Vienna Convention, the previous treaty would govern the relations between the parties as supplemented by customary international law or possibly by evidence of a broad consensus of the parties to alter the previous treaty. And again, under Article 38 of the Vienna Convention, nothing would preclude a treaty such as the 1982 Convention from becoming binding as a customary rule of international law recognized as such. That is, for our non-party and mixed settings, the rules would be the four Geneva Conventions of 1958, as supplemented by customary international law. UNCLOS can be looked to as evidence of that customary international law, and again, with some qualification about an ongoing legal controversy on this point, possibly as an intent, if broadly evidenced during negotiations, to modify the 1958 Conventions. So the first important point to note is that, for an indeterminate and substantial period of time, until the Law of the Sea Treaty enters into force, the signatories and the non-signatories of UNCLOS III are substantially governed by the same law. Even after entry into force the heavy codification parameters of the non-seabed portions of UNCLOS suggest that there will be substantial overlap in governing law between parties and non-parties.

Now, let's look to that second point a little more closely -- at Article 38 of the Vienna Convention with respect to the provisions concerning the impact of the Convention on customary international law. Customary international law is formed as expectations develop that certain state practices are required by international law. Traditionally, we speak of uniformities in state behavior -- that is, a pattern of practice -- supported by perspectives of authority or, classically, opinio juris. More generally, however, we see a process of verbal and non-verbal communication giving rise to expectations within the international community that certain normative principles are to be regarded as authoritative and controlling. No description of that process of communication or the customary international law-making process as applied to oceans law would be complete without noting that for the last seventeen years the UNCLOS process and patterns of practice have been a central feature in the entire customary international law-forming process.

Ambassador Jens Evensen just gave a superb overview of the reasons why UNCLOS III has had a particularly important, pervasive, and in many senses unique impact on the development of law in this area, and I would endorse what he said. I think we might particularly note that the non-seabed portions of the UNCLOS text builds heavily on the existing 1958 Geneva Conventions and existing customary law -- that is, it embodies much codification as well as progressive development of the law. Indeed, the preamble of the UNCLOS Convention makes it clear that it is both codification as well as progressive development. In addition, the supporting patterns of state practices based on the UNCLOS process, not just the UNCLOS text, are overwhelmingly consistent outside the seabed area. Even in areas of progressive development, there has tended to be a close tracking of UNCLOS in the development of state practice. For example, the adoption by sixty-two states of an EEZ, and the U.S. and Soviet EEZ proclamations. Although I would argue that the Soviet proclamation has a few areas that are troubling in terms of consistency with the Convention, I think it is very clear that both the U.S. proclamation and the Soviet proclamation are within the basic parameters of the UNCLOS general negotiation.

Another point is that there was an overwhelming consensus within UNCLOS on the non-seabed portions of the treaty, partly as a result of those consensus procedures that Ambassador Evensen described so well. And finally, let me note one other difference that I think we sometimes overlook. For the non-seabed portion of the text, the issue is not whether non-parties to the Treaty should be held to a provision regarded as binding which they don't accept -- which, by the way, was the issue as posed to the court in the North Sea continental shelf cases -- but the converse of that, in which non-parties may be broadly willing to indicate that in particular areas the Treaty is reflective of customary international law.

Now, the conclusion from the foregoing it seems to me, is that outside the seabed area and possibly the dispute settlement chapter today the UNCLOS text is the best evidence of customary international law absent a pattern of state practice to the contrary. Within the seabed area, however, that is not the case. This is a result of a number of sharp differences. Unlike the non-seabed area, the deep seabed area, as has been noted, can in no sense be codification, but is rather progressive development of the law. In a series of votes and debates on the moratorium principle, major developed nations clearly indicated that they would not be bound in this area until they accepted a specific treaty -- that is, there was to be no customary international law prohibiting deep seabed mining. I regard the resolutions, particularly the moratorium resolutions that sought on behalf of some groups to make the point that a moratorium was customary law, to have effectively made the converse point. General Assembly resolutions outside a fairly narrow area of administrative and budgetary matters are not, per se, binding on the parties even if passed by a larger majority. If the debate indicates clearly and substantially, as

the moratorium debate and vote did, that there is a sharp difference of opinion on the issue, then the answer is clear: there is no customary international law prohibiting mining. However, one need not accept that principle and jump to the opposite conclusion that there is absolutely no customary international law for the common heritage of mankind. I think it is reasonably clear that there is consensus, just to give you one point, that it is illegal for nation-states to extend areas of national jurisdiction into the common heritage area. I think it is equally clear, as Ambassador Orrego indicated, that the specific institutional provisions are not binding, and I would go beyond that and say that the moratorium principle is not a provision of customary international law. That is, it is lawful to proceed in seabed mining until such time as a satisfactory treaty is worked out.

Another point that is quite different in the seabed area is that, unlike the non-seabed area, the present pattern of state practice is clearly split between those such as the Group of 77 supporting the moratorium principle and those adopting reciprocating legislation or, for example, the recent provisional understanding. Admittedly, however, the latter can be interpreted in different ways. Now, with respect to state practice, that point is sharpened because many of those in opposition are precisely the nations most seriously interested in developing deep seabed resources. Under one principle repeated by a number of scholars with respect to the development of customary international law, one takes into account the differential impact on individual players by a customary international law rule and the position of those parties with respect to that rule. In this case, most of those seeking to be engaged in seabed mining are in the camp that do not accept the concept of a moratorium as part of customary international law. In addition, this issue severely split UNCLOS itself. Again, unlike the non-seabed area, the dispute is so severe that it may, unfortunately, even prevent UNCLOS from entry into force. Unlike the non-seabed area, these are new institutions, which either cannot be created by customary international law, or, if they are -- and I would think, in some exceptional cases, they can be -- it happens only after the broadest and clearest of operations and general community acceptance. In addition to that, the language between the UNCLOS seabed and non-seabed portions even supports this distinction, with the seabed Part XI talking frequently of states parties being bound, plus navigational and certain other parts referring, for example, to "all states." And finally, once again, we are on the other side of the North Sea Continental Shelf Case distinction that I made earlier. Here the issue is more difficult -- to hold parties responsible as customary international law because it is a setting in which those parties seek to reject, not accept, provisions of a Convention as binding general customary international law.

The conclusion that I would reach from this is that assertions that the ICJ would hold seabed institutional portions

of the text as customary international law binding on non-parties greatly overstates the uncertainties in this area. Also, seeking to convey a general impression that there is a customary international law of a moratorium today flatly misstates traditional and current customary international law. Certainly, any such finding would do violence to normal international law principles of customary law development.

Now, let's turn to the third point. From an examination of the role of UNCLOS in creating customary international law, let's ask another and perhaps more important question: what should that role be? How should states, participants in this customary international law process, react to the question of what their policies ought to be on this question of customary international law? And remember, let's note in this connection that the formation of customary international law is a dynamic process in which the positions taken by states as to what is customary international law will precisely influence the outcome of that issue. With that in mind, I believe it is in the common interest of all states today to adopt the position that the non-seabed portions of UNCLOS are the best evidence of customary international law absent a pattern of state practice to the contrary, whatever position they adopt on the seabed portions of the text. Reasons supporting this are as follows. First, substantially the same law governs all until the Treaty goes into force, which could be two, five, ten years, or never. Remember, as Ambassador Evensen pointed out, we have about fifteen out of sixty ratifications today; there would be a one-year wait even after the sixty ratifications are obtained. Prior to that time, there is a generally shared sense of what the law is that will be binding on both signatories and non-signatories of this Treaty. I think we sometimes forget that. Second, the non-seabed portions reflect the common interest. In my judgement, the codification and progressive development is virtually instantly accepted by the great bulk of the international community. They should be encouraged. I would also strongly endorse what Ambassador Evensen said on this point, and explicitly add a recommendation that states should adopt a policy to encourage the good codification and progressive development that took place in those non-seabed portions of the text -- and that means all of it in those portions. In addition, the problem of divergent law is as great for parties as for non-parties even in a setting in which the Treaty enters into force. For example, are non-Treaty parties free to set construction standards for vessels operating in the territorial sea? Some spokesmen concentrating on non-parties not receiving the benefits of the Treaty seem not to understand that by the same reasoning they would also not have the burdens. The resulting confusion would be as difficult for parties as for non-parties.

I have now argued that the non-seabed portions of UNCLOS III are the best evidence of customary international law absent a pattern of state practice to the contrary, and, simultaneously and somewhat more controversially, that the UNCLOS negotiating

process is the best evidence of a broadly based intention to modify the 1958 Geneva Conventions. Also, that these provisions ought to be so perceived by all nations in the common interest, and that states should explicitly adopt this position and conform their national behavior to it.

Now, what are some of the objections or alternate approaches to these recommendations? One is an approach we hear commonly presented -- and it is less an objection than an alternate approach. It simply takes an article-by-article definitional determination about whether each particular article of the non-seabed portion is today customary international law. That approach is not wrong; I simply believe that it is not as useful in understanding the impact of UNCLOS within the customary law process as a whole -- again, for the reasons that Ambassador Evensen stated so well, that this impact has been enormous and perhaps unique in the area. And, in addition, it does not clearly focus on the common interest in broad adoption of the non-seabed portions as customary international law; that is, seeking to strengthen the achievement from UNCLOS III where there was broad-based, genuine agreement on crucially important ocean issues.

Now, two other common arguments are clearly objections and, I believe, are fundamentally wrong. They are based on pick-and-choose and trade-off or package deals. Like most confusions, these points get their ability to confuse precisely because, in a sense, they are true. It is certainly the case, under Article 19 of the Vienna Convention, (again the Treaty on Treaties,) that one is not free to pick and choose among the provisions in a convention not permitting reservation. It is also abundantly evident that there was a conception in terms of the treaty qua treaty of a package deal, in fact, many package deals. Once again in terms of the treaty qua treaty, you accept it or you reject it as a whole. There was a trade-off in that sense, and you cannot pick and choose. But it seems to me, the difficulty arises because those arguments which are true in that sense are wrong as applied to the process of customary international law. Let's look first to the pick-and-choose and then the trade-off package deal. What are some of the difficulties? The principal problem is that pick-and-choose for non-signatories confuses the non-reservation rule of Article 19 of Vienna, and the Article 38 rule under the Vienna Convention that, for non-parties, states that particular portions of a treaty can become binding customary international law. The issue is not then whether, as treaty qua treaty, you can pick and choose; the issue is, rather, what portions if any of UNCLOS III are customary international law or -- again, somewhat more controversially -- to what extent do the negotiations, the process, or the text reflect a broadly based intention of the parties to the 1958 Conventions to alter the legally binding obligations of those conventions. In addition, this pick-and-choose approach is wrong because again it is not in the common interest to reject the non-seabed portion of the text as customary international law. This approach seems to assume that UNCLOS is currently in

force, and that it would be no problem for parties to adopt this position in terms of the party/non-party interrelation. Thirdly, it seems to me that this is wrong because it is inconsistent in its own terms. Frequently, the same states that argue that you cannot pick and choose -- that is, argue that the developed nations that have not accepted the seabed portion cannot have the benefits of the non-seabed portion -- simultaneously urge that the developed nations are bound by the seabed portion of the text. And finally, though this is only a problem in context, the recent Bulgarian draft resolution that was not adopted by the Preparatory Commission at its last session -- which embodied a strong pick-and-choose provision -- is also wrong because it assumes that the Preparatory Commission vote would be binding on non-signatories in determining provisions of customary international law under Article 38 of the Vienna Convention.

Let's turn to the trade-off package deal. Again, the starting point is that it confuses the reservation problem under Article 19 with the Article 38 customary international law issue. This is the real issue. In addition, it proves too much because UNCLOS is not solely a text, it is a process. The customary international law development that has taken place during that process has clearly not proceeded on the basis of an overall package deal. If that were so, we could not, today, have 200-mile EEZs that are broadly accepted as customary international law. Development of such 200-mile EEZs clearly has proceeded outside of the "package deal" overall yet is clearly a part if you argue that everything has to be taken or left alone as a whole such as the navigational or other provisions. And finally, the package deal argument exaggerates and oversimplifies any overall trade-off on package deals. It assumes that the trade-off was non-seabed for seabed. That, I think, is only partially the case. I would argue that the principal trade-off was an extension of coastal state resource jurisdiction in return for navigational freedoms and transit passage through, over, and under straits, archipelagic sea-lanes passage, etc. If you look to the travels, for example, of the United States and the Soviet Union prior to the Caracas session, and the package deals that were really negotiated and talked about, they were not primarily the overall package deal of non-seabed/seabed; they were, on some of the most important issues, the extension of resource jurisdiction in return for navigational freedom. That was the focus because, frankly, both sides of that deal were in the common interest of all nations. In addition, there were many other package proposals that were part of the overall package. The question of accepting a twelve-mile territorial sea was integrally linked to the issue of straits transit passage. The question of accepting the archipelago was certainly closely linked to the question of passage through archipelagos. We could go on and on. In short, there were many, many packages that were related in the overall package. Finally, we sometimes hear a uniquely American version of this package approach that focusses on the United States as,

apparently, the bargainer with all the rest of the world in which we are trading off deep seabed mineral interests in return for navigational freedoms. There are a couple of problems with this version. One is that at least by 1973 and the first session of the Law of the Sea Conference every cable that went out of the Department of State emphasized that the United States had to not only achieve transit passage through straits, but also assured access to seabed minerals. I have many scars from the inter-agency process to remember clearly that balance that was in virtually every cable or every discussion or every trip of the United States during that time period.

And finally, the most curious thing about this peculiarly American criticism is that it somehow assumes that in a multilateral convention the United States is able to trade off every one else's interests in deep seabed access in return for not only our own interest in navigational freedom but that of all the other major maritime states. Indeed, a navigational interest in the common interest of all nations. We note that the Soviet Union put in straits articles before the United States did in the 1960s. Now, the real motivation in these pick-and-choose and trade-off arguments -- in their extreme versions -- is to coerce the developed nations, particularly the United States, into accepting the seabed mining provisions without change. This motivation is evident because the argument presents a rather strange paradox in that some of those supporting the treaty the most have been arguing that it has the least effect under international law. It seems to me that if that is the motivation, it is profoundly mistaken for at least three reasons. First, it ignores the strong reasons rooted in the common interest for maximizing the legal effect of the non-seabed portions, as well as posing serious difficulties for parties in their relations with non-parties, even if the Treaty goes into effect, if that view were to be accepted. It severely understates the extent of the domestic opposition to the seabed portions of the LOS text in the United States. In my judgement this is not a partisan issue; I believe that virtually any Democratic or Republican Senate, including that under President Carter, would not have accepted the Law of the Sea Treaty without a renegotiation of seabed mining. I realize that there are other perspectives on that issue; I'll just say that I have not seen anything in terms of Congressional reaction that lends support to a more optimistic view -- and I say that with some awareness of the context, as many others obviously have, of the difficulty of getting any treaty through the United States Senate. It requires an extraordinary two-thirds vote. I've been actively working with the American Bar Association within the last year to get advice and consent for the Genocide Convention which I'm delighted to say was finally reported out of the Senate Foreign Relations Committee last week by a sixteen to zero to one present vote. We are hopeful that this Friday, for the first time in the five times of being reported out from the Senate Foreign Relations Committee, the United States will actually adopt the Genocide Convention in terms of Senate advice

and consent. But that is a relatively simple, easy Convention compared to the 300-plus articles and the enormous controversy involved in writing a comprehensive charter, a constitution if you will, for the basic norms of the ocean. In that setting, you simply cannot afford to go to the United States Senate with major differences on the seabed mining provision.

In addition, it seems to me that this view promotes confrontation and detracts attention from the real issue, which is how do we promote a freely accepted, non-coerced resolution of the current impasse on seabed mining? Let me conclude by just briefly indicating two simple propositions that I believe should guide us. I say this as a supporter of a good law of the sea treaty with respect to trying to get agreement among nations on the principles that will govern all aspects of the oceans.

First, we should recognize that the non-seabed portions of the text -- and this would be something that all nations should accept as their policy -- are the best evidence of customary international law absent a consistent pattern of state practice to the contrary; that is, to give maximum legal effect for the UNCLOS Treaty in that substantial area of agreement. Second, that we -- at an appropriate time of renegotiation of the seabed impasse free from efforts at coercion on all sides -- maintain a clear focus on the desirability of meeting both the serious objections of the developed and prospective mining nations and the newer issues of mining polymetallic sulfides that are not neatly designed into the current system. I will not dwell on the procedures as to how this might be done; I have simply been optimistic all along, perhaps unreasonably so, that there are possibilities if men and women of goodwill want to renegotiate. And I would focus particularly on the procedural possibility under Article 314 of the text that, firstly, enables a technique of negotiation that would limit changes to the seabed mining portion of the text -- which I think would be the only way to go -- and, secondly, in its notion of Council consensus and Assembly two-thirds vote is not all that different from the basic consensus and voting provisions under which UNCLOS itself proceeded. One cannot, of course, be confident that any of this would be possible. It seems to me, however, that it is important to maintain a clear focus on the desirability of that kind of renegotiation. I would be particularly in agreement with Ambassador Orrego's closing comments on that as well as those by Jens Evensen. Thank you.

CONSOLIDATING THE RESULTS OF THE THIRD UN CONFERENCE ON THE LAW OF THE SEA BY PURSUING THE PROCESS OF THE CONFERENCE

Hans-Joachim Kiderlen
Deputy Consul General of the Federal Republic of Germany
San Francisco

After it turned out that the results of the Third UN Conference on the Law of the Sea could not be generally accepted by all, or at least by all of the more important countries, and that the treaty-making process as described in the Vienna Convention on the Law of Treaties had somewhat been stalled, it has been a matter of main concern how to consolidate the outcome of the Conference in a reasonable, acceptable way which takes into account all legitimate interests, pays attention to the legal situation, and keeps the future of the Convention open.

There is, on the one hand -- and has always been since the origins of the Conference -- a widely and strongly felt interest in a renewed certainty and reliability of the general law of the sea. On the other hand, there is the well-known interest in a comprehensive and internationally recognized regime for deep seabed mining. Readiness to accept the UN Convention on the Law of the Sea insofar as regulations of the general law of the sea are concerned has been declared also by those countries which still oppose the Convention as a whole on grounds of the deep seabed regime. The best example for this attitude is the Declaration of the President of the United States of 10 March 1983. The opinions expressed by the Declaration have been criticized as being contrary to the legal situation after the end of the Third UN Conference on the Law of the Sea, but the idea of somehow separating the fate of parts of the Convention dealing with the general law of the sea from the fate of the deep sea bed mining regime has been the approach by far not only of the United States government. This approach seems legitimate, insofar as there is an immediate interest in certainty of law in the fields of navigation, usage of exclusive economic zones, marine scientific research, and protection of the marine environment, whereas there seems to be for the time being not so much immediate interest in deep seabed mining. Furthermore, the conventional regime for the deep seabed still awaits completion.

The legal situation after the end of the Third UN Conference on the Law of the Sea offers simple solutions neither for asserting the validity of the general law of the sea provisions of the Convention as separated from the deep sea-bed regime nor for the right to force this regime or its governing principles previous to the entry into force of the Convention upon countries which do not agree with it.

Arguing in favor of an early application of the general law of the sea regulations -- not only the basic concepts like the twelve-mile territorial sea or the EEZ as such but also for the

checks and balances regulations securing third parties' rights -- cannot seriously be done without reference to the particular characteristics of the Conference. There seems to be a prevailing opinion that the actual stand of the general law of sea, if not taking into account the specific contribution of the Third UN Conference on the Law of the Sea, is at least as unsatisfactory with regard to certainty and reliability of the law as was the situation before the beginning of the Conference. For illustration I refer to Professor Oxman's elaborations before the Seventeenth Conference of the Law of the Sea Institute in Oslo last year [1]. Consequently, also the Declaration by the American President on the Law of the Sea of 10 March 1983 refers to the characteristic procedural instrument of "consensus," the key procedural tool of the Conference, to underpin the opinion that some parts of the results of the Conference have already become international law. There is indeed a fairly widespread opinion, based on the analysis of the work and procedures of the Conference, that the Law of the Sea Conference, having been unique in many respects in the history of international lawmaking, constitutes in itself a specific and essential contribution to the formation of customary international law. Reference should here be made to Professor Jennings' conclusion, "Not only has customary law necessarily been developing during that period [of the Conference], but the existence of the Conference has both contributed to and in no small measure shaped the process" [2].

If it is indeed necessary to take into account the specific procedural contribution of the Conference to the law-making process in order to arrive at some kind of solution of the question of how to consolidate under the present circumstances the results of the Conference in the field of general law of the sea, it has also to be acknowledged that one of the essential new elements in the work of the Conference and its procedures and a constituent part of the consensus approach has been the package deal concept. This concept allowed areas of different interest and content to be linked and thus secured the comprehensiveness of the Conference and of its results. As noted by Professor Jennings [3], it followed from this concept that "even firmly established parts of international law ... were, so to speak, put in jeopardy by the negotiating process, by being made part of it." If that is the case, then not only agreement in one area of regulations has been made dependent upon the acceptance of another, but also an isolated invocation of more or less secured rules of international law may have become more doubtful and questionable in the course of the Conference.

The central question which arises here is whether the package deal approach legitimately survived the end of the Conference, or whether it is permissable, once the Conference is over, to analyze separately the validity of its results. Another more practical and political question is whether it is wise to assert at this stage of the process that the package deal approach lost its impact and significance. Indeed it seems

difficult, after the Conference has ended and before the Convention has entered into force, to argue in the interest of a quick consolidation of certain areas of the Convention on the basis of a consensus achieved at the Conference, ignoring the package deal concept which, at least while the Conference was still working, conditioned all consensuses reached in specific areas. Since the Conference on 30 April 1982 did not end with a final consensus but with a vote, all consensuses reached in certain areas remained unfinished; the whole building of the Conference procedure still is lacking a roof or, more correctly, it got a different roof from what the walls had been built for. Changing to the voting procedure was somewhat a backfall into the classical procedure of international lawmaking as used by the International Law Commission and diplomatic conferences. Now one cannot rely on the positive effects of the new character and procedures of the Conference on the Law of the Sea for securing a certain amount of consolidation in the field of the general law of the sea regulations and on the other hand rely on classical voting procedures for refuting the results of the same Conference in the field of the deep seabed mining regime which was at the basis of the package deal concept. If the Conference inaugurated new ways of international law-making and thus by itself accelerated the process of formation of customary international law, then that must be valid for all the interrelated results of the Conference. On the other hand, if by finally turning back to voting the Conference lost its special innovative character, that must affect all the results of the Conference; and also the argument in favor of the specific law-making effects of the Conference with regard to the general law of the sea somewhat must appear weakened. It is apparently with this in mind that Professor Jennings mentions a possible "loss of authority" of the text of the Convention, when dealing with it turns back to the normal procedures of treaty-making. According to him, this loss of authority would include in particular the "codifactory elements" of the Convention text [4].

In fact there are good reasons to depart, at least for still some while after the formal end of the Conference, from the acknowledgement of a continued impact of the basic principles which directed its work on the current developments. Whereas the provision regulating the general law of the sea, with the important exception of the setting-up of the International Law of the Sea Tribunal, can mostly be applied without awaiting further regulations, operation of the deep seabed regime still depends on complicated ongoing regulatory work of the Preparatory Commission, which <u>de facto</u> holds the negotiating process open and constitutes a continuation of the Conference. Furthermore the main, partly conflicting interests at stake are still essentially the same as at the time of the Conference: the interest of seafaring nations in achieving better certainty and reliability of transit and passage rights, the interest of the industrialized countries in reaching a secure, internationally-recognized legal basis for deep seabed

mining, the interest of developing states to avail themselves of international rights to share in the riches of the Area. It seems obvious that only by respecting content and procedure may widely if not universally accepted results be expected in the near future.

The uniqueness of the Third UN Conference on the Law of the Sea is not a past phenomenon. Since the Conference did not find an end consistent with its directing principles, it should only be regarded as logical if also the post-conference evolution turns out uniquely. In this regard also signature as an instrument on the way of international treaty-making does not go unaffected. The Conference indeed construed signature beyond its rather modest consequences according to Article 18 of the Vienna Convention on the Law of Treaties, as entry condition for full participation in the work of the Preparatory Commission for the International Sea-Bed Authority and for the International Tribunal for the Law of the Sea and for participation in the provisionary regime of Preparatory Investment Protection [5]. The comparatively long delay of two years, ending December 9, set forth for signature underlines the importance the Conference attached to this act. Not only as just a move towards a definitely negotiated treaty, as in Article 18 of the Vienna Convention, the Third UN Conference on the Law of the Sea conceived signature as a formal expression of willingness to continue negotiations on a certain material and formal basis. That in particular applies to the deep seabed regime. For those areas of the Convention where there are no more negotiations necessary, especially for the general law of the sea, signature in the specific meaning of the Conference places the signatory state in a better, in some cases the only, position to argue in matters of interpretation and application of the rules of the law of the sea as contained in the Convention.

There may be a lot of uncertainty persisting with respect to the future process towards a law of the sea based on the UN Convention and to the exact legal nature of signature under the rules set forth by the Conference. However, for the foreseeably long period between signature of the Convention by a large majority of states and its formal entry into force after the necessary number of ratifications have been obtained, and to some extent possibly even afterwards, signature of the Convention provides a legitimate standing in the ongoing law-of-the-sea-making process. That does not mean, of course, that signature of the Convention with regard to the formal procedure of coming into force of the Convention, and after the end of the continued post-Conference process, does mean anything more than set forth in Article 18 of the Vienna Convention. The difference lies with the ongoing lawmaking process as initiated and brought to an only provisionary end by the Third UN Conference on the Law of the Sea.

NOTES

1. Bernard H. Oxman, "Customary International Law in the Absence of Widespread Ratification of the UN Convention on the Law of the Sea," in The 1982 Convention on the Law of the Sea, Proceedings of the Seventeenth Annual Conference of the Law of the Sea Institute, edited by Albert W. Koers and Bernard H. Oxman (Honolulu: The Law of the Sea Institute, 1984) pp. 668-680.
2. Robert Y. Jennings, "What is International Law and How Do We Tell It When We See It?" Lectures delivered to the Graduate Institute of International Studies, Geneva, 1981.
3. Robert Y. Jennings, "Law-making and Package Deal."
4. Robert Y. Jennings, "What is International Law"
5. Resolutions I and II of the Conference.

COMMENTARY

Brian Hoyle
Office of Ocean Law and Policy
U. S. Department of State

If I may paraphrase Sam Ervin, I am not a legal scholar here to tell you great thoughts and to think great thoughts about the law of the sea in the post-Conference period, but merely a civil servant charged with formulating and implementing U.S. policy on the law of the sea during this period. I'd like to share with you some of our experiences.

First, at the expense of being repetitious for a moment, let me reiterate what the basic U. S. policy is. We will not sign and we will not ratify the 1982 Convention. This is, of course, because of the seabeds part of the Convention. The United States will abide by the rules of international law contained in the non-seabeds part of the Convention as reflecting existing international law, both customary and treaty law. My experience in negotiating and consulting in the past two years with over twenty-four countries suggests that this really is the prevailing view in the real world. With but one exception, we have not, in consulting with these twenty-four countries representing virtually the entire cross-section of the world community, encountered one country which has denied that the United States enjoys the rights of straits transit, the right of archipelagic sea lanes transit passage, the right to establish an exclusive economic zone, the right to claim the full extent of the continental margin.

The only country that has challenged us has been the Soviet Union, which has been very vocal about the contractual theory of the Law of the Sea Convention, the so-called "package deal" that you have to buy the whole thing in order to have any rights and you cannot have any rights if you don't. As Professor Moore has pointed out, this is self-defeating and the Soviet Union is surely coming to realize this. In order for a state to have any duties, as reflected in the Convention, one must also have the rights. One of the basic first-year concepts that one learns in contract law is that rights and duties run together. Surely the Soviet Union must realize under its professed theory of the LOS Convention that a straits state that does not ratify the Convention has no obligation to allow the Soviet Union a right of straits transit. This is absurd.

We need a common body of international law of the sea. In the real world states already recognize the 1982 Convention as customary international law. I doubt that there is one state in the world that believes itself to be qualified as an archipelagic state which does not believe that under customary international law it has the right to establish an archipelago. Similarly, not one state we have consulted with which enjoys a right to an archipelago or a right to a twelve-mile territorial sea overlapping a strait has denied that it has the corollary

obligation to allow a right of straits transit or a right of archipelagic sea lanes passage. Similarly, states with a right to an exclusive economic zone believe that they have the right to establish such a zone. Not one state we have consulted with has denied that it also has the obligation to implement those parts of the Law of the Sea Convention applying to the economic zone. This of course does not mean that there weren't some strange statements made in Montego Bay and indeed some strange statements made since then about the content of the economic zone package or the archipelagic package. But the point is that all of those disputes arose from provisions in the text and did not arise on the basis of whether or not states were signatories or non-signatories.

Every contentious issue that we have encountered involving the law of the sea in the last two years has involved the interpretation of the Convention and the application of any particular rule of the Convention. It has not arisen in the context of signatory versus non-signatory nor party versus non-party. The states with whom we have consulted, some of whom intend to sign and ratify the Convention and others who do not, are all in the process of bringing their domestic practice into conformity with the international law of the sea as reflected in the Convention.

The issue of whether or not the Law of the Sea Convention ever enters into force is beginning to lose its relevancy. The point is that the international community is and has adopted a common body of international law of the sea on those parts of the Convention which are evolutionary as opposed to revolutionary. And by that I mean the traditional uses of the ocean: navigation, fisheries, continental shelf oil and gas development, those parts that have recently been introduced but have evolved over time relating to pollution and marine scientific research. The non-law-of-the-sea part of this Convention is being rejected by those states which are most affected by it.

Now if I remember correctly from my international law course, in order for a rule to become customary international law, states must feel that they are obligated to act in accordance with that rule, which must be applied and accepted by those states which are most affected. I would submit that the seabeds part of this Convention has been rejected by those states which are most affected. Three of the nine or ten countries which have the ability to engage in seabed mining have not signed the Convention. Two of the countries that have signed the Convention have stated clearly that unless the Convention is fundamentally changed in Part XI, they will not ratify the Convention. Those countries with the technology and know-how to engage in seabed mining reject the notion that this Convention will be binding on non-parties to the Convention in relation to seabed mining.

The seabed mining part of this Convention is based on the creation of international organizations. It can only be contractual. In order to create an international organization

one has to have a contract. The notion that the common heritage principle, a principle as yet undefined, has already evolved into international law is clearly rejected by the United States and has been consistently since Ambassador Stevenson first spoke in the Seabed Committee. The consistent position of the United States has been that the common heritage can only be defined by a generally accepted international convention. We certainly today do not have a generally accepted international convention. The common heritage principle contained in the Law of the Sea Convention is such part and parcel of the regime established in Part XI that I cannot believe that it could be considered a rule of international law if one attempts to separate it from that regime. There is really no substance outside of the regime and the machinery created in Part XI.

Now one might ask, why is the United States not participating in the Preparatory Commission? The gentleman from the Federal Republic of Germany said that the Preparatory Commission is an ongoing process, a continuation of the Law of the Sea Convention. This is not the position of the United States. To put it very bluntly, we do not believe that the Preparatory Commission is vested with the power to turn a sow's ear into a silk purse, if I may use a proverbial expression. The Preparatory Commission merely has the authority to write the rules and regulations to implement Part XI. As a Preparatory Commission pursuant to a treaty its job, its charge, is to implement the Convention, not to rewrite that Convention.

The United States accepts the idea that it would be very desirable if Part XI could be renegotiated. But now is not the time to do it. The political will does not exist. At such time as the political will exists, I would accept John Moore's proposal immediately. The United States will engage in such a negotiation. But quite frankly, the international community still believes that we will at some point come to heel and accept this Convention as presently written. Such is not the case. Thank you.

COMMENTARY

Jack Garvey
Faculty of Law
University of San Francisco

Thank you, Mr. Chairman. I'm going to address the issue I find still unfocused but implicit in everything that has been said today. It should be noted the declared topic of the panel is the impact of the Law of the Sea Convention as a tool for strengthening the international legal order. The key question, then, is whether the Convention has or has not strengthened the international legal order in a time of serious decomposition of that order.

In one sense, the answer is easy. I'm going to relate this easy answer in terms of an episode which occurred at my home last week. My eight-year old daughter disclosed to my six-year old son that the earth was round. This caused him much consternation. Particularly he was troubled by why people on the other side of the earth didn't fall off. Knowing of course that Dad is a teacher, the children came to me for resolution of the dilemma, at which point I began to engage in a very complicated explanation of the concept of gravity. There was expression of increasing frustration and skepticism on my children's faces. Finally, my six-year old could restrain himself no longer and blurted out, "Well, Daddy, what's the answer? Is the earth flat or round?" At this point my wife interjected to save the day, as she often does. Said she, "You'll have to be patient, children, I'm sure Daddy can teach it either way."

And having listened to our speakers today as their remarks have related to this question of assessment of the value of the Law of the Sea Convention, I'm convinced we can teach it either way. Nevertheless, we can address that fundamental question of evaluation.

Firstly, we should make a pretty clear distinction between our concepts of law as rules and law as process. Our evaluation depends very much upon whether we take a rule-oriented or process-oriented perspective.

Considered as rules, the legal regime prior to the Law of the Sea Convention was surely characterized by a lack of clarity and a lack of authoritativeness. We did not lack rules. There were rules plenty enough. It was simply that the growing ambitions of coastal states, changes of technology, concerns about freedom of navigation and military uses of the sea, created the impetus for a new effort to clarify, refine, and develop applicable principles.

On the plus side of that effort, one can certainly agree with much of what's been said today in that a contribution has been made towards clarity and towards establishing legitimacy for principles of international law and towards contributing an element, a much greater element of predictability, to

international conduct relating to the law of the sea. Certainly of special importance is that distinctive and often original ideas were developed as principles and agreed upon in the context of the Law of the Sea Convention, preeminently the exclusive economic zone, archipelagic baselines and waters, innocent passage of ships, the twelve-mile territorial limit. All of these have achieved new definition, a new degree of consensus, and indeed new reality as international legal principle, perhaps most notably because even the most influential non-party has been willing to subscribe to the new rules as evidenced by the United States' proclamations. In this perspective, one can certainly concur in Professor Moore's statement that UNCLOS III is the best evidence we have today of the law of the sea.

On the other hand, there were left in the Law of the Sea Convention important ambiguities and silences -- disposal of nuclear wastes, military use of the economic zone, rules concerning the Arctic and Antarctic, and so on. So that very important areas which require instruction, which require predictability, which require definition, have yet to be meaningfully addressed by the international community.

Perhaps even more significant, on the negative side of the impact of the Law of the Sea Convention on the development of the international legal order, we have this concept of "consensus," which is a term used rather loosely in discussions about the Law of the Sea Convention. Closely considered, though, it really takes on a character which is quite distinct from "consensus" as traditionally defined as a source of customary international law. It's a distinctive consensus, distinctively weak relative to customary international law traditionally defined as the practice of states. And its weakness is evident in some of the concepts that we've heard most discussed today, the common heritage principle being the outstanding example of a central idea without an agreed center. We have heard very different definitions given to that principle as either a property concept or a trust concept, depending upon which constituency in the debate is speaking. The problem, otherwise stated, is the concept of "negative consensus," which of course is not the same thing as the practice of states. When a chairperson of a committee terminates discussion of a point of principle by saying that it will be adopted unless there is objection, this is a far cry from the kind of affirmative representations of national interest that one finds in the customary development of international law through state practice.

The same weakness is evident in the concept of "package deal." Professor Moore has stated logical arguments about the package deal debate. But I think the really important thing to recognize is that the package deal as well as the "pick and choose" argument have to do with political dynamics of the development of the law of the sea, dynamics that will not simply pass away despite the most compelling arguments about what the deal really was, if any. The "package deal" argument is an

argument that will continue, as well as the "pick and choose" complaint of representatives of the New International Economic Order. Professor Moore did in fact acknowledge the weakness in this developing body of principle by repeatedly employing the phrase "absent practice to the contrary." And indeed there is an irrepressible suspicion as to numerous aspects of the Law of the Sea Convention that these more political than logical problems will persist, demonstrating the Convention's failure to satisfy the essential requirement of binding international law, the adherence of states, especially important states. The problem is not quite "where's the beef." The problem is, "where's the glue that holds the package deal together?" Isn't that the problem, that there is probably not the kind of glue available that binds and makes predictable customary areas of international law?

There is much more reason to see the significance of the Convention as legal process than as legal principle. Notable in this regard is the significance for international law of the Convention's innovative provisions concerning the settlement of disputes, especially in view of the scope, fluidity, flexibility, and binding nature of the dispute settlement procedures. Thus, as to the Sea-bed Authority, whatever side one takes in the debate -- whether the authority is regarded as legitimate international organization or the instrument of a conspiracy against the free market and western democracies under the rubric "New International Economic Order" -- whichever point of view one takes, its significance cannot be denied.

But finally, I think there is an even more important process perspective on the Law of the Sea Convention than its particular procedural and structural formulations. We need to assess and appreciate the process as a whole, what this kind of multilateral Convention represents as a technique and a procedure for the development of international law. Such assessment requires new thinking about the way that the international legal environment has been structured, new thinking perhaps as radical as the shift in the physical sciences that left the Newtonian view an interesting antique. The adjective "unique" has been used repeatedly today. Why? Because we do have here a uniquely multilateral and and extensive treaty-lawmaking effort on a global scale as to a global problem. Certainly national interests were the ongoing dynamic of that process. But there is no question that the Law of the Sea Convention is a symbol and a realization of community values. As such, the Convention process presents for the international community a remarkable opportunity to learn how to organize and process other disputes in areas such as outer space, communications, and nuclear control. The true measure of the impact of the Law of the Sea Convention, I believe, will be our assessment of where it was successful and why was it successful, where it failed and why it failed. The generalization of those insights into useful formats for other subjects, useful organizational principles and procedures, is the most promising task at hand. For my children's question

whether the earth is flat or round, the answer was of course settled by the natural order of things. The impact of the Law of the Sea Convention we ourselves will resolve in the longer term by how well we do in identifying and accomplishing this task of understanding.

COMMENTARY

Rear Admiral Bruce Harlow
Assistant Deputy Judge Advocate General
United States Navy

I'm in agreement with most of what our international guests have told you this morning, but perhaps we differ on a fundamental assessment of the nature of the LOS treaty process. That is, what did the Law of the Sea Treaty achieve and what can it achieve in the future vis-a-vis navigational issues? When we talk in terms of it being a lawmaking document, our thinking can get a bit confused.

My feeling is that, to the extent the treaty deals with an existing pattern of navigational activities, we should not think in terms of its being a document that creates new rights. Generally speaking, it was not intended to create rights to unprecedented navigational activities. Certainly, from my perspective as a representative of a portion of the United States interests, I never viewed the negotiating process as being one which, if not successful, would cause the United States to lose a whole spectrum of existing international rights that it had exercised in the past. I would dare say that no nation participating in the negotiations considered that its existing economic, military, and political rights in the oceans were dependent upon the success of the LOS negotiations.

One has to distinguish between the importance of articulating rights -- that is, clarifying the nature of existing rights -- and the existence of rights themselves. The mere fact that a right has not been articulated does not mean it is nonexistent.

Let me comment on the issue of consensus. One could conclude, and I agree, that the negotiations did proceed on a basis of consensus. From this, one might assume that it proceeded on the basis that there would be an absolute and universal meeting of the minds, provision by provision. This was certainly <u>not</u> the case and indeed was not an expectation that any of the delegations held. I think we would all have to agree that the treaty is not free from ambiguities. It is not completely comprehensive in its coverage, and indeed one can conclude in looking at the negotiating history that nations do not all interpret the articles in a consistent manner. So, when you talk about consensus, I think you have to think of it as a very nebulous concept. Nonetheless, the LOS treaty does offer itself as a potential blueprint for the development of what might be termed a refinement of customary international law through fair and balanced interpretation and implementation of its navigational provisions.

Mention has been made of the "package deal" and certainly from my perspective I would agree that there was the concept of

a "package deal" in connection with the give-and-take at the negotiating table. That's a dynamic of virtually all international negotiations. But I for one never thought that the concept of "package deal" would be shifted into the implementation process when you're dealing in areas that are extraneous as far as their logical application is concerned. There is a logical connection in areas such as the breadth of the territorial sea and its impact on navigational rights through straits. I therefore think it does make sense, in the implementation phase, to think of territorial sea provisions as a package deal. But to hold portions of the treaty hostage to implementation of extraneous provisions would be a tragic mistake. It would preclude breathing life to key portions of the treaty that can form an effective blueprint for present and future maritime activities.

Mention has been made of several nations' non-signature and the question of whether the LOS treaty will come into force. I believe it is a mistake to place too much weight on the issue of non-signature or non-ratification. Indeed it is a mistake to give too much weight to signature or ratification. I believe a nation, if it wants to take an independent or abusive course, can do so as a ratifier of the treaty or as a non-ratifier. My point is that mere ratification or bringing the LOS treaty into force doesn't mean the world has successfully created a meaningful regime. I would dare say that our work really lies ahead of us. As far as the non-seabed portions are concerned, we're faced with the day-to-day problems of how and where we undertake maritime activities. I think the treaty offers promise as a potential blueprint, and the challenge before all of us -- indeed I think that would be the real benefit of a meeting such as this -- is to think in terms of how to best implement and intelligently interpret those provisions dealing with real-world issues, problems, and activities that presently confront the maritime nations and coastal states throughout the world.

Questions have been raised as to what portion of the treaty constitutes customary law, that is, which provisions may reflect customary law, and which do not. In reference to transit passage it would be my position that the treaty does reflect customary law. To suggest otherwise flies in the face of a long-term reality as demonstrated by the practice not only of the United States but other maritime nations as well. If you're talking in terms of a unique articulation, yes, I would agree, "transit passage" has never been used before in an agreement. Nonetheless the fundamental right to navigate through straits does exist in the law independent of the concept of "transit passage." Indeed, one can argue that if you're looking for an existing articulation of a generalized principle applicable to straits in an historic context, one could comfortably, at least I could comfortably, look to the general concept of the "due regard" in connection with high seas rights. I think a

fundamental and indeed brilliant articulation of the balance that nations have historically achieved in the maritime environment is incorporated in the principle that the high seas can only be used with due regard to the rights of others. That principle would serve us well even with regard to navigation through international straits.

CAMERON WATT: I am an historian of contemporary international politics. I address this question both to Mr. Evensen and to John Norton Moore. It starts from the premises that some of the arguments of international law used by people on both sides of the dispute are political rather than legal in nature but they are intended to convince, if not to coerce. And that some of the statements, such as that of Mr. Hoyle, have been interpreted as negotiating positions rather than as immutable principles. And that the consensus which was arrived at on the draft of Part XI on the seabed was arrived at by methods which, so far as the United Kingdom delegation was concerned, involved a certain amount of arm-twisting. It is surprising the degree of bitterness which one can encounter among members of the delegation now that the United States has changed its mind and decided not to go ahead with the draft, which it was largely instrumental in putting into the treaty.

No one is going to challenge the United States on the issues arising out of the treaty, not on grounds of the international legal position but simply because nobody except lunatics like Khaddafi or the Shiites of Iran are going to challenge the United States on an issue of power. But the question to raise with respect to the less powerful but vulnerable non-signatories is: who is going to have jurisdiction over this? If you say that the International Court of Justice or the International Tribunal is going to have jurisdiction, what is your reaction to the experience of the British government in relation not to one, but to four, disputes over the Icelandic government's extension of its jurisdiction over fisheries long before this was a matter of customary international law? My government lost four times in practice. I know that it has been said by a British ambassador that to lose four times argues a little carelessness, paraphrasing Oscar Wilde, but nevertheless that is what happened, and how, perhaps, would Mr. Evensen, remembering his anticolonialist arguments, and Mr. Moore advise governments such as that of Italy or the United Kingdom to proceed?

JENS EVENSEN: I feel that I should not attempt to give the United Kingdom government any advice; it can very well take care of itself. But I would like to refer them to one interesting question which was taken up here. I think it was perhaps the first basic example of whether certain principles of international law existed or not with regard to the oceans, and that was the case which was instituted by the United Kingdom vis-a-vis Norway pertaining to two issues. The first issue was whether Norway was allowed to have a four-mile territorial zone instead of a three-mile territorial zone. The second issue was to what extent Norway could draw straight baselines across fjords and between outlying islands and skerries and measure the four-mile limit from these baselines.

The first issue, that of three versus four miles, was presented by the British, but it was given up and they admitted that perhaps Norway had a right to a four-mile territorial zone. I think that that was the first indication in international law that the three-mile limit was not the sole valid expression of international law with regard to the breadth of the territorial sea, and as such it was very interesting. I feel it will be a marvelous achievement if we can now interpret the Convention to the effect that we have agreed that twelve miles would be the maximum breadth of the territorial sea. That issue is quite difficult because you have many countries that have claimed limits wider than twelve miles. Some of them perhaps agreed to a twelve-mile principle because a 200-mile economic zone was accepted as a corollary to the twelve miles. So this is a very interesting development.

The straight-baselines principle was really hammered out in the decision rendered by the International Court of Justice on 12 December 1951, and it was in itself revolutionary in many respects. It demonstrated to me that perhaps there are certain principles of international law that would not fall under the categories of conventional law, customary law, or general principles of law. Actually the Court here found that the practice of Norway was acceptable as an expression of international law in view of the need to protect, for instance, the local population with regard to the technological revolution in fishing gear and so on, and it accepted the baseline system. It was included more or less verbatim in the 1958 Convention on the Territorial Seas and it came into the present Convention more or less verbatim from that 1958 Convention. So I believe that at least this one case between Norway and United Kingdom has demonstrated the flexibility of international law and the importance that the International Court of Justice paid to certain basic needs of countries, the technological developments, and so on. And I also feel that in view of this practice of the Court and this case we may expect that the Law of the Sea Convention of December, 1982, may play an important role in the Court's further development of questions pertaining to ocean space.

JOHN NORTON MOORE: Because time is limited, I will confine myself to just a couple of general points. Although we normally recognize that there is a struggle for power in the international community, I think it is not always as clearly recognized that in many areas there is an equivalent struggle for law or for authority -- that is, for good law that is in the common interest. Within that ongoing struggle for law, much of which is taking place on law of the sea issues, politicized approaches are adopted from time to time. When are political arguments legitimate and when are they illegitimate? I would say that when we are trying to describe accurately the state of customary international law or the governing international law, politicized arguments have no place. The only way to recognize them one way or the other is in the marketplace of ideas.

Ultimately, it is this audience and every other audience and all state governments in general that will separate the politicized from the non-politicized. In that connection the old saw of the mapmaker is the useful one to apply: if there is a discrepancy between the map and the terrain, it is the terrain that governs. It is, however, perfectly legitimate to make political recommendations about what state behavior ought to be in that struggle for law. I think that is indeed a legitimate and important political component we sometimes forget, and particularly on this customary international law question; it leads me to argue that we ought to regard all of the nonseabed portions of the text as the best evidence of customary international law.

The last point: who decides all of this? The decentralized process of state practice and reciprocities and counter-reciprocities and to some extent, in the occasional case, a decision by a third-party international tribunal. Professors Oxman and Sohn have some important proposals about how we might implement the compulsory third-party dispute settlement provisions of the LOS process more effectively. I hope there will be an opportunity to hear from them on that.

EDUARDO FERRERO COSTA: In the short time I have, I will only address the Geneva Conventions of 1958 mentioned by Professor Moore. He has been saying that the Geneva Conventions, as supplemented by customary international law, are the current status of the law of the sea. My comment is in regard to the validity that the Geneva Conventions may have today. I think that after UNCLOS III and the developments that have occurred since 1970 in the law of the sea, in the practice of states, and in the international system, we should not speak any more of the Geneva Conventions as the basic source of international law. First, if we look at the contents of the current law of the sea, there are differences in everything. There is now an acceptance of twelve miles of territorial sea and of a 24-mile contiguous zone. And, of course, there is a general acceptance of the exclusive economic zone up to the 200 miles that was not even regulated in the Geneva Conventions of 1958. Even with reference to the high seas, there are differences; in the Law of the Sea Convention there are some articles regarding the peaceful uses of the oceans and new regulations for the conservation of the species. In the case of the continental shelf, its definition now is completely different from that of the Geneva Convention, because it goes up to 200 miles. Finally, last but not least, now we have the recognition of the international zone of the seabed declared as the common heritage of mankind. Consequently, no really important issues of the Geneva Conventions are maintained now in the Law of the Sea Convention in the current customary international law.

Also, there are big differences in the process of negotiation and approval of the Geneva Conventions and of the Law of the Sea Convention. On the one hand, in UNCLOS III we had seventeen years of negotiations, six informals, and then the

conferences, with participation by all states of the international society and representatives of some international organizations. On the other hand, at UNCLOS III states' representatives worked with the consensus method and the "package deal" approach.

Many complex and new issues were included and adopted in the Convention in a completely different way than the Geneva Conventions were approved. Therefore, we should not talk of current customary law based on the Geneva Conventions. In fact, the big question to answer now is: what is customary international law and where will we find it? Legal discussion should focus on the content of customary international law and on the new sources of international law. As Ambassador Evenson said, has the United Nations acquired some law-making functions which are different and not regulated in the Charter? Are there or are there not other sources than those mentioned in the Statute of the ICJ? We must take into account the concepts of consensus, the validity of resolutions of international organizations and international meetings, the "package deal" agreements, and things like that.

JOHN NORTON MOORE: I think Professor Costa has given good reasons why it is the best policy and in the common interest to regard the non-seabed portions of UNCLOS as the best evidence of customary international law. I am delighted with that position and quite prepared with him to support it. I talk about the 1958 Conventions because, if we are to accurately and honestly perceive the international law that does apply until the Convention goes into effect or in the complex party/non-party setting, the starting point for parties to them today are those 1958 Conventions. There is the issue of customary international law and also the point I made about the Article 18 obligation for signatories to adhere to the provisions in the UNCLOS text or at least not to take actions that are inconsistent with the object and purpose of the Treaty. So I would hope, indeed would argue, that the extent of development of customary international law that has already taken place would enable us to talk accurately about the Convention as the best evidence of customary international law today.

JON VAN DYKE: The argument that Professor Moore presented this morning was, I think, heavily weighted on the moratorium resolution of 1969; his argument showed a substantial number of nations that were against the idea of a moratorium. If my memory serves me correct, most of those 28 nations that voted against it have now signed the Law of the Sea Treaty. So my question would be: given the development of the Treaty, the signature by a vast majority of nations, including many of those that voted against the moratorium resolution, cannot we say at least that the U.S. position that mining is a high-seas freedom has been rejected, leaving the matter in a state of confusion? I will direct the question to the panel.

JOHN NORTON MOORE: I think the answer is clearly no. You have to start with the assumption that customary international law, to be meaningful, really does require some fairly evident degree of consensus in the international community. You must also take into account the views of the most affected states. Nations that will engage in deep seabed mining are entitled to a somewhat greater weight than, let us say, simply a counting of numbers in the process. I think that is a generally accepted principle of looking at customary international law. If you take that and go back to the moratorium resolution, not just one resolution but the whole history of the moratorium effort, and indeed to an effort to pass a variety of additional moratoria resolutions which were rejected, I think it is quite clear what the positions of the nations were. The other developed nations have in no sense waived their positions on the moratorium resolution by signing the Law of the Sea Convention. They have not indicated by signing the Law of the Sea Convention that they believe that the moratorium resolution has become part of customary international law. So, and particularly for the United States, the United Kingdom, the F.R.G., and a number of other nations that are major players in the process, the premise does not apply. They have not signed the Law of the Sea Treaty, so I think in that respect it is even clearer that this is not in terms of the moratorium a principle of customary international law. But you do not need to go to the opposite extreme and conclude that there is absolutely no content of customary international law in the common heritage principle. I would stand by the sense that it is today customary international law reflected in the position of all states, that even absent a Law of the Sea Treaty, it is illegal for nation states to extend areas of national jurisdiction into the deep seabed area.

JON VAN DYKE: Just a quick follow-up. Customary international law, of course, depends on state practice. Since we have no state practice whatsoever on deep seabed mining, we have really no precedents. What we have is an international community trying to develop norms on the subject over the past fifteen to twenty years and various documents to give us guidance as to what the views of nations are on their obligations. So we had in 1969 a difference of opinion. We then had a long negotiating process leading to a treaty that was accepted and signed by the vast majority of nations. So it would seem to me that at least we have a rejection of the position that this is a freedom of the high seas, leaving us at best with the matter in confusion and without any norm on the subject.

JOHN NORTON MOORE: Just a brief observation, if I might, in response. Customary international law is not solely an issue of state practice, as I think you would concede, but of <u>opinio juris</u> as well. Indeed that is what one looks to on these expressions that you have heavily weighted. But I see (1) the set of clear votes and understandings and statements made on the

moratorium resolution as a process through time; (2) that the deep seabed mining issue effectively upset the consensus and is the problem in the conclusion of the LOS treaty; and (3) a pattern of state practice today that clearly does not reflect consensus on the moratorium principle as part of customary international law. If we accept your assessment that we do have a pattern of confusion, remember that the basic principle of international law is that of the Lotus case, that that which is not prohibited remains a freedom under international law.

BRIAN HOYLE: I would disagree with the statement that there is no state practice on deep seabed mining. There has probably been something on the order of half a billion dollars spent on deep seabed mining to date, up through exploration of mine sites. The only exploration that has taken place by six international consortia and possibly a seventh or eighth has been outside the Law of the Sea Convention. The United States has issued exploration licenses. I do not think we could accept for a moment the notion that some international legislature has prohibited this. The most affected states have all passed deep seabed mining legislation, their nationals have carried out deep seabed mining exploration, and they are all in the process of granting exploration licenses.

BERNARD OXMAN: Several speakers this morning referred to continued negotiation on Part XI, possible amendments, and their relationship to the Preparatory Commission. I have a question for Ambassador Orrego in this regard. First, as Professor Moore pointed out, Article 314 of the Treaty gives the Council and the Assembly of the Authority the power to adopt amendments on deep seabed mining at any time. Second, Resolution I on the Preparatory Commission, paragraph 5(a), states that the Preparatory Commission shall prepare the provisional agenda for the first session of the Assembly and the Council and, as appropriate, make recommendations relating to items thereon. I deduce two conclusions on which I would like Ambassador Orrego to comment. The first is that the Preparatory Commission has the legal authority under the resolution, if it so chooses, to place the issue of amendments on the agenda of the Council and to recommend amendments. The second is that Mr. Hoyle and Mr. Malone [see Luncheon Speech] addressed, I think correctly, what is really the nub of the question: political will. That is my own view, but I would like comments on this. It is premature to discuss amendments to the Convention until further progress is made on drafting the provisional regulations, and only at that time will we have a clearer idea of which precise provisions of Part XI and its annexes are basic impediments to the goal of its practical and universal implementation that cannot be overcome by regulations themselves. I would hope Ambassador Orrego could comment both on the question of the legal power of the Preparatory Commission and on the question of the advisability of discussion.

FRANCISCO ORREGO: On the first point, I tend to agree with Professor Oxman that not only the Preparatory Commission has the power to propose amendments under the terms of Resolution I, but probably any international organization when there is a need for introducing amendments or other approaches to the process as it develops. I think that the drafting history of this Convention proves that very well: at any point where new thoughts might be required in this field, there could be various ways to introduce amendments. One is quite clearly Resolution I; another is the provision of Article 314 of the Convention; and there could still be other ways that one could look into, including, of course, the recourse to implied powers, which are always quite helpful for this matter. I don't really think that initiative for an amendment would be a problem if there is agreement to do that.

This leads, of course, to the second part of the question which is somewhat more complicated. The problem of political will is very much related to what has to be amended. I am quite surprised by the "festival of the pick and choose" that we have heard over the past few hours. Two points well summarize the whole problem. As far as we have heard, what the United States accepts from the Convention is regarded as customary law binding everyone. Conversely, what the United States does not accept from the Convention is regarded as no law at all for anyone. I think that however imperfect international law might be, both assumptions are wrong on two counts. First, because what the U.S. accepts is generally conventional law. It is true that some provisions are part of customary law, particularly with regard to the EEZ and a number of other matters, as it is also true that some other provisions are not part of customary law, and I specifically mentioned the question of straits. On the second count, what the United States does not accept for itself can be part of customary law anyway, at least from the point of view that the law does not always need to have universal acceptability. Although one has to take into account the degree of interest of any given country, that one important country is not part of that acceptance does not mean that it is not law for everyone else in the international community. So from those two counts I think that we have to address the point of the political will that Professor Oxman rightly mentioned.

The provisional regulations worked out during the Preparatory Commission will reveal the kinds of solutions that are being sought for a number of questions. If one country like the United States is entirely absent, how can that side negotiation take place? It could eventually take place through the participation of other countries, as is the case of Germany and Japan, among others. But it would not be the direct kind of negotiation that is being sought. Whether that will be enough to overcome the criticism is uncertain because we don't know what will be the final element of the exercise. I would add one particular aspect which I think is extremely relevant: although there were many instances during the Conference negotiations in which the Group of 77 or individual countries took ideological

stances which made difficulties for the negotiations and the final outcome, it is also true that today one can perceive a much more businesslike atmosphere in the work of the Preparatory Commission and in the approach to the whole problem. Perhaps there are still some ideological elements around, but certainly they are not very much in the actual process of work of the bodies that I have mentioned, but perhaps elsewhere, as we have heard during lunch time.

ROBERT KRUEGER: I just have one comment here and I would hope that the chair is not proscribed from commenting upon this issue: the "package" versus "picking and choosing." I was one of the members of the group, and there are many here, that were in favor of the U.S. continuing the negotiations, of signing the Convention so that we would still have the ability to negotiate and participate in the Prepcom process, even recognizing that the U.S. Senate would probably never ratify the Convention in its present form. That having been said, I do not see that the United States is picking and choosing when it adopts as national policy concepts, arrangements, and regimes that happen to be in the Convention package. The United States and all other countries have been free to contribute to the process of customary international law by beginning practices, by making national proclamations which at the outset are inconsistent with international law. Certainly the Truman Proclamation of 1945, which is the wellspring of the doctrine of the continental shelf and the basic concept of which is set forth in the 1958 Convention and in the Law of the Sea Convention, is a good example of that. The Canadian Arctic Waters Pollution Prevention Act with its 200-mile protection zone inspired a lot of criticism -- I think we even protested -- but that Canadian provision was one of the contributing forces to the emergence of the 200-mile exclusive economic zone. These ideas are not patented, there's no copyright on them, and if it makes sense for a nation to adopt them with or without a Convention, it has every right to do so. Bear in mind this: prior to December of 1982, there were some 85 countries that had adopted one form or another of an exclusive economic zone. I have difficulty seeing how the United States or any nation is estopped to adopt any such doctrine, regardless of how it participated in the Conference and regardless of how the administrations may have changed. If the ideas make sense nationally, internationally, or regionally, there is very good reason, as has been proven time and time again in international law, for them to adopt those concepts.

LOUIS SOHN: I want to add a footnote to what Professor Orrego has said about the question of the United States' having a separate position from other countries. There are really three points rather than two about customary law. We have been talking about two positions: there is customary law if it is adopted by a large majority or there is customary law adopted by unanimity. If somebody objects, there is no customary law. I

think there is a third position. It was first propounded by the International Court of Justice in connection with the Anglo-Norwegian fisheries case. When that rule was proclaimed by the North Sea Convention and accepted by a large group of states, Norway objected to it. Therefore, they said, you cannot impose it on Norway. Nevertheless this rule is applicable to everybody else. Second, it happened again in the Continental Shelf Cases where Germany objected to the delimitation provision and the Court said that provision might be applicable to other states but it is not applicable to Germany. The third was the Peruvian case of asylum in which again the Court said yes, there is a custom on asylum among Latin American countries. But Peru objected to that custom from the first day on. Therefore Peru is not bound. So I would suggest in this particular case that there is a possibility of having general customary law acceptable by all with respect to the non-seabed provisions of the treaty. You can have customary law on seabed provisions accepted by a large group of states, if not almost all, but then you have also a particular law applicable only to the few states which have from the very beginning objected to this rule. So you have really three possible solutions rather than just two that we were discussing this morning.

GEIR ULFSTEIN: I have a question for Professor John Norton Moore, who said that law of the sea provisions on non-seabed activities should be regarded as customary international law unless other things are proved by state practice. But he put this view up against an article-by-article analysis of the Law of the Sea Convention. Is not the view that he contended a question of a burden of proof rule that the Law of the Sea Convention provisions will prevail unless other things are proved by state practice? And must we not then discuss and analyze each subject area, and if this is the case are we not then back to an article-by-article analysis and approach?

JOHN NORTON MOORE: I have not argued that the article-by-article approach is wrong under international law. I think you are quite right. At some point there is a certain inevitability of it, that at some level of analysis -- if, for example, a particular case goes before the International Court or otherwise -- one is going to be looking at the question on an article-by-article basis. I think you have indicated some of the reasons why that ultimately is inescapable. The starting point ought not to be simply a 480-page paper carefully analyzing each article in the law of the sea. But because of the enormous impact of this unique LOS process, negotiating effort, and degree of consensus on non-seabed issues coupled with reasons why states ought to seek to bring into force the non-seabed portions as general customary international law, the starting point ought to be a conscious state policy to view all of the non-seabed portions as best evidence of customary international law absent a pattern of state practice to the contrary.

By the way, I think Professor Sohn's intervention is a very useful one and I endorse it. I think it may well apply to the Venezuelan objection on the boundary delimitation question, for example, though happily we have so many decisions and pending decisions of the ICJ in that area that there is no dearth of customary international law, merely of agreement as to what it is.

ANTHONY SLATYER: We have fourteen member states in the South Pacific. Many of those states have only one significant marine resource, tuna. I have one comment and one question. Judge Harlow, if I heard him correctly, suggested that the Conference on the Law of the Sea had not developed any rights but was more or less a mutual disciplining exercise for the world. I think he must have meant those remarks to be in the context of navigation freedoms and the like. Rights have surely crystallized from that Conference, especially the right to regulate the activities of other states within 200 miles of one's coast.

The question is for the distinguished ambassadors, and Mr. Hoyle may wish to comment. The feeling this morning from your talks was that the world now recognizes rights and duties flowing from most parts of the Convention on the Law of the Sea and in particular that part establishing the exclusive economic zone. Mr. Hoyle seemed to agree with that but commented that there still remained to be solved some interpretive problems. Of course, there is a gray area between "interpretive" and "substantial." What rights from customary international law may be claimed by a state which chooses to interpret some of the provisions central to the exclusive economic zone concept in a way that would deny to other states the rights to almost everything they could gain from the application of those exclusive economic zone principles? We have one state in the world which has sought to implement some aspects of the Convention on the Law of the Sea under the guise of customary international law but has a qualification to its position with regard to highly migratory species of fish which greatly prejudices the opportunities of some other states in the world to maximize their opportunities under those principles.

JENS EVENSEN: The coastal states that avail themselves of the rights would also have to accept the obligations following from the chapter on the economic zones. If they, contrary to these provisions, fail to meet these obligations -- for instance, the obligation to give the surplus to other states -- they would violate international law and we would have to resort to the peaceful settlement procedures provided in the Charter.

FRANCISCO ORREGO: I think that the Convention has to be taken as it is, and no country can make interpretations which will, in the implementation phase, change the real meaning of the Convention. In the example you have mentioned, if the interpretation of the Convention is contrary in practice to what

the Convention says, it would not be quite a lawful interpretation. Secretary Malone made an interesting statement during lunchtime about one exception to the implementation of the Convention, from the point of view of the customary law which the United States accepts, and that exception is the case of tuna. There is a conflictive interpretation on the part of one country and a number of other countries in the South Pacific in terms of either conventional or customary law depending on their situations.

BRIAN HOYLE: I think Mr. Slatyer's question involved Article 64 of the Convention. Both the United States and the South Pacific countries were able to to agree to Article 64 in the Convention because we were both able to walk away and say that Article 64 said what we wanted it to mean. The difference between the United States and those countries through whose EEZs tuna migrate is well known, and to us there is a sound scientific reason why coastal states should not have exclusive management rights over tuna. I don't need to reiterate all of that here, but I think it does point out that an article-by-article analysis of this Convention on whether or not a particular provision represents customary international law is likely to blow the Convention right out of the water. It is likely to open up old issues which were resolved by latent or patent ambiguities in particular articles, because before you can decide whether or not they represent customary international law you will have to interpret what they mean.

BRUCE HARLOW: I did have one comment. Ambassador Orrego keeps getting my attention by asserting that transit passage is not in his view a right under customary international law. I would ask him, if that is the case, what in his view <u>is</u> the customary law of navigation in straits? Is it your position that it is simply the normal articulation of innocent passage applicable to territorial seas generally? Is that your view of the status of customary international law?

FRANCISCO ORREGO: Whatever those rules were, and there is a considerable degree of discussion ongoing about that, it was quite clear in terms of the right of innocent passage through the territorial sea and eventually some of the other elements that emerged from the <u>Corfu</u> case.

A different proposition is: which is the exact regime applicable to that actual transit? The Convention has defined a regime called "transit passage" and its associated issues, but it exists exclusively in terms of the Conventional definition and is therefore applicable for those countries that are parties to that particular set of arrangements. It has not become as yet a part of customary law. It could eventually become so in the future; that is a third issue which is also entirely different. The right of overflight, for example, has never been a part of the principle of freedom of passage through international straits. That right came up in the Convention and

became part of the Conventional regime. It is very doubtful, and I would certainly not be able to support the proposition, that that particular right has already become part of customary law. Eventually it might be so in the future; that is still to be seen. But the consistency of state practice, whatever that is, relates to the principle and the rules as they were embodied in customary law before this particular regime was defined. What has now been defined is a separate exercise and has to follow a separate path until in its turn it might become established.

BRUCE HARLOW: That raises a fundamental point that I would like to comment upon. There seems to be an assumption that rules that are logically applicable to, say, a three-mile territorial sea ipso facto carry over into a twelve-mile or other breadth of territorial sea. I think that if you look at the basis of the territorial sea itself, the whole concept, you will agree that it balances the interests of the maritime community against the legitimate interests of coastal states. The rationale was that there should not be an unreasonable encroachment upon maritime activities and, at the same time, there should not be an unreasonable encroachment upon coastal state interests, including security interests. Therefore, it is a mistake to argue that if a nation claims a broader territorial sea that has a significant impact on the balance between maritime interests and coastal state interests, ipso facto the old rules applicable to historic territorial seas should still be viewed as part of the contemporary body of customary international law. To the contrary, if you look back to the genesis of the whole principle, I would argue that you have to re-examine what jurisdictional baggage should go along with any assertion other than the historic three-mile territorial sea claim, depending on the nature of its impact upon the maritime community. A twelve-mile territorial sea claim, of course, results in the overlapping of many international straits and thus has a significant if not overwhelming impact on the maritime community. To argue that customary law today is one of innocent passage in such straits flies in the face of the basic logic of the historic territorial-sea concept and upsets the balance that customary law has historically attempted to achieve. Such a position also flies in the face of state practice, regardless of what principle underlies the practice. Whether it is our view that those corridors are high seas or otherwise, the truth of the matter is: state practice as far as navigation in international straits is concerned is not the same, and has not been the same for several decades, as it is in territorial seas generally. That is an established fact. These practices underlie what I would view as compelling evidence of the existing customary law of international straits. The fact is, they are treated separately and differently from territorial seas generally. Why? Because the geographical phenomenon is such that ships or aircraft have no choice but to navigate to within twelve miles when they are in certain international

straits. In most other areas they can conveniently navigate beyond claimed territorial seas. So I would argue that if you look at the fundamental principles underlying what we call the regime of territorial sea and the breadth and the balance of coastal and maritime interests, and you look at the state practice, it is accurate to say that customary law reflects very closely what is characterized in the treaty as "transit passage." Of course "transit passage" is a word of art that is unique to the treaty; there was no need in the past to articulate transit passage rights because, in the U.S. view, there was a high-seas corridor through key international straits. If we are to accept a twelve-mile territorial sea, obviously such a right should be articulated or, at least, understood to exist. "Transit passage" has existed, not as a word of art but as an unarticulated principle that is reflective of not only the United States' maritime practice but also that of other maritime nations.

PETER BRUECKNER: I am the head of the Danish delegation to the Prepcom. I have a question for John Norton Moore. I am interested in his two conclusions, which I support. In particular, his recommendation that we should maintain the focus on the renegotiation of Part XI was interesting. In another context Professor Moore has mentioned Article 314 as a mechanism for accommodating changes. However, my question is: what would happen in the meantime? During your speech you said that it was lawful to go on seabed mining as long as there were no generally acceptable rules in existence. If we relate this observation to the remarks of Brian Hoyle and James Malone, my question is, on what legal basis could seabed mining take place? Would it be the freedom of the high seas? How would you reconcile seabed mining with the traditional freedom of the high seas? I could reverse the question by asking: in your view, would the United States be willing to allow others to avail themselves of the freedom of the high seas to mine the same area as the U.S. consortia? Or is the freedom of the high seas principle, which in itself is a customary law principle, embodied in the Geneva Convention and adopted by the U.N. Convention, subject to an evolution of customary law? To what extent, in your view and in a general U.S. perspective, would the freedom of the high seas be mitigated or modified by the principle or the concept of common heritage of mankind? As I understood you, and as I have understood the U.S. position, the concept as such is not rejected. There are certain elements in it which the U.S. accepts, as also reflected in your speech. How would you envisage that seabed mining activities could take place until we have found a generally accepted Conventional regime? Would it not it be in the U.S. interest to avoid a continued divergence of views and rather to insure that the U.S. position is not on a collision course with the position adopted by the signatories of the Convention? In other words, wouldn't it be in the U.S. interest that seabed mining activities envisaged under U.S. law would not prejudge or jeopardize the outcome of negotiations at a later stage?

JOHN NORTON MOORE: I think those are very thoughtful questions indeed. First, let me emphasize that I am not a spokesman for the United States. Brian Hoyle is, and so I would certainly defer to him in presenting the United States position. Second, I would like to stress the point -- and I very strongly welcomed the opinion of our two distinguished ambassadors on this -- that in my judgment the long-term solution to this problem is indeed the renegotiation that you spoke of. I personally believe Article 314 offers the best hope for that, and I would anticipate some kind of package negotiation with the full support and knowledge of Conference leadership after an appropriate initiative, let us say, might be taken by a number of states pursuant to that. I think that Professor Oxman's question is a very interesting one in terms of the appropriate timing of that issue. On the specific question you asked, however, as to what happens in the meantime, (1) I think it is essential for the West to maintain its legal position, and (2) as a scholarly observer I would predict that United States or the present Senate would have no other position but to maintain the principle that there is no moratorium as a matter of customary international law. That is a good principle of customary international law that I would be prepared to defend either before the ICJ or in any other setting. Indeed, I think the burden for the opposite view would require some rather strained arguments to make the case that General Assembly resolutions in general are binding, that treaties in general are binding on you /[qua/] treaty whether or not you have signed them, that customary international law develops in an area where major state practice is counter to the claim, etc. So I believe that it is inevitable, until such time as an appropriate renegotiation can take place, that there will be no moratorium principle just as there was no moratorium principle accepted by the developed nations at any time during the course of the negotiation itself. Now there is one interesting legal issue in customary international law here that in candor I will put on the table because I think your questions suggest it. I have the answer that satisfies me, but I'm not sure that all would agree with it. The question is: how can you assert particular claims that would not be interfering with the claims of others under high seas principles? I think high seas principles are the legal basis; I think you're correct. There are two ways to make that consistent: (1) I am persuaded it is a reasonable use of a particular area if seabed mining requires site specificity, as it does, and there are a large number of sites, as there are; and (2) that it is a reasonable use of the high seas to assert a site-specific claim, though it would be completely inconsistent to go beyond that and make some permanent kind of claim over the resources of the Area.

The second way to accommodate this, which I gather is the one that the Administration has really embarked upon, is to work out limited multilateral and bilateral arrangements that in fact eliminate any site overlaps. This has been effectively done

with every single potential seabed miner at the present with the exception of the potential Soviet claims on the LOS tract itself.

ROBERT KRUEGER: One point should be made as a qualifier on that exposition. If the Convention came into force, you could, notwithstanding these bilaterals on this reasonable use of the seabed requiring sites-specific, set up a mechanism whereby a third country (even one of those without the technology to develop it) could file on the same site-specific block confirmed by multilateral or bilateral arrangements. You would then have a situation in which format for dispute resolution format would not be in place unless one were negotiated. Is there any closing comment by any commentator or speaker? If not, I would like to thank you all for being here. It has been very interesting.

LUNCHEON SPEECH

INTRODUCTORY REMARKS

Robert B. Krueger
Finley, Kumble, Wagner, Heine, Underberg. Manley & Casey
Los Angeles

We are pleased to have with us today Ambassador James Malone, the Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs in the Department of State. Beginning in 1981, Ambassador Malone was the Special Representative of the President to the UN Law of the Sea Conference and the Chairman of the U.S. delegation. He was formerly the General Counsel to the Arms Control and Disarmament Agency and, before that, the Dean of the Law School at Willamette College. He graduated from Stanford Law School.

FREEDOM AND OPPORTUNITY: THE FOUNDATION FOR A DYNAMIC NATIONAL OCEANS POLICY

James L. Malone
Assistant Secretary of State for
Oceans and International Environmental and Scientific Affairs
U.S. Department of State

It is a pleasure to be with you today to discuss the official position of the United States on the Law of the Sea as well as our view of the future of oceans law and policy. Our position with regard to the UN Convention, as you know, is settled and, I believe, is a very sound one, based on long recognized principles of international law and upon a deep conviction of our responsibility to promote and protect America's vital interests. And, I must say, our vision of the future is a very positive one. In essence, it is a vision of freedom, and of all that freedom both demands and offers. It is a vision of order, of stability, of opportunity, and of prosperity -- not only for Americans but for all people who share these goals and who would commit themselves enthusiastically to their pursuit. For that vision -- and the policy in which it is embodied -- reflects the very ideals and principles that built America and that are the key to true economic growth for all countries -- developing and developed alike.

THE POSITION OF THE UNITED STATES ON THE LAW OF THE SEA CONVENTION

Perhaps, however, before discussing both the conception and implementation of our national oceans policy it would be helpful -- without dwelling on affairs long-since settled and explained -- to glance briefly at the past.

As you know only too well, over the past decade we, as a nation, have gone through a period of intense soul-searching and agonizing debate over the role America should play in multilateral efforts to build consensus and reach universal agreement on a comprehensive Law of the Sea Treaty: what national interests were to be recognized and given priority, what were the means by which we would best be able to protect those interests either within the framework of such a Convention or in its wake.

It was not an easy period for us by any means, but we have now emerged from it with what I strongly believe is a highly-disciplined and widely-respected position. We have a firm sense of where we are headed. We have identified and enunciated clearly for all the world our own national priorities and have made equally clear our responsibility to stand by them. At the same time we have expressed our willingness to cooperate with other nations in all ocean related activities of mutual benefit. I believe that our sincerity in this is recognized, our determination is admired, and our leadership appreciated.

This was not the case prior to 1981. When Ronald Reagan assumed the presidency in January of that year, the United States was on the verge of accepting a treaty which presented a serious threat to its own security, economic, and political interests. The treaty's provisions establishing a deep seabed mining regime were intentionally designed to promote a new world order -- a form of global collectivism known as the New International Economic Order (NIEO) -- which seeks ultimately the redistribution of the world's wealth through coercive organizational means. Those provisions were predicated on a distorted interpretation of the noble concept of the earth's vast oceans as the "common heritage of mankind." Rather than recognizing the seas as belonging to no nation or individual but open to those willing to take the risk and invest the labor necessary to derive benefit from the abundant resources they contain, many countries sought instead to build a regime upon the assumption that every nation shares ownership of the oceans as an undivided property interest. Claiming for themselves the right to be the primary beneficiaries of the seabed regime so constructed, they asserted that each is entitled automatically to a proportionate share of the profit gained by those whose efforts produce wealth from what would otherwise be economically valueless. To enforce that claimed right, they built into the treaty a regulatory vehicle which permits them to exert virtually unrestrained control over all future deep seabed mining operations.

It has been suggested that the United States agreed to the basic common heritage "principle" during the early stages of the Conference and that the Reagan Administration reneged on that agreement. In fact, the actual position of all U.S. administrations involved in UNCLOS III remained consistent on this issue. While the United States agreed in general on the merit of the concept of a common heritage, it steadfastly maintained that such a concept had not become a legal principle and could not become one until developed and clearly defined as part of a generally accepted Law of the Sea Convention. That convention, having received to date only twelve of the sixty ratifications needed to enter into force, has not been so accepted. Indeed, the United States and other key industrial states have not signed and do not accept the treaty nor does the United States accept the interpretation of the common heritage concept that it reflects.

President Reagan correctly viewed the deep seabed mining provisions in the LOS Convention as inimical to our national interests and was unwilling to compromise those interests for the sake of world or domestic public opinion. He could not consent to American participation in a regime structured with an inherent bias against the interests of the United States and its allies, a regime which denied fundamental principles of political liberty, private property, and free enterprise.

Particularly offensive among the articles in Part XI of the Draft Convention were provisions that:

- would enable a future "review conference" to adopt key changes to the treaty over the objection of member states, thus denying to the U.S. Senate its constitutionally mandated role in the treaty process;
- would intentionally deter rather than promote economic development with the establishment of an ostensible "parallel system" that would, if implemented, discriminate against private operations, thereby restricting U.S. access to minerals of strategic importance;
- would create a bias against the production of mineral resources as set forth in Article 150 of the Convention;
- would impose unconscionable financial and regulatory burdens on American industry and government, requiring, by the best estimates of U.S. government officials, a potential liability for the United States of $1 billion in direct costs and loan guarantees for both initial expenses and continuing operations of the "Enterprise" and the "International Sea-bed Authority" itself;
- would effectively enjoin the mandatory transfer of private and possibly sensitive technology to an international seabed authority dominated by countries often unsympathetic to U.S. interests as the price of its use in private mining operations; and
- would establish a potential source of funding for the terrorist activities of national liberation organizations.

Nevertheless, the President remained committed to efforts to correct such flaws through the multilateral negotiating process and, in complete good faith, pursued such efforts with vigor and imagination, throughout the final sessions of UNCLOS III in 1981 and 1982. Unfortunately, the Conference proved incapable of accommodation in any of the six basic areas just identified as critical to the United States. Serious compromise proved impossible. Intransigence prompted to a significant degree by a pervasive view of the Convention as a means to promote the NIEO, was adeptly exploited by some in an effort to consolidate their influence with the "non-aligned nations" and to isolate further the United States and its allies within the "world community." This rendered the Conference essentially incapable of reaching consensus. This, of course, has not been peculiar to UNCLOS III. Similar ideological confrontations have disrupted many other multilateral negotiations and rendered various technical agencies of the United Nations impotent.

Ultimately, the United States was left with no acceptable alternative but to vote against adoption of the treaty. Subsequently, on 9 July 1982 after a further searching review, President Reagan announced his decision to refuse to sign the treaty, expressing his intention to put behind us a decade of well-intentioned but often less than fruitful negotiations and turn America's vision again to the future.

Recognizing that the peaceful uses of the world's oceans and the management and conservation of marine resources remain a matter of fundamental concern -- as well as a potential source of boundless opportunity -- to all maritime states, President Reagan set forth on 10 March 1983 the principles upon which the United States would base its future oceans policy and, consistent with those principles and the rule of law, proclaimed the establishment of a 200 nautical mile exclusive economic zone (EEZ).

In order to fully grasp and appreciate that policy, however, a key principle underlying it -- namely, that the non-seabed sections of the treaty reflect customary law in distinction to those prescribing the mining regime -- must be understood.

Of paramount importance in assigning the proper meaning to the various sections of the LOS Convention is the need to recognize that unlike all former oceans-related Conventions, UNCLOS III does two things: it codifies existing law and prescribes new law. The attempt was made to both set out present and developing law in familiar areas in light of circumstances since 1958 as well as to provide new regimes for unregulated activities. Navigation rights, as seen in the very wording of the LOS Convention articles on navigation, were frequently drawn from the 1958 Geneva Conventions on the Territorial Sea and Contiguous Zone and that on the High Seas, which embodied customary law as it had developed to that time. As such it is void of merit to argue that only parties to the LOS Convention enjoy customary international legal rights of long-standing status. Similarly, it is without legal foundation to maintain, on the basis of the so-called contractual theory, that the Convention is a package, and that for a non-party all rights are lost if a state does not become a party to it. Absent a peremptory norm to the contrary, customary rights of sovereign states remain inviolate and cannot otherwise be denied. I do not subscribe to the views of critics of the U.S. position who accuse non-signatories of "picking and choosing" among sections of the Convention. The "package deal" concept was, it must be remembered, nothing more than a procedural device, based on a December 1973 "Gentleman's Agreement" and designed to further the achievement of consensus. As such, the concept died upon the conclusion of the LOS negotiations. It has no continuing merit whatever.

States certainly are free to continue to apply customary international law and ignore de novo prescriptive provisions which have neither been tried nor admitted by wide practice to be a source of recognized international law.

It is the position of the United States then that, despite its shortcomings, the Law of the Sea Convention does reflect a successful effort to articulate and codify existing rules of maritime law and actual state practice with respect to the

traditional uses of the oceans such as navigation and overflight. Indeed, the United States believes that most of the provisions of the Treaty, apart from the seabed mining text in Part XI, fairly balance the interests of all states and are fully consistent with norms of customary international law. Hence, it is prepared to accept and act in accordance with these provisions on a reciprocal basis.

But, since the seabed mining portions of the Convention establish wholly new law and new obligations, which are contractual in nature and not part of customary international law, the provisions will be binding only on parties to the Convention, and then, only when and if it enters into force. The provisions in Part XI of the Convention are predicated on the establishment of a new international organization, the International Sea-bed Authority, and on the acceptance by parties of that organization's jurisdiction and of their own obligation to act in accordance with its mandates. Such obligations must be willingly assumed by states and cannot be thrust upon them. The United States does not and will not accept them and is not bound by them.

In non-seabed areas, however, as I have said, the United States does recognize the existence of an international law of the sea entirely independent of -- though reflected in -- the Law of the Sea Convention and based upon accepted principles of customary international law. The United States will continue to honor those principles and will assert its rights consistent with those principles on a global basis.

In essence, all this is the legal foundation for the national oceans policy announced by President Reagan on 10 March 1983. The United States will recognize the legitimate rights of all coastal and maritime states and will expect that its own rights and those of other states are recognized in return. In his statement, the President stressed the importance of the traditional rights of navigation and overflight to the United States. Unimpeded commercial and military navigation and aviation are crucial to our national security and economic interests. The right of transit through straits and archipelagic sea lanes, freedom of the "high seas" within and beyond coastal state exclusive economic zone (EEZ) jurisdiction, and the right of innocent passage within territorial seas must be protected and will be respected by the United States within its own jurisdiction.

The importance of the rule of law to the regulation of peaceful uses of the oceans is critical and the United States will further those acceptable provisions of the Convention which are based on customary law as consistently as possible in order to assure other states of U.S. intentions and in order to promote certainty and stability. As a major maritime power and large coastal state the United States is in a preeminent position to do so.

At the same time we have sought to address the difficulties and dangers that the unsettled future of the LOS Convention imposes. After almost two years since the Convention was opened

for signature only 20 percent of the ratifications requisite to the entry into force have occurred. Consequently, global reliance on the Convention as a conventional source of law within the meaning of Article 38(1)(a) of the Statute of the ICJ is uncertain at best. The Convention may not enter into force for many years -- perhaps a decade -- or, just as likely, not at all. Given the rapid rate of change in ocean law, much will happen in the coming ten years which could render many sections of the Convention obsolete. Responsible states must, therefore, in the interim comply with and promote the customary law it embodies. Fortunately, this has already proven to be the case.

A perfect example of such practice is the almost universal acceptance of the EEZ as customary law. With enactment of EEZ legislation by sixty coastal states and the acceptance of these zones by user states as evidenced by bilateral agreements -- such as governing international fisheries agreements -- it is clear that the EEZ, a concept which had not existed prior to the LOS Conference negotiations, derives its contemporary validity from state practice and not the Convention, as the latter is not in force.

Similarly, state practice applies to navigational freedoms. The tortuous negotiating history associated with the Convention's EEZ provisions reflected in no small measure a balancing of coastal state and navigational interests. I find it telling that state EEZ practice has resulted in very few encroachments on traditional navigational freedoms, notwithstanding earlier approaches, such as 200-mile territorial and patrimonial seas in which freedom of navigation was denied. In the most vital navigational areas, straits used for international navigation, there has to my knowledge been no incident in which a straits riparian state has denied or restricted passage of U.S. vessels in any way inconsistent with the straits transit passage regime.

In furtherance of the President's March 10 statement, the United States Navy has and shall continue to exercise these navigational rights and freedoms globally. In those instances in which coastal state claims are inconsistent with customary law, exercises are openly carried out. If a coastal state protests, the United States by reply note stipulates the navigational right or freedom involved, the manner in which it has been circumscribed, and the U.S. resolve to continue to exercise such rights and freedoms. Two recurring areas subject to challenge have been: first, requirements of advance notification to or receipt of advance permission from a coastal state as a prerequisite to the exercise of the right of innocent passage by warships through the territorial sea; and second, claims to historic bays. It is imperative that this program be executed regularly in order to prevent arguments of acquiescence or prescription.

Such challenges are, however, by far the exception rather than the rule. Our negotiations with select archipelagic states which are in the process of drafting archipelagic state legislation are gratifying -- in no instance has there been any

indication of inconsistencies with the archipelagic states' transit passage articles of the Convention. As in the case of EEZ navigational practice, here also there is abundant evidence of good faith application of applicable LOS Convention provisions pending its uncertain entry into force.

United States policy in the area of international law and the orderly regulation of the traditional uses of the oceans is firmly established. But our policy is built as well upon a recognition of the opportunities to wisely utilize the resources of the oceans both within and beyond the EEZ, and a commitment to pursue those opportunities energetically in a manner which realistically promotes economic development.

Recognizing this, the U.S. is conducting a deep seabed mining policy pursuant to statutory authority and presidential directive. In accordance with Section 118 of the Deep Seabed Hard Mineral Resources Act of 1980, the president is authorized to negotiate agreements with foreign nations necessary to achieve reciprocal recognition of deep seabed mining licenses and permits, priorities of rights for applications for commercial recovery licenses, and prohibition of activities which conflict with licenses or permits already issued. The President's March 1983 Oceans Policy Statement directed efforts to work with "like-minded" countries to develop a framework, free of unnecessary political and economic restraints, for exploration and exploitation of the deep seabeds when conditions warrant.

Accordingly the United States has concluded two significant agreements. The first agreement, an "Agreement Concerning Interim Arrangements Relating to Polymetallic Nodules of the Deep Seabed," signed on 2 September 1982 by France, the Federal Republic of Germany, the United Kingdom, and the United States, had three primary purposes: to avoid overlaps and conflicting claims and to ensure that activities are carried out in an orderly and peaceful manner; to ensure that the Agreement would not prejudice the decisions of the parties with respect to the LOS Convention; and to ensure that adequate deep seabed areas containing nodules remain available for operations by other states in accordance with international law.

The 1982 agreement has served the Parties well. Numerous negotiations were held among the parties and in coordination with the private consortia leading to a successful resolution of overlapping claims and avoidance of conflicts. These negotiations fostered a positive climate, establishing the proposition that those states possessing the requisite technology and having over the years expended the greatest sums in developing the possibility of deep seabed mining exploration and exploitation could resolve their sovereign differences.

Negotiations since September 1982 have led to the successful conclusion of a second agreement -- the "Provisional Understanding Regarding Deep Seabed Matters" signed on 3 August 1984 and which entered into force on the second of this month. This Agreement, consistent with the primary objectives of the 2 September 1982 Agreement, is exactly the type of agreement

envisioned in Section 118 of the 1980 Deep Seabed Hard Mineral Resources Act. The Provisional Understanding constitutes an agreement among the major industrialized nations with interests in deep seabed mining, aimed at avoiding conflict over deep seabed mine sites and providing for regular consultations with respect to deep seabed mining.

The Provisional Understanding signed by Belgium, France, West Germany, Italy, Japan, the Netherlands, the United Kingdom, and the United States includes two Appendices which constitute an integral part of the Agreement. There are a number of salient features, including provisions to avoid conflicts of registration or operations, and to require notification and consultation prior to the application for registration, the issuance of authorizations, or the conduct of operations. The Parties to the Provisional Understanding have agreed that no exploitation shall occur prior to 1 January 1988, and to settle disputes by appropriate means. In addition, provision is made for additonal states to accede to the Agreement after its entry into force.

It must be stressed that the Agreement is without prejudice to, nor does it affect, the positions of the parties, or any obligations assumed by any of the parties, in respect to the LOS Convention. A memorandum attached to the Agreement also ensures that operations by the parties shall be conducted with reasonable regard to the interests of other states in the exercise of the freedom of the high seas, will protect the quality of the marine environment, prevent waste, and preserve future opportunities for the commercial recovery of the unrecovered balance of the hard mineral resources in the authorization areas.

It has been suggested that the Agreement is illegal and contrary to international law. Such a suggestion is untenable. That sovereign states may conclude an agreement the purpose of which is to avoid conflict and waste, promote rational and orderly development of the seabeds, further the rule of law, and be controlling among them in the absence of any other binding international instrument in force to which they are parties and which treats the same issue, I find irreproachable and entirely consistent with international law. I believe the conclusion of this Provisional Understanding is a significant and responsible step forward in the field of international affairs and the conduct of foreign relations. I also believe the Understanding to be the only realistic and workable approach to deep seabed mining beyond the limits of national jurisdiction which has to date been achieved or which is likely to be achieved within the coming decade.

A LOOK AT THE FUTURE

I believe that the oceans policy of the United States, given real world conditions, is the only viable means of dealing with circumstances in which consensus is not possible. That policy admirably protects U.S. interests and will undoubtedly shape the course of ocean affairs for many years to come.

Let me state very emphatically that the United States cannot -- and will not -- sign the United Nations Convention on the Law of the Sea. The Convention is fatally flawed and cannot be cured. It took a decade of continuous negotiations to arrive at the text and the last such substantive session showed how difficult it was to achieve amendments, no matter how small, in that under the Conference procedure achievement of consensus was so friable a creature.

Furthermore, and a fact often overlooked, the Convention is open for signature only until 10 December 1984, after which it is open for adherence or accession only. This administration, whether reelected or not, will be in office through January and has no intention of altering its stance on signature. After December 10 a two-thirds majority of the Senate will be required to achieve U.S. advice and consent. Given that far more than one-third of the current Senate membership disapproves of the Convention, and that U.S. industry is officially on record as being irrevocably opposed to its mining regime, adherence or accession to the Convention in its present form is not possible.

Let me speculate. In my experience, as a general rule, it is legally virtually impossible to amend a convention prior to its entry into force. It is also tremendously difficult to amend after its entry into force as between parties and those who have signed but not ratified it.

Further, in the case of the LOS Convention, given the present political climate among the Convention's proponents, even if these legal facts of life were somehow miraculously overcome, I do not believe the political will exists at present for serious amendment of the Convention. However, since the Convention was opened for signature in December 1982 the political climate has become, if not less hostile, certainly more realistic.

Given this country's resolute and clear stand on the Convention and our provisional approach to deep seabed mining matters, I believe that perceptions will become increasingly realistic. This process will be gradual -- it will not come about within the next year, or two or even four -- but I expect it will in the next six or eight, during which time the U.S. and its like-minded allies are resolved to stand firm. At such a stage, I feel the political will may well develop to re-open the Conference and to give serious consideration to the minimal needs of the U.S. and the industrialized world. I believe that ensuing years will demonstrate to those who espouse the common heritage concept that too much of lasting benefit and promise will be lost if they do not come to grips with such realistic expectations. When that realization and the will to execute it are rekindled, the law of the sea will again become an effective negotiating forum. I look forward to that day.

In the interim, President Reagan has set us on a dynamic course into the future. The truly historic significance of his national oceans policy may not be fully comprehended for generations to come. Referring to the sheer enormity of the territorial expansion resulting from the President's EEZ

Proclamation, Secretary of the Interior William Clark has correctly pointed to the acquisition of the Louisiana Purchase as the only comparable event in our national experience. The exclusive economic zone "increased by one and two-thirds the size of the territory controlled by the people of the United States," and to date we know remarkably little of the abundant wealth of resources this territory might hold. As the Secretary pointed out, it is an incredible challenge -- and opportunity -- that this "newest frontier" holds out for America and for the world. To meet that challenge will require a policy which taps the energy, the imagination, and the initiative of the American people -- a policy which offers them the freedom, the incentive, and the stability to put those attributes to work and set out to develop the resources of the oceans for the benefit of all mankind.

DANIEL CHEEVER: In view of the history of the three UN Conferences on the Law of the Sea and the many changes in coastal state claims, ocean usages, and marine technology since 1958, how can we be sure that U.S. interests will be protected by customary law?

JAMES MALONE: Well, in that part of my remarks, I said both what was now in force and what was developing. I used those words very carefully. No, we do not see the process as static; we do see customary international law codified in the non-seabed portions of the LOS Convention. These portions are reflective of current and developing state practice -- they are not prescriptive. The Convention reflects where we are as far as customary international law is concerned in these particular areas. It is not prescriptive; it is merely a codification, in our view, within those areas. Now Part XI, deep seabed mining, is wholly different. It never existed before. There was never anything like that. It is entirely contractual and prescriptive; it does not hark back to or reflect anything in the 1958 Geneva Conventions; it is wholly new and cannot be binding upon any nation, certainly not until the Convention has come into force, which it has not. Further, the provisions of Part XI cannot be in derogation of rights which presently exist. In the non-seabed portions I do not consider that this is a static matter; I consider it as something that has force or effect not because of the treaty provisions but because of customary law established by practice.

ROBERT KRUEGER: Here's a question from the back of the room. You indicated that we would be accepting the non-seabed portions of the Treaty and then pointed out that we are doing so, somehow, based on reciprocity. How is this consistent with traditional concepts of customary international law?

JAMES MALONE: The particular areas that I had in mind when I referred to the reciprocity concept were straits passage and also our recognition of the territorial seas. Now we made that very clear during the negotiation stages; we stand on that. However, by my statement I did not mean to say that all of the non-seabed portions of the text are recognized only when there is reciprocity. That is not the case; this has never been the case. But in the areas I just enunciated, we have taken a reciprocity position and we believe that this is reflective of the situation. Now I might also add, since somebody will undoubtedly bring the point up, that, in some of the fisheries areas, namely in highly migratory species of tuna, you have a special situation reflective of the migratory habits of tuna. That has always been the U.S. position. We interpret Article 64 as standing for the proposition that highly migratory species have to be managed on a regional basis. In terms of the balance

between coastal state interests, we ought to come down on the side of regional agreements. I am very happy to say that I think we're making some very good progress in this regard. As you know, in the eastern Pacific we have an agreement which I think is now well on the way to ratification with four other Central American countries. It basically covers the area encompassed in the present International Tropical Tuna Zone. We are also conducting negotiations in the South Pacific which look like they're moving in the right direction. But the point is that I made a somewhat generalized statement to which there are some limited exceptions.

CAMERON WATT: I would like the Ambassador to comment. It seems to a lot of us that, in aiming to be able to grant licenses over the deep seabed, the United States administration is itself attempting to divert customary international law to an essentially new direction; it is not operating within what has hitherto been accepted practice. There are, in this situation, elements of potential conflict which may be resolved on the basis of power where the United States is perhaps in a happier position than some others.

JAMES MALONE: Well, you see, we don't accept that proposition. As I tried to point out in my remarks, we never have accepted the proposition that somehow what we are doing is in conflict with a principle that is enshrined in a document that has never come into force. We do not accept that the common heritage concept conflicts with what we have done.

CAMERON WATT: That was not my question. My question was not whether the United States accepted that its claims were in conflict with the Law of the Sea Treaty. Far from it. My question was simply whether the United States action, irrespective of whether the Law of the Sea Treaty was ever accepted or not, was not in variance with previous international practice.

JAMES MALONE: Well, no, as I was going to point out further, I don't think that it is in variance with previous international practice. I think that deep seabed mining is an exercise of a high seas freedom. I don't think that that particular concept has yet been changed. I do not think that the 1970 Resolution at the UN General Assembly changed that. There are those that argue that such a notion was accepted on the basis of consensus. It wasn't. The United States never accepted that. Whereas the United States voted in favor of the Common Heritage of Mankind Resolution, we said then and always have said that we would not accept the concept until such time as an acceptable definition of the concept was agreed to in an internationally accepted Law of the Sea Convention document which satisfied all U.S. interests. We have also always maintained that deep seabed mining remained a licit exercise of a high seas freedom. That has never happened. I don't think that what the United States

has done under the Deep Seabed Hard Minerals Act or any of the other countries that are involved in the August 3 agreement, is in derogation of customary international law, because I don't think that there is any applicable customary international law on that point. As no mining has occurred, no practice giving rise to customary law can exist. I think the August 3 agreement is really the first thing that has been done in this area and that is based upon the recognition that deep seabed mining is a high seas freedom. As part and parcel of that, you do not take action which unjustifiably interferes with the rights of other states in the deep seabed. That is very clear and we have set that out specifically in this agreement. Any commercial exploitation under the August 3 agreement, or otherwise, will not start before 1 January 1988 at the earliest, and we all know it's not going to come then. It's not going to come until the economics of the situation warrant it, which may be well into the next century. But when that time comes, I don't think that this will be in derogation of any international law on the point. Indeed, it seems to me that, as I just mentioned, it's tending to develop the law on that point.

PART II

SPECIAL ENVIRONMENTAL PROBLEMS AND THE ROLE OF INTERNATIONAL ORGANIZATIONS

INTRODUCTORY REMARKS

Jon Van Dyke
William S. Richardson School of Law
University of Hawaii

This panel is designed to look at the environmental provisions in the Law of the Sea Convention, compare them to requirements in other environmental treaties, and examine the role of different international organizations in developing and implementing these requirements. The environmental provisions in the Law of the Sea Convention are innovative in many respects. Many observers have concluded that these provisions could not have been adopted except in a negotiation for a comprehensive treaty covering all ocean issues. Many of the environmental provisions in the Law of the Sea Convention refer to other treaties and their organizations in a way that "leverages" in these other treaties by making their provisions obligatory on those nations that have ratified the Law of the Sea Convention whether or not they have ratified the other environmental treaties. Given this interrelationship between the Law of the Sea Convention and the other environmental treaties, and given the United States' decision to refrain from joining the Law of the Sea Convention, a question is raised about the future U.S. role in these other environmental treaties. We will be looking this afternoon particularly at the London Dumping Convention, the International Whaling Convention, and some of the recent vessel-source pollution conventions as relatively highly-evolved environmental treaties that have mechanisms and procedures in place. We will be asking how the Law of the Sea Convention interrelates with these earlier treaties and what will be the United States' role in these matters.

We have a very distinguished panel with us this afternoon. Our first speaker, Professor Louis Sohn, is now at the University of Georgia. He previously taught at the Harvard Law School for many years and played a significant role in the drafting of many of the provisions in the Convention that we will be talking about this afternoon.

Our second speaker can genuinely claim to be a practitioner of international environmental law. Clifton E. Curtis is now the Executive Vice-President of the Oceanic Society and the Director of its Ocean Policy Office in Washington, DC. Previously he worked at the Center for Law and Social Policy, also in Washington, and has represented a wide variety of national and international environmental groups at international negotiations and at meetings implementing the various environmental conventions that we are talking about this afternoon.

Our third speaker is well known to many of you. Douglas M. Johnston teaches at the Dalhousie Law School and works for the Dalhousie Oceans Studies Programme which was our host for the

very successful 16th Annual Law of the Sea meeting in Halifax two years ago. Doug has written widely on international environmental matters and he is here this afternoon to give us a report on a chart that the Dalhousie Ocean Studies Programme has created on the administrative implementation of the environmental provisions of the Law of the Sea Convention.

Our first commentator is Tadao Kuribayashi, Professor of Law and also Dean of Students at Keio University in Tokyo. Professor Kuribayashi is a member of the Executive Board of the Law of the Sea Institute. He will be discussing in particular the views of Japan on the question of ocean disposal of radioactive waste.

Our second commentator is Professor Edward Miles, who is the Director of the Institute for Marine Studies at the University of Washington in Seattle and who also has been consultant to the United States on questions related to the possibility of subseabed implacement of high level nuclear wastes. Ed is going to give us an update on U.S. thinking on this subject.

Our third commentator is Howard Hume. He represents the environment protection group of Petro-Canada. Howard was very helpful to us in organizing the Law of the Sea Institute's Arctic workshop several years ago and will comment on the environmental provisions from the perspective of industry.

IMPLICATIONS OF THE LAW OF THE SEA CONVENTION REGARDING THE PROTECTION AND PRESERVATION OF THE MARINE ENVIRONMENT

Louis B. Sohn
Woodruff Professor of International Law
University of Georgia School of Law

FIRST STEPS

Problems of the marine environment for many centuries were only of minor concern, seldom extending beyond the protection of swimming or fishing areas against local pollution. In the 1920s, the first statutes were enacted against oil pollution [1], but there was little international cooperation on the subject prior to the Second World War. Thereafter, however, wastes dumped from ever-growing coastal cities, pollution from cars, airplanes and ships, release into ocean-flowing rivers of pesticides and other hazardous waste, and oil spills from wells on the continental shelf have made it clear that some international cooperation and regulation were necessary. The first step in this direction was the International Convention for the Prevention of Pollution of the Sea by Oil, adopted in London in 1954 [2]. More broadly, the 1958 Convention on the High Seas [3] obligated all states to draw up regulations to prevent pollution of the seas by the discharge of oil from ships or pipelines or resulting from the exploitation and exploration of the seabed and its subsoil, "taking account of existing treaty provisions on the subject" [4]; to take measures to prevent pollution of the seas from the dumping of radioactive waste, "taking into account any standards and regulations which may be formulated by the competent international organizations" [5]; and "to co-operate with the competent international organizations" in taking measures for the prevention of pollution of the seas or air space above, resulting from "any activities with radioactive materials or other harmful agents" [6]. It may be noted that these provisions established several important precedents. First, as the purpose of this Convention was declared to be "to codify the rules of international law relating to the high seas" [7], it was applicable to "[e]very State," whether party to it or not; second, the measures to be taken by all states must take into account "existing treaty provisions" or "any standards and regulations which may be formulated by the competent international organizations"; and third, all states must "co-operate with the competent international organization" in taking such measures. Thus, the principles of universality, compliance with internationally developed standards, and cooperation with competent international organizations in implementing such standards became a basic part of environmental law at this early date.

GROWING CONCERN ABOUT THE ENVIRONMENT

The 1960s saw growth of interest in the rapid deterioration of the environment, spurred by such books as Rachel Carson's Silent Spring [8], but little action to protect it. This complacent attitude was shattered when in 1967 the Liberian tanker Torrey Canyon ran aground off the southwest coast of England and spilled a large part of its cargo of over 100,000 tons of crude oil all over that lovely coast. The British Naval and Air Forces were finally forced to bomb the ship in order to prevent further damage. The United Kingdom immediately referred the matter to the Intergovernmental Maritime Consultative Organization (IMCO), requesting it to develop an active program for the prevention and control of pollution. By 1969, IMCO's efforts led to two new international instruments, the Brussels Conventions, taking care of two crucial legal issues that were raised by the Torrey Canyon disaster. They were: the International Convention on Civil Liability for Oil Pollution Damage [9] and the International Convention Relating to the Intervention on the High Seas in Cases of Oil Pollution Casualties [10]. Both these instruments were supplemented by additional instruments, the first one by the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage [11]; and the second one by the Protocol Relating to Intervention on the High Seas in Cases of Marine Pollution by Substances Other Than Oil [12], which extended it to other harmful substances. The Civil Liability Convention was also supplemented by two voluntary arrangements by tanker owners, TOVALOP and CRISTAL [13].

There followed, apart from several regional conventions [14] (which together with later ones will have to be neglected here), two important general conventions pioneering in fields other than oil pollution, namely the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter [15] and the Convention for the Prevention of Pollution from Ships [16]. The latter Convention contained detailed standards for all kinds of pollution from ships as well as provisions relating to the construction and equipment of ships; it introduced also the idea of "port State jurisdiction" [17], which was further developed by the 1982 Law of the Sea Convention [18].

In the meantime, the environmentalist movement succeeded in putting environmental problems on the agenda of the United Nations. The UN Conference on the Human Environment, held at Stockholm in 1972, adopted a Declaration on the Human Environment, Principle 7 of which laid down the following universal duty:

> States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea [19].

THE THIRD UNITED NATIONS LAW OF THE SEA CONFERENCE

This was the situation when the Law of the Sea Conference met in Caracas in 1974 and decided to develop a set of provisions on the protection and preservation of the marine environment. Under the able leadership of Ambassadors Yankov and Vallarta, the Conference succeeded in reaching consensus on a comprehensive codification of this crucial area of international environmental law that is contained in Part XII (Protection and Preservation of the Marine Environment) of the 1982 United Nations Convention on the Law of the Sea (the Law of the Sea Convention) [20]. It is generally agreed that this codification represents the customary international law on the subject [21]. To quote just one example, in March 1983, the President of the United States issued a "U.S. Oceans Policy Statement" in which he noted that the Law of the Sea Convention, apart from the controversial deep seabed mining part, "contains provisions with respect to traditional uses of the oceans which generally confirm existing maritime law and practice and fairly balance the interests of all states." He added that the United States "will continue to work through the International Maritime Organization and other appropriate international organizations to develop uniform international measures for the protection of the marine environment while imposing no unreasonable burdens on commercial shipping" [22]. This policy is consonant with the goals of the Law of the Sea Convention, which puts great emphasis on the need for elaboration of further universal standards for the protection and preservation of the marine environment.

THE INNOVATIVE FEATURES OF THE LAW OF THE SEA CONVENTION

The environmental provisions of the Law of the Sea Convention are dynamic in character: they build on the accomplishments of the past, discussed above; they add to the structure where there were some gaps; and they establish a method for incorporating future developments into the Convention without the necessity of constant amendments. They also provide for an efficient enforcement machinery against a violator and an effective system for the settlement of disputes relating to the interpretation and application of the Convention's environmental provisions, a system free of restrictions that circumscribe the settlement of disputes relating to several of the other important parts of the Convention (e.g., fishing and marine scientific research).

The basic provisions on the protection and preservation of the environment in Part XII of the Law of the Sea Convention consist of 46 articles; taking into account provisions on the subject contained in other parts of the Convention, this is one-sixth of the total. It is not possible to deal here with all these provisions, and by necessity only a few general problems will be explored in this paper.

In the first place, it is quite clear that the provisions of Part XII are meant to be universal, applicable to all states as generally accepted customary international law. As in the 1958 Convention on the High Seas, the language used refers consistently to "States," differing in this respect from the provisions of Parts XI and XV, where the more restrictive phrase "States Parties" is usually employed. As the United States intimated in its Oceans Policy Statement, the environmental provisions both bind non-parties to the Convention and can be invoked by them against States Parties as well as other non-parties.

There is, however, one important exception; the complex machinery for the settlement of disputes established by the Convention applies to States Parties only, as it "is well established in international law that no State can, without its consent, be compelled to submit its disputes with other States either to mediation or arbitration, or to any other kind of pacific settlement" [23]. The United States would be able to utilize the procedures provided for in Part XV of the Convention and in Annexes V-VIII only by reaching an agreement with States Parties in accordance with Article 288(2) of the Convention [24], by filing a special declaration accepting the jurisdiction of the International Court of Justice with respect to law of the sea disputes in accordance with Article 36(2) of the Statute of the Court [25], or by making a unilateral declaration accepting the jurisdiction of an arbitral tribunal under Article 287 of the Convention, with respect to any state accepting reciprocally the same obligation with respect to the United States. The United States might have included, for instance, such a jurisdictional clause in its proclamation on the Exclusive Economic Zone [26].

Secondly, the environmental provisions of the Convention are very comprehensive as to the subject matter, as they cover the three major sources of marine pollution:

(a) release of toxic, harmful or noxious substances from land-based sources (including rivers, pipelines and outfall structures), from or through the atmosphere (whether originating in factories, or emitted by cars, airplanes or vessels), or by dumping such substances in the ocean by ferrying them out from a port;
(b) pollution from vessels caused by collisions, other accidents, or intentional or unintentional discharges; and
(c) pollution from installations and devices used in exploring or exploiting natural resources of the seabed and subsoil, and from accidents, such as oil spills, related to such exploration or exploitation [27].

Thirdly, the environmental provisions of the Convention apply to all ocean surfaces, not only to the high seas but also to areas under the jurisdiction of the coastal states, including not only the Exclusive Economic Zone and the continental shelf but also the territorial sea and ports. The Convention has

achieved a careful balance between the interests of coastal states and navigational interests, especially by separating the standard-setting from enforcement, or to use the terminology of the revised Restatement on Foreign Relations Law, by separating jurisdiction to prescribe from jurisdiction to adjudicate and enforce [28]. The new port-state jurisdiction to enforce international standards on a global basis [29] is a part of this new consensus, allowing the state where a ship is voluntarily within a port or at an offshore terminal to undertake investigations and even institute proceedings with respect to a violation of international anti-pollution standards, even if the violation and the damage have occurred far away, without any effect on the areas under its jurisdiction. But such proceedings may be instituted only at the request of a state in whose waters the violation or the damage has occurred, or at the request of the flag state irrespective of where the violation has occurred (e.g., if it has occurred on the high seas).

In the fourth place, the environmental provisions of the Convention are broad functionally, extending not only to the traditional measures designed to combat marine pollution that has already occurred but also to various measures for preventing such occurrence, for instance, by requiring adequate standards for the design, construction and manning of vessels [30]. The Convention is not limited to the protection of the environment; there is an emphasis throughout on its preservation and on measures necessary not only to control pollution but also to prevent and reduce it. There are obligations to notify other states of any imminent danger of pollution [31], to develop contingency plans for responding to pollution incidents [32], to monitor the risks of pollution [33], to assess potential effects of planned activities that may cause substantial pollution or significant changes in the marine environment [34], and to communicate such assessments to the states concerned [35]. Special provisions have been also agreed upon for the protection of ice-covered areas [36] and for the protection of areas requiring different treatment because of particular oceanographic and ecological conditions [37].

THE INTERDEPENDENCE OF THE OLD AND NEW CONVENTIONS

Finally, the LOS Convention intermingles new obligations with obligations already existing under general or regional agreements. The crucial new obligation is contained in Article 192, which provides that "States have the obligation to protect and preserve the marine environment." While previous international agreements have contained specific obligations with respect to particular pollution hazards, enlarging step-by-step the circle of these obligations, the Convention has now transformed the principle embodied in the Stockholm Declaration into a generally binding rule of international law. The remaining provisions of Part XII spell out that obligation in some detail, introducing -- where necessary -- some important qualifications. For instance, under Article 194(1) the broad

obligation of states to "take, individually or jointly as appropriate, all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of marine environment from any source" is qualified by the phrase that they shall use for this purpose "the best practicable means at their disposal and in accordance with their capabilities."

The measures to be taken embody both a duty to adopt the necessary laws and regulations and a duty to enforce these laws and regulations. In adopting laws and regulations to prevent, reduce and control pollution, states are obligated to take into account "internationally agreed rules, standards and recommended practices and procedures," i.e., the various conventions that have been adopted previously (some of which were mentioned above) or that may be adopted later [38]. But states should not stop there; they "shall take other measures as may be necessary to prevent, reduce and control" various kinds of pollution, e.g., from land-based sources, from seabed activities, from or through the atmosphere, or by dumping [39]. Further, states acting through competent international organizations such as the International Maritime Organization (IMO, formerly IMCO) or diplomatic conferences such as the one responsible for the adoption of the 1973 MARPOL Convention [40] "shall establish [or "endeavor to establish"] global and regional rules, standards and recommended practices and procedures to prevent, reduce and control" various kinds of pollution (as listed above), and to re-examine them "from time to time as necessary" [41]. Whether the international rules and standards and recommended practices and procedures have been established before or after the adoption of the Law of the Sea Convention, national laws, regulations and measures "shall be no less effective than international rules, standards and recommended practices and procedures" [42]. Finally, states "shall adopt laws and regulations and take other measures necessary to implement applicable international rules and standards established through competent international organizations or diplomatic conference to prevent and control pollution of the marine environment" from various sources [43]. There are similar provisions in other parts of the Convention, most of them related to the protection of the environment, either directly or indirectly [44].

The common, and rather surprising to a traditional international lawyer, feature of these provisions is the universal applicability of the international rules and standards (and, in some instances, also of recommended practices and procedures) to prevent, reduce, and control pollution. A state's duty to adopt laws and regulations conforming to these international rules and standards does not depend on its ratification of a particular agreement or its actual participation in the adoption of a rule or standard by an international organization or a diplomatic conference. As is stated most expressly in Article 211(2), state laws and regulations "shall have at least the same effect as that of generally accepted international rules and standards established through the competent international organization or general

diplomatic conference." A state does not have to ratify every international agreement relating to the protection of marine environment, nor does it have to approve officially a rule or regulation adopted by the competent international organization or a "general" diplomatic conference. But once a rule or standard has been generally accepted, a state has a duty, imposed by the Law of the Sea Convention, to enact the necessary laws and regulations.

This is the most dynamic feature of the Law of the Sea Convention. It permits quick adaptation to a constantly changing situation, where new dangers to the environment require rapid action by the community of states. Once a rule is generally accepted, usually by consensus at a meeting of an international organization or at a diplomatic conference, each state has under the new customary international law developed by the Law of the Sea Conference the duty to act in accordance with it. The necessary safeguard is in the words "generally accepted," which imply that a preponderant majority of states, including almost all states with any special interest in that rule, have accepted the rule as one fairly balancing the interests of all states. There may be perhaps one exception. If a state has consistently opposed from the beginning a particular rule or standard, the rule may nevertheless become generally applicable, except that it does not apply to the protesting state [45]. Of course, even this exception is subject to the basic international rule of reasonableness and fairness and cannot be invoked in bad faith; if a state abuses its right to the detriment of other states in disregard of their important interests, the international community may require that it conform to the generally accepted rule and standard [46].

The combined effect of the various special conventions on the protection of the environment, of the more general provisions of the Law of the Sea Convention, and of the special rule bringing all other conventions, rules, and standards, whether past or future, under the wide umbrella of the Law of the Sea Convention, is that a veritable code of rules and standards for the protection and preservation of the environment, and in particular for the prevention, reduction, and control of pollution, has become generally accepted. This is consonant with the policy of the United States "to develop uniform international measures for the protection of the marine environment" [47]. While the United States has accompanied its statement on the subject with a proviso that such measures should not impose an "unreasonable burden on commercial shipping" [48], it is not likely that any generally accepted rules and standards would violate this proviso. As the new rules and standards will be developed primarily by the International Maritime Organization and other organizations and conferences in which the United States is playing an active part, there should be no difficulty in ensuring that future uniform rules would protect not only the marine environment but also the navigational rights so important not only to major

powers but also to all those depending on maritime commerce. The new structure of the International Maritime Organization under its revised constitution has been designed to balance the interests of the major powers and those of other members of the international community [49]. The Law of the Sea Convention requires further work on international rules and standards in several fields; the new program of the International Maritime Organization is being geared in that direction even before the Law of the Sea Convention has entered into force [50]. The Food and Agriculture Organization, with its special interest in preserving fisheries, and the United Nations Environment Program are also ready to help, and appropriate arrangements for cooperation and coordination are already being prepared.

It may be hoped that by the end of this century the new code for the protection and preservation of the marine environment will be completed and that the system established by the Law of the Sea Convention will continue to be able to keep pace with the new threats to the environment that are not likely to diminish in number and severity. This time, international law is ready for the challenge.

NOTES

1. E.g., the Oil Pollution Act of 1924, 43 Stat. 604, as amended in 1966, 33 U.S.C. Paragraphs 431-37, expressly repealed by the Water Quality Improvement Act of 1970, 84 Stat. 113, Paragraph 108 (1970), and superseded by 86 Stat. 816 (the Clean Water Act of 1972), 33 U.S.C. Paragraph 1251.
2. 12 U.S.T. 2989 (1958); T.I.A.S. No. 4900; 327 U.N.T.S. 3. This Convention entered into force in 1958. By 1984, it was ratified by 70 states.

   The Convention was amended several times. For the 1962 amendments, which entered into force in 1967, see 17 U.S.T. 1523; T.I.A.S. No. 6109; 600 U.N.T.S. 322. For the 1969 amendments, which entered into force in 1978, see 9 Int'l Leg. Mat. 1 (1970); 2 Lay, Churchill and Nordquist, New Directions in the Law of the Sea 580 (1973) (hereinafter cited as "New Directions"). For the 1971 amendments, not yet in force in 1984, see 11 Int'l Leg. Mat. 267 (1972); 2 New Directions 589. For the text of the Convention as amended through 1971, see Barros and Johnston, The International Law of Pollution 200 (1974).
3. 13 U.S.T. 2312; T.I.A.S. No. 5200; 450 U.N.T.S. 82. By 1984, it was ratified by 57 states.
4. Id. Article 24.
5. Id. Article 25(1).
6. Id. Article 25(2).
7. Id. Preamble.
8. Boston, 1962.

9. Brussels, 1969. 973 U.N.T.S. 3; 9 Int'l Leg. Mat. 45 (1970); U.N. Legislative Series, ST/LEG/SER.B/16, at 447. This Convention entered into force in 1975. By 1984, it had been ratified by 52 states. For discussion of the Convention, see Doud, "Compensation for Oil Pollution Damage: Further Comment on Civil Liability and Compensation Fund Convention," 4 J. Mar. L. & Comm. 525 (1973); Healy, "The International Convention on Civil Liability for Oil Pollution Damage, 1969," 1 J. Mar. L. & Comm. 317 (1970); Levandowski, "Civil Liability for Oil-Pollution Damage on the Norwegian Continental Shelf," 5 Ocean Dev. & Int'l L. 397 (1978); O'Connell, "Reflections on Brussels: IMCO and the 1969 Pollution Convention," 3 Cornell Int'l L. J. 161 (1970). For a comparison of the Civil Liability Convention and the U.S. Federal Water Pollution Control Act of 1976, see Clausen, "Liability for High Seas Oil Pollution Cleanup Costs: Domestic and International Provisions," 3 Hastings Int'l and Comp. Rev. 473 (1980).
10. Brussels, 1969. 26 U.S.T. 765; T.I.A.S. No. 8068. This Convention entered into force in 1975. By 1984, it was ratified by 43 states. For discussion, see Emanuelli, "The Right of Intervention of Coastal States on the High Seas in Cases of Pollution Casualties," 25 Univ. N. Brunswick L. Rev. 79 (1976); Scheffer, "Pollution of the Sea by Oil: The Brussels Convention of 1969 Relating to Oil Pollution Casualties," 18 Netherlands Int'l L. Rev. 2 (1971).
11. Brussels, 1971. 11 Int'l Leg. Mat. 284 (1972); 2 New Directions 611. This Convention entered into force in 1978. By 1984, it was ratified by 28 states. On this Convention, see Doud, supra note 9, and Hunter, "The Proposed International Compensation Fund for Oil Pollution Damage," 4 J. Mar. L. & Comm. 117 (1972).

    This Convention and the 1969 Civil Liability Convention were amended in 1984 in response to various objections of the U.S. Senate. See 23 Int'l Leg. Mat. 177, 195 (1984).
12. London, 1973. T.I.A.S. No. 10561; 12 Int'l Leg. Mat. 1319 (1973); 68 Am. J. Int'l L. 577 (1974). This Protocol entered into force in 1983. By 1984, it was ratified by 16 states.
13. Our good friend Gordon Becker has written a lyrical piece on this, entitled "A Short Cruise on the Good Ships TOVALOP and CRISTAL," that may be found in 5 J. Mar. L. & Comm. 609 (1974). For text of these agreements, see 2 New Directions 641, 646.
14. See generally, De Yturriaga, "Regional Conventions on the Protection of the Marine Environment," 162 Recueil des Cours 319-449 (1979), Hakapaa, Marine Pollution in International Law 75-116 (1981); Hayward, "Environmental Protection: Regional Approaches," 8 Marine Policy 106-19 (1984); and Timagenis, International Control of Marine

Pollution, pp. 4-18 (1980), which are good sources of reference to commentaries on the following conventions:

(a) The Agreement for Co-operation on Dealing with Pollution of the North Sea by Oil (Bonn, 1969), 704 U.N.T.S. 3; U.N. Legislative Series, ST/LEG/SER.B/16, at 435; 9 Int'l Leg. Mat. 359 (1970).

(b) The Agreement between Denmark, Finland, Norway and Sweden Concerning Cooperation to Ensure Compliance with the Regulations for Preventing the Pollution of the Sea by Oil (Copenhagen, 1967), 620 U.N.T.S. 225. This agreement was replaced four years later by the Agreement to Deal with Pollution of the Sea by Oil (Copenhagen, 1971), 822 U.N.T.S. 311; U.N. Legislative Series, ST/LEG/SER.B/16, at 454; 2 New Directions 637.

(c) The Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft (Oslo, 1972), 932 U.N.T.S. 3; U.N. Legislative Series, ST/LEG/SER.B/16, at 457; 932 U.N.T.S. 3; 11 Int'l Leg. Mat. 262 (1972).

(d) The Convention for the Prevention of Marine Pollution from Land-Based Sources (Paris, 1974); U.N. Legislative Series, ST/LEG/SER.B/18, at 547; 13 Int'l Leg. Mat. 352 (1974); 4 New Directions 499; and see Busby, "The Convention for the Prevention of Marine Pollution from Land-Based Sources: An Effective Method for Arbitrating International Effluent Pollution Disputes," 5 Cal. W. Int'l L. J. 350 (1975).

(e) The Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki, 1974), U.N. Legislative Series, ST/LEG/SER.B/18, at 518; 13 Int'l Leg. Mat. 546 (1974). For comment, see Boczek, "International Protection of the Baltic Sea Environment Against Pollution: A Study in Marine Regionalism," 72 Am. J. Int'l L. 782 (1978).

(f) The Convention on the Protection of the Environment Between Denmark, Finland, Norway, and Sweden (Stockholm 1974), U.N. Legislative Series, ST/LEG/SER.B/18, at 397; 13 Int'l Leg. Mat. 511 (1974).

(g) The Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona, 1976), U.N. Legislative Series, ST/LEG/SER.B/19, at 459; 15 Int'l Leg. Mat. 290 (1976). The Convention was accompanied by two protocols: The Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft, U.N. Legislative Series, ST/LEG/SER.B/19, at 473; 15 Int'l Leg. Mat. 300 (1976); and the Protocol Concerning Co-operation in Combatting Pollution of the Mediterranean Sea by Oil and Other Harmful Substances in Cases of Emergency, U.N. Legislative Series, ST/LEG/SER.B/19, at 468; 15 Int'l Leg. Mat. 306 (1976). Subsequently, the

Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources was adopted (Athens, 1980), 19 Int'l Leg. Mat. 869 (1980). For discussion of these protocols and the Convention, see Bliss-Guest, "The Protocol Against Pollution from Land-Based Sources: A Turning Point in the Rising Tide of Pollution," 17 Stan. J. Int'l L. 261 (1981); Boxer, "Mediterranean Pollution: Problem and Response," 10 Ocean Development and Int'l L. 315 (1981). Goering, "Mediterranean Protocol on Land-Based Sources: Regional Response to a Pressing Transnational Problem," 13 Cornell Int'l L. J. 329 (1980).

(h) The Convention on Civil Liability for Oil Pollution Damage from Offshore Operations (London, 1976), 16 Int'l Leg. Mat. 51 (1977).

(i) Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution (Kuwait, 1978), 17 Int'l Leg. Mat. 501 (1978), accompanied by the Protocol Concerning Regional Co-operation in Combatting Pollution by Oil and Other Harmful Substances in Cases of Emergency, 17 Int'l Leg. Mat. 526 (1978). For comment, see Sagat, "The Kuwait Convention for Co-operation on the Protection from Pollution of the Marine Environment of the Arabian Gulf Area," 34 Revue Egyptienne de Droit International 149 (1978).

(j) The Convention on Long-Range Transboundary Air Pollution (Geneva, 1979), 18 Int'l Leg. Mat. 1442 (1979).

(k) The Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of West and Central African Region (Abidjan, 1981), 20 Int'l Leg. Mat. 746 (1981).

(l) The Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena de Indias, 1983), 22 Int'l Leg. Mat. 227 (1983); United Nations, Law of the Sea Bull., No. 1, at 89.

15. London, Mexico City, Moscow and Washington, D.C., 1972. 26 U.S.T. 2403; T.I.A.S. No. 8165; 11 Int'l Leg. Mat. 1291 (1972). This Convention entered into force in 1975. By 1984, it was ratified by 50 states. For comment, see Timagenis, supra note 14, at 171-287.

16. London, 1973 (commonly known as the MARPOL Convention). U.N. Legislative Series, ST/LEG/SER.B/18, at 461; 12 Int'l Leg. Mat. 1319 (1973). Not in force. For comment, see Timagenis, supra note 14, at 319-574; Booth, "International Ship Pollution Law," 4 Marine Policy 215 (1980). The MARPOL Convention was revised by a protocol in 1978, 17 Int'l Leg. Mat. 546 (1978). The revised text entered into force in 1983; it was ratified by 22 states.

17. MARPOL, Article 6(5). See Timagenis, supra note 14, at 465-66, 510-15.
18. See Infra note 29 and related text.
19. For the text of the Declaration, see U.N. Doc. A/CONF.48/14/Rev.1 (U.N. Pub. E.73.II.A.14); 11 Int'l Leg. Mat. 1416 (1972). The language used in Principle 7 is modelled after the 1972 London Convention, supra note 15. See also Garth, "Declaration on the Human Environment," 8 Stan. J. Int'l Studies 37 (1973); Sachs, "Environmental Development Revisited: Ten Years After the Stockholm Conference," 8 Alternatives 369 (1982); and Sohn, "The Stockholm Declaration on the Human Environment," 14 Harv. Int'l L. J. 423 (1973). Concerning the implementation of the Declaration by various international organizations, see Mensah, "Environmental Protection: International Approaches," 8 Marine Policy 95 (1984).
20. Montego Bay, Jamaica, 1982, U.N. Pub. E.83.V.5; 21 Int'l Leg. Mat. 1261 (1982).
21. See Macrae, "Customary International Law and the United Nations Law of the Sea Treaty," 13 Cal. W. Int'l L. J. 181 (1983); Hickey, "Custom and Land-based Pollution of the High Seas," 15 San Diego L. Rev. 409 (1977); Lee, "The Law of the Sea Convention and the Third States," 77 Am. J. Int'l L. 541 (1983). But see Vallarta, "Protection and the Preservation of the Marine Environment and Marine Scientific Research at the Third United Nations Conference on the Law of the Sea," 46 Law and Contemporary Problems, No. 2, at 147, 152 (1983).
22. The statement appears in 83 Dep't State Bull., No. 2075, at 70 (1983); 1 U.N. Law of the Sea Bulletin 80 (1983); 22 Int'l Leg. Mat. 464 (1983). For comments, see 79 Am. J. Int'l L. 151 (1985).
23. Status of Eastern Carelia (Advisory Opinion, 1923), P.C.I.J., Series B, No. 5, at 27.
24. According to that provision, a "court or tribunal referred to in article 287 [the International Tribunal for the Law of the Sea, the International Court of Justice, an arbitral tribunal or a special arbitral tribunal] shall also have jurisdiction over any dispute concerning the interpretation or application of an international agreement related to the purposes of this Convention, which is submitted to it in accordance with the agreement."
25. As Egypt has done with respect to the disputes relating to the Suez Canal, 37 Y.B.I.C.J. 63 (1983).
26. 48 Fed. Reg. 10605 (1983); 83 Dep't State Bull., No. 2075, at 70; 1 U.N. Law of the Sea Bulletin 78 (1983); 22 Int'l Leg. Mat. 461.
27. LOS Convention, Article 194(3). Concerning sources of marine pollution, see also Remond-Gouilloud, "Prevention and Control of Marine Pollution," in The Environmental Law of the Sea 193, at 196-202 (D.M. Johnston, ed. 1981).
28. See American Law Institute, Restatement of the Law, Foreign Relations Law of the United States (Revised), Tentative Draft No. 3, Paragraph 401, at 1 (1982).

29. LOS Convention, Article 218.
30. Id., Article 194(3)(d).
31. Id., Article 198.
32. Id., Article 199.
33. Id., Article 204.
34. Id., Article 206.
35. Ibid.
36. Id., Article 234.
37. Id., Article 211(6).
38. Id., Articles 207(1) and 212(1).
39. Id., Articles 207(2), 208(2), 210(2), 212(2).
40. See note 16, supra.
41. LOS Convention, Articles 207(4), 208(5), 210(4), 211(1), 212(3).
42. Id., Articles 208(3), 210(6), 211(2), and (4) (with a variation).
43. Id., Articles 213-14, 216-20, 222. For a list of these sources, see text at note 27, supra.
44. See LOS Convention, Articles 21(2) and (4), 39(2), 41(3), 53(8), 60(3), 60(5)-(6), 94(2)(a), 94(5).
45. In the Fisheries Case (United Kingdom v. Norway), [1951] I.C.J. Rep. 116, at 139, the International Court of Justice noted that Norway had consistently objected to the ten-mile limit on straight lines closing bays to foreign fishing that was included in the 1882 North Sea Fisheries Convention (160 Parry, The Consolidated Treaty Series 219) and that the United Kingdom could not, therefore, invoke that limit concerning Norway. Similarly, the Court pointed out in the North Sea Continental Shelf Cases (Denmark and the Netherlands v. Federal Republic of Germany), [1969] I.C.J. Rep. 3, at 22, that the delimitation rule in the 1958 Convention on the Continental Shelf (15 U.S.T. 471, T.I.A.S. No. 5578, 499 U.N.T.S. 311) did not become binding on the Federal Republic of Germany as customary international law because it clearly reserved its position on the subject as soon as that rule was applied in the North Sea delimitations. In the Asylum Case (Columbia v. Peru), [1950] I.C.J. Rep. 266, at 277-78, the Court found that a regional rule of customary international law could not be invoked against Peru which has repudiated it by refraining to ratify the conventions which were the basis for that rule.
46. See LOS Convention, Article 300, and also Articles 56(2), 58(3), and 87(2).
47. See text at note 22, supra.
48. See document cited in note 22, supra.
49. Convention on the International Maritime Organization (previously the Intergovernmental Maritime Consultative Organization), adopted in Geneva in 1948, and amended in 1964, 1965, 1974, 1975, and 1977. IMO Pub. 023 82.08E (consolidated text); 9 U.S.T. 621, T.I.A.S. No. 4044, 289 U.N.T.S. 48 (1948 text); 18 U.S.T. 1299, T.I.A.S. No. 6285, 607 U.N.T.S. 276 (1964 amendments); 19 U.S.T. 4855,

T.I.A.S. No. 6490, 649 U.N.T.S. 334 (1965 amendments); 28 U.S.T. 4607, T.I.A.S. No. 8606 (1974 amendments); T.I.A.S. No. 10374 (1975 amendments); the 1977 amendments will enter into force on November 10, 1984, [1983] IMO News, No. 4, at 3. Articles 38-42 of the revised Convention deal with the Marine Environment Protection Committee; its functions depend to a large extent on provisions in other conventions and instruments (Article 42).

50. [1983] IMO News, No. 4, at 1, 3-8.

RECENT DEVELOPMENTS UNDER SPECIAL ENVIRONMENTAL CONVENTIONS

Clifton E. Curtis
Director, Ocean Policy Offices
The Oceanic Society

INTRODUCTION

The Law of the Sea Convention that was opened for signature in December, 1982, represents the most ambitious and significant agreement affecting the oceans that has ever been adopted. The emergence of a Convention designed to regulate activities covering over two-thirds of the earth's surface is a signal accomplishment in the history of international negotiations. It embodies a broad consensus among a diverse group of nations on almost all law of the sea issues. By establishing a framework of agreed rights and duties and methods for resolving disputes, the Convention can make a significant contribution to world peace.

No one nation can expect that the Convention will satisfy fully all its interests. When viewed as a whole, however, the benefits of the Convention -- for all nations -- far outweigh any real or theoretical disadvantages.

The same can be said with respect to the Convention's environmental provisions which establish basic obligations and duties to protect what are essentially common resources. While they fall short of the comprehensive and holistic approach that is needed, they constitute a significant advance. The Convention's articles and annexes establish standards and obligations for the prevention, reduction, and control of pollution from all sources, as well as obligations for the protection and conservation of living marine resources. Marine scientific research efforts can contribute immeasurably to those tasks through the cooperative approaches set forth in the Convention.

Substantial responsibility rests with coastal states to adopt, implement, and enforce effective environmental strategies that will protect and conserve our marine resources. At the same time, the Convention's codification of expanded jurisdiction over marine areas and resources -- through its endorsement of 12-mile territorial seas and 200-mile exclusive economic zones -- invites accelerated exploitation for national benefit. Will the delicate balance between those competing interests and objectives, among others, be met in a manner that provides for sustainable development of our marine resources?

As the program content for this conference suggests, resolution of a multitude of ocean issues will influence the "Developing Order of the Oceans." Such development long predates the recent Law of the Sea Convention and will continue to evolve as long as humankind is around. The Convention, nonetheless, offers a unique opportunity to meet the challenge that exists.

From an environmental perspective, there is another international agreement that deserves special mention in providing the context for a closer look at special environmental conventions. In May of 1980, the International Union for the Conservation of Nature and Natural Resources (IUCN) with the support of UNEP and World Wildlife Fund launched the World Conservation Strategy. The aim of the World Conservation Strategy, which has been embraced by many governments, international and non-governmental organizations, "is to help advance the achievement of sustainable development through the conservation of our living resources." It provides both an intellectual framework and practical guidance for protection and conservation actions, including specific measures for the oceans. It embraces an "ecosystem of the whole" concept -- one that only recently has surfaced at the global treaty level, in relation to Antarctic living resources. In tandem with the Law of the Sea Convention, the guiding principles contained in the World Conservation Strategy can serve as the foundation for the developing order that is needed.

SPECIAL ENVIRONMENTAL CONVENTIONS

The other panelists during this session -- Professors Sohn and Johnston -- have been given the task of addressing the broader implications of the Law of the Seas Convention's environmental provisions and its administrative implementation. As their presentations undoubtedly will show, a symbiotic relationship exists between the Convention and issue-specific environmental conventions and agreements.

Articles 237 and 211 of the Law of the Sea Convention basically state that any other special agreements between states as to preservation of the marine environment shall not be prejudiced by Convention provisions as long as they are consistent with Convention objectives. Conversely, as Professor Sohn has noted, the adoption of international rules and standards under issue-specific international conventions are considered universally applicable under the Law of the Sea Convention. Thus, while the Law of the Sea Convention has not yet entered into force, its environmental obligations and duties are the subject of ongoing revision -- and future application to all states -- through the actions of member states under special conventions that address marine environmental concerns.

This paper does not attempt to address exhaustively the recent developments that are occurring with respect to the numerous existing issue-specific conventions that address important environmental matters. Instead, the elements of those which are addressed serve as examples of the difficult balancing of interests and objectives that is involved in international efforts to effect environmentally sound approaches.

Oil Spill Liability and Compensation

Damaging oil spills continue to occur, resulting in property and environmental damage as well as personal injury and death. Although the amount of oil released in accidental tanker spills has declined since the latter half of the 1970s, the potential for a catastrophic spill remains. Marine transport activities in general account for one-third of the total volume of oil pollution, while other sources (including refineries, municipal waste, and offshore oil production) account for the remainder.

Two existing treaties, the International Convention on Oil Pollution Damage, 1969 (CLC) and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971 (Fund), reflect the global effort to establish liability and compensation for damages from oil spills by seagoing vessels carrying persistent oil in bulk as cargo. The impetus for those treaty regimes was the Torrey Canyon oil spill off Great Britain's coastline in 1967. The CLC came into force in 1975 and has now been ratified by fifty-seven states; the Fund in 1978 -- now ratified by twenty-nine states.

CLC establishes shipowner liability to persons, including governments, for oil pollution damages and clean up costs subject to monetary limitations. The existing CLC regime establishes tanker owner responsibility for the first $125 per gross registered ton (GRT) of spill damages to a maximum of about $15 million (with some "rollback" provisions that lower the effective liability to $9 million). The Fund establishes an international fund administered by its member states and is supported by contributions calculated on the basis of the number of barrels of seaborne oil received in those states. The Fund provides compensation above that provided by the shipowner under CLC up to a total prescribed per incident level -- presently about $47 million.

From 30 April to 25 May 1984 a diplomatic conference was held in London under the auspices of the International Maritime Organization (IMO) to revise the CLC/Fund regimes. The conference was held principally due to general agreement among member states (especially France, Canada, and the Netherlands) and others (especially the United States), that the existing liability and compensation limits were far too low. Raising those limits was the dominant focus of the amendments -- the 1984 Revised Protocols -- that were adopted at the conference.

The United States has never ratified the existing CLC/Fund, principally because the limits were believed inadequate for purposes of Senate advice and consent. The U.S. delegation and many others believed that every effort should be made to ensure that cleanup costs and all legitimate damage claims are fully compensated if a catastrophic spill, such as the Amoco Cadiz catastrophe, were to occur. Some of those delegations noted their underlying belief that the escape or discharge of oil from ships is an inherent risk in the extraordinarily profitable business of handling and selling oil, and that the economic consequence of pollution damage should be borne by the shipping

industry and oil cargo interests. Since cleanup and damages resulting to the Cadiz incident were estimated to be in the $180-300 million range (by the P & I Clubs), substantial increases in the CLC/Fund limits were sought.

Under the Revised 1984 Protocols, shipowner liability (CLC) will rise from the current maximum of $15 million to $62 million, and total compensation (including Fund) will rise from a ceiling of $47 million to $208 million. In addition, a minimum level for shipowner liability was set at $3 million, rather than sloping upward from zero liability levels based on GRT.

In addition to the increases in limits, the protocols make several other environmentally important revisions to the existing regimes. These include:

Geographical Scope of Coverage

The present regimes apply exclusively to pollution damage which is caused on the territory (including territorial seas) of member states. The 1984 protocols extend coverage to the seaward edge of member states' 200-mile exclusive economic zones. References to the Law of the Sea Convention's 200-mile EEZ principles were made repeatedly by delegations supporting such an extension. It represents an important example -- the first, to my knowledge, at the global level -- of how the now completed Law of the Sea Convention can be carried forward into issue-specific conventions. Such an extension will allow national authorities greater certainty that clean-up efforts involving offshore spills will be covered by CLC/Fund;

Definition of Pollution Damage

The existing CLC/Fund definition is very general, i.e., "loss or damage caused outside the ship." It has allowed the courts of member nations substantial latitude in determining which damages and costs are compensable. The impetus for a better definition was due, in part, to views that (1) a more precise definition was needed so that national courts would not be left in doubt in awarding compensation, (2) environmental restoration costs need to be recognized expressly, and (3) speculative or theoretical claims should be excluded. The new definition under the revised protocols covers "loss or damage ... provided that loss or impairment of the environment other than loss of profit shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken." While this reflects an improvement from an environmental perspective, those familiar with comparable U.S. laws will note that domestic coverage goes further to include damages for loss of natural resources, including the reasonable costs of assessing such injury, destruction or loss; and

Ships Covered

The existing CLC/Fund apply only to vessels actually carrying oil in bulk as cargo (i.e., laden tankers). The 1984 protocols extend coverage to unladen tankers carrying oil as

ballast (or in fuel bunkers) -- consistent with U.S. law -- and to combination carriers on any voyage after having carried oil in bulk, with the burden of proof placed on the owner of the carrier to prove that it has no residues of such carriage of oil in bulk aboard.

These and other results of the IMO diplomatic conference represent a compromise for all the delegations that participated. The CLC protocol was adopted by a vote of forty-eight in favor, with sixteen abstentions; the Fund protocol was adopted by forty-four in favor, with twenty-one abstentions. No delegation voted against either protocol. Since the conference, the Reagan Administration has gone on record in support of the 1984 Revised Protocols. In a 13 June 1984 statement, Secretary of Transportation Elizabeth Dole endorsed United States ratification of the protocols, expressing the hope that the U.S. will be the first nation to sign the amended conventions. Expeditious ratification of the 1984 Revised Protocols by the entire global community will assist greatly in efforts to ensure that all legitimate claimants are fully compensated if a catastrophic spill were to occur off the United States or elsewhere.

Prevention and Reduction of Vessel-Source Pollution

In addition to the CLC and Fund Conventions, another landmark convention for the control of vessel-source pollution is the 1973 International Convention for the Prevention of Pollution from Ships (MARPOL) and a supplemental protocol that was adopted in 1978 under the auspices of IMO. MARPOL's primary objective is "the complete elimination of intentional pollution of the marine environment by oil and other harmful substances and the minimization of accidental discharge of such substances." MARPOL's scope of application extends to substances which are discharged operationally (either intentionally or accidentally) but does not include dumping and the release of harmful substances directly arising from the exploration and exploitation of offshore mineral resources or the release of substances for legitimate scientific research relating to pollution control. MARPOL establishes generally acceptable norms applicable to all types of vessels for discharge and handling of oil and other harmful substances. In addition, more stringent standards for pollution control are applied in certain designated "special areas." MARPOL entered into force in October, 1983, one year after ratification by the United States and fourteen other countries whose merchant fleets constitute more than 50 percent of the world's merchant fleet.

The substantive regulations of MARPOL are contained in five annexes covering: oil pollution (Annex I); noxious liquid substances in bulk (Annex II); harmful substances in packaged form, such as the barrels of uranium hexafluoride being carried by the French vessel Mont Louis which has recently sunk off the coast of Belgium (Annex III); sewage from ships (Annex IV); and garbage from ships (Annex V).

The regulations set forth in the annexes constitute the heart of the Convention, yet these regulations have not been fully operational due to limited ratification by member states. Only Annex I on oil pollution has entered into force (October, 1983). Annex II had been scheduled to enter into force in October, 1986, but that date has recently been postponed to an as yet undetermined time. Annexes III, IV and V, the so-called "optional" annexes, have not yet received sufficient ratifications to enter into force.

An important factor of MARPOL that may partly compensate for failure by all member states to ratify the annexes is that it permits enforcement of its provisions with respect to "non-convention vessels." Thus, MARPOL's provisions will be implemented on a broad basis even if only the minimum necessary ratifications are forthcoming to trigger entry into force.

A primary focus of recent developments in MARPOL is the effort within the Marine Environment Protection Committee (MEPC) of IMO to encourage ratification by member states. At the twentieth session of MEPC (MEPC 20), held earlier this month, technical and financial difficulties involved in implementation of the annexes were discussed.

With respect to Annex II, for example, the Committee decided to postpone its entry into force so as to allow time to agree upon amendments to those parts which are the source of difficulty. One problem associated with the implementation of Annex II is the necessity for establishment of shore reception facilities and treatment plants for liquid chemical wastes. It appears that the facilities necessary to effectively implement Annex II will not be available by 1986. Entry into force of Annex II was originally delayed to provide adequate time for construction of reception facilities, but states and interested parties have not acted quickly enough to satisfy the expected demand. The amendments under consideration for Annex II are designed, in part, to reduce the need for reception facilities as one solution to the problem. A vote on the adoption of these amendments will be taken at MEPC 21, in addition to the designation of a new date for entry into force of Annex II.

With regard to Annexes III, IV and V, efforts are underway to resolve possible obstacles to ratification, since these annexes have received less support than Annexes I or II. On the basis of responses to questionnaires addressed to member states, amendments to these annexes will likely be proposed. While recognizing the technical and financial difficulties involved in implementation of the annexes, efforts to accommodate these concerns present the danger that the substantive requirements under the annexes will be unduly eroded under the guise of necessity, and that they will undercut the efficacy of the environmental controls. A distinction will need to be made between revisions that undermine the environmental protection requirements in order to satisfy marginal difficulties and those which resolve insurmountable obstacles to ratification.

Amendments to Annex I were adopted at MEPC 20. The most controversial of these concerned waivers to the separating,

filtering, and oil discharge monitoring and control equipment requirements of Regulations 15 and 16 of Annex I. As originally proposed, the amendments clearly undermined the environmental protection requirements of the annex since a ship without proper equipment is more likely to discharge oily-water mixtures in violation of the Convention. The problem was compounded by the fact that the waivers were limited to ships within twelve to fifty miles of land, risking discharges to environmentally sensitive coastal areas. The amendments, as finally adopted, were based upon a compromise proposal suggested by the U.S. delegation, which limited the waiver to certain circumstances where some means of control exists for proper enforcement.

As these and other developments unfold in relation to the ratification and implementation of MARPOL and its annexes, alterations to environmentally sound approaches should be made sparingly and without undermining the environmental protection controls mandated by the Convention.

Ocean Dumping of Radioactive Wastes

Ocean dumping is the transport of land-generated wastes by vessels or aircraft and their disposal in the marine environment. In the 1960s and early 1970s there was a growing awareness that ocean dumping could have serious adverse impact on the marine environment. Because such dumping is an activity largely peculiar to areas beyond national jurisdiction, this issue was one of the most important marine-related problems occupying the attention of participants at the 1972 Stockholm Conference on the Human Environment.

In the fall of 1972, representative from over eighty nations attended an international conference in London to address the need for a global treaty on this subject. Those meetings culminated in the International Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter ("London Dumping Convention" or "LDC"). The Convention was ratified by the United States in 1973, came into force in 1975, and to date fifty-five countries have ratified or acceded to it.

While other issues (e.g., criteria for regulation or prohibition on dumping of certain hazardous substances, incineration-at-sea, and dredge spoil disposal) are of continuing concern for the member states to the LDC, substantial time during the past two formal consultative meetings has been devoted to concerns surrounding ocean disposal of radioactive wastes. The international debate over ocean disposal of radioactive wastes involves a complex mix of scientific, legal, economic, and social policy variables. It mirrors domestic radioactive-waste-disposal assessment controversies that are in progress in such nations as Great Britain and Switzerland, which have dumped low-level wastes (LLW) in recent years, and in Japan, the United States and other Nuclear Energy Agency Seabed Working Group nations that are considering LLW or high-level waste (HLW) disposal in the future. It involves the Nordic and South Pacific countries and Spain, nations with no plans for

such disposal, which question whether disposal by others is an acceptable risk to the health of the oceans.

Low-Level Wastes

Under the London Dumping Convention, HLW is one of the substances listed on the Annex I "blacklist." Its disposal is prohibited. Annex II contains substances, including LLW, which can be dumped, but only with special permits and procedures. While the United States did dump LLW from 1946 to 1970, since the 1970s the only dumpers have been Great Britain, Switzerland, Belgium, and the Netherlands. Since 1983, however, no radioactive wastes have been dumped at sea. The halt in such disposal was directly related to decisions made within the LDC.

In February, 1983, two decisions made by the LDC members set the stage for the continuing international focus on LLW: an LLW moratorium resolution was adopted (19-6, with 5 abstentions); and a scientific review of the risks associated with such disposal was initiated. Despite protestations from representatives of dumping nations at the 1983 meeting that the moratorium resolution was not legally binding, and that they intended to carry out dumping operations, a de facto moratorium exists. In the spring of 1983, the Netherlands government revised its position, announcing that it would honor the moratorium. In Great Britain, a groundswell of opposition to dumping during the moratorium arose within the transport trade unions in the spring and summer of 1983. Union boycott resolutions were adopted that black-listed the handling of any LLW slated for sea disposal. Similar transport-union boycotts were adopted in Switzerland and Belgium, and all three of those nations cancelled their proposed dumping operations.

During 1983, the LDC's international scientific review of LLW risks began to unfold. The International Atomic Energy Agency (IAEA) and the LDC secretariat -- the IMO -- gathered pertinent studies and reports from governmental parties and others. An annotated bibliography was presented to the parties at their February, 1984, meeting. In order to complete the international scientific review of risks associated with LLW dumping initiated in 1983, delegations attending this recent meeting recognized that certain terms of reference needed to be clarified. There were two principal areas of concern: the structure of the review and the substantial questions that should be addressed.

As a result of their deliberations, a nineteen-month review period was set, with the following principal components:

(1) by the spring of 1984, IAEA and the International Council of Scientific Unions (ICSU) would each select experts in pertinent disciplines, in collaboration with IMO to ensure regional balance -- twenty-two experts have been selected;
(2) a first meeting comprised of those experts would meet by October -- now scheduled for 22-25 October 1984;
(3) a report of the meeting will be distributed to LDC members and observers by November, 1984, and comments will be submitted to IMO by March, 1985;

(4) an expanded second experts meeting will be held in April, 1985, comprised of experts from the first meeting and experts from LDC members and observers, with a final report prepared by all the participants; and
(5) the final report will be distributed in advance of the next formal meeting of the LDC members, scheduled for 23-27 September 1985.

With respect to the substantive terms of reference for the review, several delegations submitted lists of questions they believed should be addressed. The written questions focused on the safety of past and projected LLW disposal at sea (quantities involved in such dumping, an inventory of all forms of radioactive wastes entering the marine environment from human sources, adequacy of modeling and monitoring to predict impacts, and the adequacy of containment measures and assessments of land-based alternatives, among other concerns) and overall conclusions (including restatements of several of the above concerns and variations on the burden of proof question: who needs to prove what level of safety or harm?) On the burden of proof issue, several of the written questions mentioned the need for the proponents of radioactive waste dumping to prove that such activities are safe. The parties agreed that the reviewing experts must respond to all the questions presented in those written submissions, as well as to any other questions the experts believe to be appropriate.

With the intersessional review in hand, the parties attending the September, 1985, LDC meeting will revisit the question that was before them in 1983 when the moratorium and review were put into effect: Should the LDC be amended to prohibit ocean dumping of any radioactive wastes? If at least two-thirds of those present agree that the answer to that question is yes, they would have to decide whether a global ban should take effect immediately or be phased-in over several years. If more than one-third of those in attendance vote no, it is nonetheless likely that such issues as tighter definitions of HLW and LLW (including de minimus quantities) and regulatory oversight (including the adequacy of monitoring requirements, dump-site locations, and land-based alternative assessments) would be further refined.

High-Level Wastes

While considerable time was devoted to the LLW risk review at the February, 1984, meeting, the major debate centered on the legality of HLW disposal into the seabed. Since the mid-1970s several industrialized nations have been assessing the feasibility of burying HLW in deep-ocean sediments. The LDC, as written, prohibits "disposal at sea" of HLW. Does disposal at sea refer to the final resting place of the wastes, or does it refer to the place where the disposal activities occur? The LDC does not address this point specifically, and HLW seabed disposal was not under consideration when the LDC was finalized in 1972.

Considerable time was devoted to achieving consensus on this issue. In the end, that effort failed; however, two basic points were agreed upon:

1. The Consultative Meeting of the Contracting Parties to the [LDC] is the appropriate international forum to address the question of the disposal of high-level radioactive waste and radioactive matter into the seabed, including the question of the compatibility of this type of disposal with the provisions of the LDC; [and]
2. No such disposal should take place unless and until it is proved to be technically feasible and environmentally acceptable, including a determination that such waste can be effectively isolated from the marine environment, and a regulatory mechanism is elaborated in accordance with the provisions of the [LDC] to govern the disposal into the seabed of such radioactive wastes.

Beyond that basic agreement, two principal blocs expressed notably different views on the legality issue. The dominant coalition of nations -- a large majority of those who stated a position -- argued that HLW disposal is covered by the LDC and, therefore, is prohibited; these nations were referred to as sponsors of the Nordic resolution. While the express language of the LDC may be unclear, those nations agreed that protection of the marine environment under the LDC requires an interpretation that views seabed disposal as "disposal at sea." In addition to their basic position that such disposal is covered and prohibited, they agreed that their interpretation applied to experimental as well as operational activities. Some of those nations discouraged further study of that disposal option, while others felt it should continue.

A minority bloc took the position that HLW seabed disposal is not covered by the LDC as now written and, therefore, is not prohibited. That resolution -- sponsored by the United States -- focused only on future regulation of operational activities, left unclear how such disposal might be permitted and regulated under the LDC, and encouraged further study. A formal vote was not taken on the legality issue but it was agreed that the Nordic and U.S. resolutions would be attached to the final report of the meeting and that the matter would be further considered at the September, 1985, meeting.

Radioactive waste disposal has crystallized attention within the world community, raising concern about the incremental and cumulative impacts of marine pollution, the adequacy of consideration given to land-based alternatives, and the broader rights and responsibilities of nations in relation to the use of the common resources of our oceans. The current review of LLW risks and the question of the legality of HLW disposal within the global framework of the LDC presents a

challenging opportunity for a diverse group of nations to forge policies and solutions that safeguard our marine resources.

Whaling Moratorium

By 1930 it was clear to both whaling and non-whaling countries that whale stocks could not survive unlimited intense hunting. Working through the League of Nations, several nations pressed for an international agreement to impose hunting limits. In 1931, twenty-two nations signed the Geneva Convention for Regulation of Whaling. While not very effective or wide ranging, the agreement was a first. Further consultations and a revised agreement followed, and at a conference held in Washington, D.C. in 1946 the current International Convention for the Regulation of Whaling was adopted. That Convention has since been ratified by thirty-eight countries.

The goal of the Convention, to safeguard whales for future generations as "great natural resources," is implemented by the International Whaling Commission. The IWC's jurisdiction extends only to those states that accept it. Member states, through appointed commissions, carry out the Commission's work at annual meetings; they are assisted by a Technical Committee and a Scientific Committee, both of which meet prior to each meeting of the entire Commission, and a permanent Secretary and staff. Another active group of participants in the workings of the IWC are nongovernmental organizations (NGOs).

The focus of much of the activity under the Convention centers around the week-long IWC meetings held each June or July. Following several years of heated negotiations, in 1982 the IWC adopted a moratorium on commercial whaling -- to take effect in 1985-86 -- by a vote of twenty-five in favor, seven against, and five member states abstaining. Underlying the moratorium decision is the belief that a total cessation of all commercial whaling is necessary in order to permit an assessment of the state of the world's whale populations during a period of no harvesting. Under the IWC, however, nations are not bound by decisions to which they object formally. Japan, Norway, and the USSR still have objections on file with respect to the moratorium, and that remains a contentious issue that has led or could lead to other domestic and international initiatives (e.g., Pelly amendment and Packwood-Magnuson amendment sanctions, and economic boycotts).

At the most recent IWC meeting, held in Buenos Aires, Argentina, in June, 1984, the IWC continued its trend of cutting annual whale-killing quotas as the moratorium deadline approaches. At this year's meeting, commercial whale quotas were reduced by 2,767 whales -- a cut from 9,390 allowed in 1984 to just 6,623 for the 1985 season. Much of the impact of the cuts fell on Japan and the USSR, due especially to the quota reductions for Southern Hemisphere minke whales. (Since 1973, when the world was conscious of what was happening to the great whales and pressure was applied to the IWC, quotas have been reduced by 85 percent.) John Byrne, Administrator of the National Oceanic and Atmospheric Administration and the current

U.S. Commissioner to the IWC, stated after the Buenos Aires meeting that "we are in the final countdown on commercial whaling," adding that there remains "much uncertainty about how several member nations will respond in the coming year and at the thirty-seventh session of the IWC next summer -- the last session before the moratorium decision takes effect."

As preparations continue for next year's meeting, to be held in Brighton, England, several outstanding questions loom large: Will Japan kill sperm whales this year. despite the zero quotas? If so, the U.S. must initiate certification procedures under the Packwood-Magnuson amendments that could lead to automatic 50 percent reductions in their fisheries allocations from U.S. waters. Will Japan, Russia, and Brazil exceed the Southern Hemisphere minke quotas? If so, the same certification procedures will be triggered. Will Japan, USSR, and/or Norway drop their objections to the moratorium during the next year? If not, will they seek a new special category (similar to that allowed for the aboriginal subsistence category) to allow continued commercial whaling? These and other issues will test the integrity of the Convention and the commitment of national governments to the protection of whales.

Regional Seas Convention

It was recognized at Stockholm in 1972 that international cooperation would be needed to surmount the world's environmental problems, but that something would have to stimulate that cooperation. Thus. the United Nations Environment Program (UNEP) was created as a mechanism to promote environmental initiatives, a self-proclaimed "environmental conscience of the world." UNEP's principal approach to the oceans' problems has been a regional one, primarily because the nature of environmental problems varies from region to region. as do cultural, socioeconomic and political factors.

To date, UNEP's efforts embrace over 120 nations through 11 Regional Seas programs. The format fosters such activities as:

(1) cooperative approaches to common problems;
(2) communications among nations, some of which are normally hostile to each other on other matters;
(3) training programs on management and response strategies (e.g., oil spills); and
(4) networks of marine science research centers, including efforts to create common data calibrations in monitoring coastal pollution

The key to success or failure of the Regional Seas Program will be the implementation and enforcement of the framework conventions and related protocols on such issues as land-based sources of pollution, ocean dumping, protected areas and critical habitats, and oil spill prevention and response. Nonetheless, the eleven programs now in place have been viewed by many as one of the major ocean-related successes of the past decade. The Law of the Sea Convention's repeated refence to

regional strategies as an effective way to address marine pollution problems reinforces this view. While recent developments can be cited in relation to each of the existing programs, this paper focuses on those two in which the U.S. is a participant: the Caribbean and South Pacific programs.

Cartegena Convention

Negotiations for the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region were completed in 1983 at Cartegena, Columbia, and signed by the United States, twelve other countries, and the European Economic Community. The Convention essentially is a framework agreement pursuant to which member states would undertake obligations to protect the marine and coastal environment of the Caribbean Sea, the Gulf of Mexico, and adjacent Atlantic Ocean areas. It addresses generally such issues as vessel-source pollution, dumping, land-based sources, seabed activities, and atmospheric pollution and contains environmental impact assessment provisions and dispute settlement mechanisms. In addition, one specific protocol was adopted simultaneously with the Convention to provide for cooperative strategies in response to oil and hazardous substances spills.

In August, 1984. the United States was the first nation to ratify the Cartegena Convention. It will enter into force thirty days after the ninth ratification has been received. The Convention offers excellent opportunities to address the diverse environmental challenges in the area. Many of the countries in the region face environmental problems resulting from under-development or from the consequences of development programs that do not take adequate account of environmental impacts. Tourism -- in some cases the principal source of income -- places special demands on fragile coastal areas. Once the Convention enters into force, the United States and others are expected to play a lead role in developing additional protocols on land-based sources of pollution. marine sanctuaries, and wildlife preservation.

Draft South Pacific Convention

During the week of 17 September 1984, and continuing through this week, representatives of the United States and other South Pacific countries have been involved in negotiations directed towards completion of a Convention for the Protection and Development of the Natural Resources and Environment of the South Pacific Region. As with the Cartegena Convention, framework provisions address a wide range of environmental concerns. There similarly is included a supplemental protocol that addresses oil spill response.

In the draft South Pacific Convention, however, there also exists substantial interest in simultaneously adopting a protocol on ocean dumping. Conclusion of that protocol -- and in particular the resolution of questions concerning geographic scope of coverage and radioactive waste disposal -- has been the major obstacle to concluding the preliminary negotiations,

convening a diplomatic conference, and opening the Convention for signature. Many of the South Pacific delegations have put forward a proposal that the Convention area includes both the 200-mile EEZs of potential parties and the contiguous high seas areas. In addition, those delegations have supported language in both the draft Convention and the draft protocol on dumping which proposes that no radioactive wastes be dumped in the Convention area.

On these outstanding issues, the United States position is at odds with the South Pacific proposals. On geographic scope, in general, the U.S. appears ready to recognize a Convention area including nations' 200-mile EEZs. As for the high seas. however. the area would include only those enclaves surrounded by EEZs. As to radioactive waste dumping, the United States opposes any regional ban, even within EEZs, absent scientific evidence which shows that it is harmful. Instead, the U.S. position is that nations in the region should rely on national measures that are limited in scope to their own EEZs.

These U.S. positions suggest support for the Law of the Sea Convention's EEZ concept, while at the same time ignoring that Convention's repeated references to the need for cooperative action among coastal states. They also fail to take account of the London Dumping Convention's admonition that "[p]arties with common interests to protect the marine environment in a given geographic area shall endeavor, taking into account characteristic regional features, to enter into regional agreements consistent with [the LDC] for the prevention of pollution, especially by dumping."

Given the domestic and international moratoriums that are in effect, a ban -- or moratorium alternative -- on radioactive waste dumping could be adopted with the understanding that the issue will be further reviewed after the international risk review and other region-specific studies have been completed. Since the U.S. has no plans to dump radioactive wastes in that region, U.S. interest are not adversely affected. Assuming that the proposal to prohibit radioactive waste dumping continues to receive widespread support from Pacific-based nations, which is likely, U.S. support for those proposals would reflect appropriate deference to the desires of those nations most directly affected. Moreover. such a position would contribute to goodwill vis-a-vis United States' relations with those nations which could serve this country well in other areas of mutual interest (e.g., port access and transit rights for defense purposes).

CONCLUSION

As these examples indicate, despite the title of this paper it is impossible to isolate specific ocean-related conventions as containing a "special environmental" focus. Every convention or other international agreement involving the oceans contains important environmental considerations. As the Law of the Sea Convention clearly reflects, all ocean activities include

concomitant environmental responsibilities. The examples cited above only serve to illustrate the problems that exist and the opportunities to forge cooperative solutions that protect our marine resources.

Nor should the choice of certain conventions for elaboration in this paper suggest any priority ranking of critical issues. Land-based sources of pollution, for example. is by all informed accounts the most serious threat to the health of the oceans. Those discharges directly affect coastal waters, where more than 90 percent of our fishery resources are located and where man's principal contact with the sea occurs. While land-based pollution is mentioned above in a Regional Seas Program context, UNEP should be applauded. encouraged and assisted in its ongoing efforts -- through its sessions of an Ad Hoc Working Group -- to develop more effective national, regional, and global strategies.

Similarly, fisheries management demands substantial attention. Today the world is faced with many depleted fishs stocks. Overfishing is a principal threat, but habitat destruction, pollution, and wastage are growing concerns. A wide range of integrated strategies is needed. and the World Conservation Strategy. mentioned earlier, provides invaluable guidance towards that end.

Our need for sustainable ocean and coastal resources and their continuing use are not short term. As we seek to balance the present with the future, we must be careful not to overload the ocean in a cumulative way. Marine and coastal ecosystems have a marvelous ability to cleanse themselves and to stay productive. But we are approaching -- and have reached or exceeded, in some instances -- the limit of abuse and mismanagement that can be assimilated without permanent damage.

Neptune's Revenge: The Ocean of Tomorrow, is an excellent book by Anne Simon just now being published that makes these points in eloquent and scientific terms. As part of the conclusion to Neptune's Revenge, Ms. Simon states that "[s]aving the ocean from ourselves will not be easy but at great cost it can be done. The cost is partly in resources of the sea that have been ours for the taking. Even more, the cost is in labor of the mind, the gigantic effort required to reverse the way we regard the ocean."

As we face the challenge of protecting, conserving, and using the oceans in a sustainable manner, domestically and internationally the developing order must be formulated to reflect the balance of concerns and interests. As part of that effort. effective opportunities for broad-based public participation by nongovernmental organizations (NGOs) should be encouraged by national governments and others. Such opportunities should include public meetings to solicit views on proposed national positions, NGO participation on national delegations, and independent observer accreditation at international meetings (with financial assistance, as appropriate).

These and other approaches could be of immense value in the effort to ensure that all interests, including those of marine environmental protection, are considered responsibly. In doing so, the developing order for our oceans will is be far more likely to have the broad base of support that will be needed to accomplish the tasks that lie ahead.

CONSERVATION AND MANAGEMENT OF THE MARINE ENVIRONMENT RESPONSIBILITIES AND REQUIRED INITIATIVES IN ACCORDANCE WITH THE 1982 U.N. CONVENTION ON THE LAW OF THE SEA

Chart presented by Douglas M. Johnston and prepared by Dalhousie Ocean Studies Programme (DOSP) in cooperation with the Commission for Environmental Policy, Law and Administration (CEPLA) of the International Union for the Conservation of Nature and Natural Resources (IUCN).

Note: The U.N. Seabed Committee (1968-1973) and the Third U.N. Conference on the Law of the Sea (UNCLOS III: 1973-1982) played an historic role in the development of the environmental law of the sea, building on and developing foundations laid by relevant existing international organizations and conventions and by the 1972 U.N. Conference on the Human Environment's Declaration of Principles and Recommendations. Through the 1982 U.N. Convention on the Law of the Sea they have contributed significantly not only to the clarification and elaboration of general environmental principles and obligations, but also to the assignment of specific environmental responsibilities and the identification of specific environmental initiatives which should be undertaken by States and international organizations at national, regional and global levels of action.

This chart surveys the various tasks which must now be discharged in fulfillment of the general environmental purposes of the UNCLOS III Convention. Of the 320 articles and eight annexes which make up the Convention, at least fifty-nine articles and three annexes (I, III and VIII) might be characterized as having an environmental significance -- almost one-fifth of the total text of the Convention. These provisions vary from the widely general to the highly particular. Taken together they form a distinguishable framework for the effective conservation and management of the marine environment in the late 20th century, a framework which, after 15 years of the most strenuous global negotiations, has the consent and support of the organized world community. Although it may be a number of years before the Convention comes into effect, the consensus achieved on environmental provisions -- in particular the early agreement on the substance of Part XII -- makes it likely that most States will wish to see effective implementation of these parts of the Convention.

Unfortunately, the environmental provisions of the Convention are spread over several different parts of the text: two in Part II ("Territorial Sea and Contiguous Zone"), two in Part III ("Straits Used for International Navigation"), nine in Part V ("Exclusive Economic Zone"), four in Part VII ("High Seas"), one in Part IX ("Enclosed or Semi-Enclosed Seas"), two in Part XI ("The Area"), thirty-eight in Part XII ("Protection and Preservation of the Marine Environment"), and one in Part XIII ("Marine Scientific Research"). The logistics of the Conference made it virtually impossible for a totally

comprehensive and internally coherent marine environmental regime to be formulated, but as a result of the collective efforts of the three Main Committees -- and especially the synthesis provided by the Third Committee -- the five main elements of such a regime have been established and, in varying degrees, developed. Of the fifty-nine provisions of environmental significance, seven are so generally worded as to encompass the entire range of activities contributing to the conservation and management of the ocean environment: namely, Articles 56, 58, 145, 192, 197, 237, and 240. Thirteen are addressed specifically to the conservation and management of living resources, including such activities as species conservation, habitat protection and living resource management: namely Articles 61, 62, 63, 64, 65, 66, 67, 117, 118, 119, 120, 123, and 234. Fourteen articles deal generally with the prevention, reduction, and control of marine pollution: namely Articles 194, 195, 196, 198, 199, 200, 201, 202, 203, 204, 205, 206, 235, and 236. Fourteen articles are designed to cover the specific problems of transit management (i.e., vessel-source pollution): namely Articles 22, 23, 42, 43, 211, 217, 218, 219, 220, 221, 225, 226, 227 and 233. The remaining eleven articles focus on the environmental management of other activities which may have an adverse effect on the marine environment: namely Articles 150, 207, 208, 209, 210, 212, 213, 214, 215, 216, and 222. In view of the variety of these fifty-nine environmental provisions and their variance from the widely general to the narrowly specific, the tasks of "implementation" and "follow-up initiative" must be broadly defined.

In this chart the primary emphasis is placed on specific (or sectoral) responsibilities and required initiatives: that is, on the implementation tasks or follow-up initiatives which arise under the four more specific sectors. Accordingly, the chart merely identifies the seven most generally worded provisions. But it should be emphasized that the commentaries and recommendations in the final two columns are to be understood and interpreted in light of the principles of the new environmental law of the sea contained in these seven general provisions.

NOTES ON CHART ORGANIZATION

1. Sectors

The chart is divided into five parts, based on the sectors discussed in the introduction:

I. Conservation and Management of Living Resources
II. Pollution Prevention, Reduction and Control -- General Measures
III. Transit Management
IV. Environmental Management of Other Activities
V. General Provisions

Each part is divided into four sections, based on the different types of activity or problem addressed by the articles. Under Prescribing Behaviour those articles which dictate or recommend specific or general responsibilities of States are included. In the second section, Establishing/Affirming Jurisdiction, articles which create or affirm the jurisdiction of a State or organization over a particular matter are analyzed. The third division, Establishing Criteria and Standards, considers those articles which either prescribe a standard for State and organizational actions or provide the general criteria upon which more specific standards should be based. Finally, in Establishing Mechanisms, articles which promote or require the creation of international mechanisms of cooperation and management are discussed. Because many articles are multi-purpose in nature, most are included in two or more sections.

2. Columns

The chart includes seven columns, briefly described below.

Column 1, "Purpose/Effect of Provision": This column briefly describes the purpose of the article under consideration, but no attempt is made to precisely define the legal effect of the provision.

Column 2, "Level": The possible levels at which the suggested activity would occur are noted in column 2. These include the national, subregional, regional and global levels.

Column 3, "Assignee(s)": The assignees for the purpose of follow-up may be either States or international organizations. The terms "primary", "secondary" and "tertiary" are used to describe the types of assignment which are possible under the Convention. A primary assignee, usually but not always a State, is that charged with the responsibility for fulfilment of an obligation under an article. Secondary assignees, always international organizations, are those which are necessary to the completion of an assigned activity, even though not primarily responsible. For example, where States are required to work "through the competent international organization," that organization would be designated as a secondary assignee. The final category, the tertiary assignees, includes those instances in which the assistance of an international organization will be required in the fulfilment of individual State obligations at the national rather than the international level. (In a number of the secondary and most of the tertiary assignments the obligation or necessity for participation is inferred from the general effect of the article.)

Column 4, "Reference": Column 4 lists the articles referred to each entry.

Column 5, "Appropriate International Organization": The listings in column 5 are by no means exhaustive, particularly insofar as regional organizations are concerned. However, the organizations listed do provide examples of the types of organizations which might be considered as assignees under the various articles.

Column 6, "Required Initiative/Follow-up": Column 6 suggests initiatives and activities which may be required of both States and international organizations in the implementation of the provisions of the Convention. These suggestions range from the very general to the specific, depending upon the terms of the article considered.

Column 7, Comments/Recommendations: The Comments and Recommendations column includes references to existing activities in certain sectors and in some cases notes as to difficulties in the articles themselves. Suggestions as to present initiatives in States and organizations would be particularly helpful, as such activities are often not widely publicized.

I. CONSERVATION AND MANAGEMENT OF LIVING RESOURCES

Purpose/Effect of Provision	Level	Assignee(s)	Reference	Appropriate International Organization (I.O.)	Required Initiative/Follow-up	Comments/Recommendations
1. Prescribing Behaviour						
a) Determination of total allowable catch (TAC) in EEZ	national	primary-States tertiary-I.O.	Art. 61(1)	global-FAO regional-e.g., NAFO, GFCM, IPFC, EC	States-enact national legislation and regulations to establish TAC I.O.-provide technical assistance, data in determination of TAC	By Art. 61 the TAC is to be set at national level, but it is possible for this to be done regionally, as in the EC
b) Duty to ensure no over-exploitation of EEZ living resources	national	primary-States tertiary-I.O.	Art. 61(2)	global-FAO, ICES, IOC, IOI regional-e.g., NAFO, IPFC, GFCM	States-enact national legislation/regulations I.O.-provide technical assistance, data transfer, training of managers, establishment of guidelines and criteria for management	I.O. role crucial for developing States. Non-governmental organization (NGO) role important in coordination (e.g. ICOD) and administration (e.g. IOI). Role for regional I.O.s, see IPEC 1974 Symposium on Economic and Social Aspects of the Planning and Development of National Fisheries, and associated recommendations.
c) Determination of harvest capacity, grants of access to surplus	national	primary-States secondary-I.O.	Art. 62(2)	As above, I.1.(b)	States-i) determine surplus of resources over capacity ii) negotiate arrangements for access to surplus	Special preference for developing States in access arrangements (e.g. Arts. 69 and 70) should be monitored by FAO

					I.O.-i) assist in determination of surplus (as in I.1.(b), above) ii) facilitate negotiation of access arrangements	
d) Duty to ensure conservation of anadramous species within EEZ	national	primary-States secondary-I.O.	Art. 66(2)	e.g. ICES (ANACAT), NASCO, IPSFC, FAO	States-i) enact national legislation/regulations on anadramous conservation ii) establish TAC in consultation with other States I.O.-i) provide technical assistance, data exchange, creation of criteria in establishment of TAC ii) facilitate agreements on TAC	e.g. ICES (ANACAT) provides information, conducts research on salmon stocks within its region; NASCO has regional mandate in research, conservation and facilitation of international agreement on salmon management FAO legal assistance programme provides expertise in drafting national regulations
e) Fishing for anadramous species to be within EEZ	national, regional	primary-States	Art. 66(3)(a)	As above, I.1(d)	States-enact legislation to control fishing fleets under their flag	Applies except where economic dislocation results to States other than State of origin. See I.4(g), below.
f) Catadromous harvesting only within EEZ	national	primary-States	Art. 67(2)		States-enact legislation to control EEZ and their own distant-water fleets	See below, I.3(g), for role of I.O.s in specific catadromous measures

g) Duty to take measures respecting nationals and high seas resource exploitation	national, regional, global	primary-States secondary-I.O.	Art. 117	global-e.g. FAO, ICES regional-e.g. NEAFC	States- I) Impose restrictions on nationals; II) seek agreement with other states I.O.-global: facilitate agreement, monitor exploitation, exchange data. regional: facilitate agreement, propose regulations	e.g. of I.O. activity: Regional-NEAFC mandate to propose regulations for fishing beyond national limits Global-ICES Advisory Committee on Fishery Management provides liaison among regional fisheries organization -FAO legal assistance programme, see I.1(d), above. Note-see also provisions on highly migratory species, marine mammals, I.3(e), I.2(e), below.
h) Duty of non-discrimination against foreign fishermen respecting high seas measures	national	primary-States	Art. 119(3)		States-reconcile national legislation with non-discrimination goal	
i) Duty of cooperaction in semi-enclosed seas	national, regional	primary-States secondary-I.O.	Art. 123	Both Reg. Orgs. and Global Programmes e.g. UNEP Reg. Seas, Prog., ICES (Baltic Fish Committee), GFCM, IPFC, FAO, UNDP, EC	States-seek regional agreements on conservation/management of semi-enclosed seas I.O. - Facilitate agreements, initiate regional studies and diplomatic conferences, funding of regional programmes	Current I.O. activities include UNEP Reg. Seas Prog.; Barcelona Convention (UNEP Reg. Seas and early FAO initiative); IPFC South China Sea Project on Fisheries Development (with FAO, UNDP involvement)

2. Establishing/ Affirming Jurisdiction						
a) Jurisdiction of coastal State over EEZ fishing	national	primary-States tertiary-I.O.	Art. 62(4)	global-e.g. FAO, ICOD, IOI regional-e.g. ICSEAF, NAFO, GFCM	States-i) ensure nationals comply with measures of coastal states ii) establish EEZ jurisdiction and enact regulations I.O.-i) promote harmonization of legislation ii) provide technical assistance in drafting legislation, training of personnel, technology transfer iii) establish international minimum standards	Article indicates acceptable range of EEZ conservation measures See, e.g., ICSEAF role in recommendations to member States respecting technical fishing requirements
b) Coastal State and I.O. authority to regulate marine mammal exploitation in EEZ not reduced by Convention	national, regional global	primary-States primary-I.O.	Art. 65	global-IWC, ICES (MMC), UNEP, FAO, IUCN regional-NPFSC		Reference to "competence of an international organization," seems to invoke present role of IWC Require global plan of action for the conservation and management of marine mammals
c) Jurisdiction over anadromous stocks vested in State of origin	national	primary-States	Art. 66(1)		States-confirm or establish such jurisdiction through adoption of legislation and regulations	

d) Jurisdiction over catadromous species vested in coastal State where majority of life-cyle spent	national	primary-States	Art. 67(1)		States-confirm or establish jurisdiction by national legislation	For detailed provisions, see below, I.3(g), 4(k).
e) Flag State and I.O. authority to regulate marine mammal exploitation on high seas not reduced by Convention	national, regional, global	primary-States primary-I.O.	Art. 120	See above, I.2(b)	See above, I.2(b)	Art. 120 applies to Art. 65 provisions respecting high seas
f) Special environmental jurisdiction over ice-covered areas of EEZ (and territorial sea) vested in coastal State	national	primary-States	Art. 234		States-establish jurisdiction through adoption, legislation and regulations	See below, I.3(l), respecting criteria to be applied
3. Establishing Criteria And Standards						
a) Use of "best scientific evidence available" in conservation and management of EEZ living resources	national	primary-States primary-I.O.	Art. 61(2)	e.g. ICES, WDC, IOC, FAO	States-obtain and apply best available scientific evidence I.O.-cooperate in providing relevant scientific data to States, especially to developing States	

b) Criteria for definition of maximum sustainable yield	national, subregional, regional, global	primary-States secondary-I.O.	Art. 61(3), (4)	global-FAO regional-e.g. NAFO, GFCM, IPFC, ICES (Baltic Fish Cttee.), ICSEAF, NEAFC, EC	States-establish and apply standards in accordance with Article I.O.-define and assist in application of minimum international standards	-Most regional fisheries organizations engage in this activity -EC role extends further, see I.1(a), above
c) Promotion of optimum utilization objective	national	primary-States	Art. 62(1)		States-ensure legislation in harmony with general objective of optimum utilization	
d) Criteria for access of other States to EEZ living resources	national	primary-States secondary-I.O.	Art. 62(3)	Primarily regional, e.g. NAFO, IPFC, GFCM	States-negotiate access agreements in accordance with criteria I.O.-facilitate and promote agreements in accordance with criteria	Criteria should include significance of resource to coastal State, involvement of land-locked States, requirements of developing States in region, economic dislocation to fishing States
e) Cooperation in promoting optimum utilization of highly migratory species	subregional, regional	primary-States secondary-I.O.	Art. 64	Regional I.O.s, e.g. NAFO Specific- e.g. ICCAT, IATTC	States, I.O.-adoption of regional, and possibly subregional, agreements on optimum utilization of affected species	
f) Criteria for anadromous species conservation and management	national, regional, global	primary-States secondary-I.O.	Art. 66(3), (a), (b), (c)	e.g. ICES (ANACAT) NASCO, IPSFC	States-i) seek agreement ii) enact legislation in accordance with criteria	Criteria should include minimization of economic dislocation, normal catch of fishing State, mode of operations of fishing State

					I.O.-i) facilitate agreements ii) advise on legislative requirements	
g) Criteria for agreement on catadromous species conservation and management	subregional, regional	primary-States secondary-I.O.	Art. 67(3)	Global-FAO, ICES (ANACAT) Regional-e.g. NAFO, GFCM, IPFC	States-pursue conservation and management agreements; incorporating criteria I.O.-i) provide data, assist in establishing criteria ii) facilitate agreements	Criteria to include rational management" and responsibilities of coastal States
h) Criteria for allowable catches, other conservation measures on high seas	national, global	primary-States tertiary-I.O.	Art. 119(1) (a) (b)	Global-FAO, IOC, WDC Regional- NAFO, etc.	States-incorporate criteria in national regulations I.O.- i)assist where necessary in harmonization of national legislation ii) participate in establishing international criteria	i) Possible IOC role in basic research preparatory to establishing standards ii) Possible WDC, ASFIS role in disseminating information iii) Criteria should include use of "best scientific evidence," goal of maximum sustainable yield, fishing patterns, needs of developing States
i) Criteria for regulations respecting ice-covered waters of EEZ	national	primary-States	Art. 234	Global-CCAMLR, WDC ASFIS, IMO	States-apply criteria in national legislation/regulations I.O.-i) provide scientific data ii) clarify definition of standards, esp. for navigation	i) Criteria should include: "due regard for navigation," protection and preservation of marine environment, use of best scientific evidence" ii) WDC, ASFIS have potential role in distribution of data. IMO should be consulted on navigational requirements

4. Establishing Mechanisms						
a) Duty to cooperate to ensure proper conservation and management measures	subregional, regional, global	primary-States primary-I.O.	Art. 61(2)	Global-e.g. FAO, UNEP, IOI, ICOD, UNDP, WDC Regional - e.g. NAFO, EC, NEAFC	States-cooperate with I.O.s in pursuance of conservation and management measures I.O.-I) provide training facilities, technical assistance II) facilitate research and data exchange activities	I) I.O. role especially important with respect to developing States for training (e.g. IOI), funding (e.g. UNDP, ICOD)
b) Exchange of fish stock data	subregional regional, global	primary-States primary-I.O.	Art. 61(5)	global-ASFIS (FAO-IOC), WDC, ICES (Stats. Cttee.) regional-e.g. IPFC, NAFO, etc.	States-contribute data to competent I.O. I.O.-disseminate and, where appropriate, collect data	I) Central part of FAO mandate respecting fisheries II) Most I.O.s have some form of dissemination/ publication function
c) Due notice of conservation and management regulations	national	primary-States tertiary-I.O.	Art. 62(5)	e.g. FAO, UNEP, IMO	States-publish, distribute notices I.O.-assist in distribution	
d) Cooperation in the conservation and management of straddling stocks	subregional, regional	primary-States secondary-I.O.	Art. 63(1), (2)	regional organizations, e.g. IPFC, NAFO, GFCM, ICSEAF, NEAFC	States-seek agreement on coordinated conservation and development measures I.O.-facilitate agreements	I) Possible subsidiary I.O. role in setting up pilot projects in developing States (ICOD, UNDP) II) Article omits global level, which may be relevant to stocks extending beyond limits of national jurisdiction

e) Establishment of international organizations for conservation and management of highly migratory species (if necessary)	regional, global	primary-States secondary-I.O.	Art. 64(1)	e.g. FAO, UNEP	States-cooperate to establish such organizations where necessary I.O.-assist where required/requested	I) Global organizational role to assist in creation of specialized commissions, committees II) Some organizations already exist, e.g., IATTC, ICCAT
f) Cooperation in the conservation and management of marine mammals	regional, global	primary-States secondary-I.O.	Art. 65	Global-IWC, ICES (MMC), FAO, UNEP, IUCN Regional-e.g. NPFSC	States-cooperate in research, management of marine mammals I.O.-I) facilitate cooperation, agreement II) participate in research, management activities	See Art. 120 for application of Art. 65 to high seas See above, I.2(b), for comment on global action plan
g) International consultation on anadromous fishing beyond EEZ	regional, global	primary-States secondary-I.O.	Art. 66(3) (a)	e.g. ICES (ANACAT), IPSFC, NASCO	States-consult and agree on anadromous fishing beyond EEZ I.O.-I) provide technical assistance in setting criteria II) facilitate agreement III) conduct research activities	
h) Cooperation in the minimization of economic dislocation for States fishing anadromous stocks	regional, global	primary-States secondary-I.O.	Art. 66(3) (b)	As above, I.4(g)	States (States of origin)-cooperate with fishing States I.O.-facilitate cooperation and agreements	

I) Enforcement of anadromous regulations to be by agreement	subregional regional, global	primary-States secondary-I.O.	Art. 66(3) (d), 66(5)	As above, I.4(g)	States-seek agreement on implementation, enforcement of national regulations I.O.-facilitate agreements	
J) Cooperation in the conservation, management of anadromous stocks crossing EEZ	subregional regional	primary-States secondary-I.O.	Art. 66(4), (5)	As above, I.4(g)	States-cooperate, seek agreement on conservation and management of stocks I.O.-i) facilitate cooperative arrangements ii) provide criteria, scientific data for management agreements	
k) Management of migrating catadromous stocks to be by agreement	subregional, regional	primary-States secondary-I.O.	Art. 67(3)	e.g. ICES (ANACAT)	States-negotiate agreements on catadromous species conservation and management I.O.-i) facilitate agreements ii) provide criteria, scientific data for management agreements	
l) Establishment of international organizations for the conservation and management of high seas resources	subregional, regional	primary-States secondary-I.O.	Art. 118	e.g. FAO, UNEP, IOC	States-cooperate in establishing subregional, regional organizations for high seas resource management	i) role for global I.O.s in setting up regional, subregional bodies, see, e.g. UNEP Reg. Seas Prog.

					I.O.-promote and assist in creation of such organizations	11)NEAFC, e.g., has mandate similar to that proposed for new organizations
m) Distribution of relevant conservation and management data	subregional, regional, global	primary-States primary-I.O.	Art. 119(2)	Global-WDC, FAO, UNEP, IOC, ICES (Stats. Cttee., Publications Cttee.), ASFIS (Joint IOC-FAO) Regional-e.g. NAFO, IPFC, GFCM	States-collect, contribute and exchange data on conservation of fish stocks I.O.-arrange distribution of data from States and I.O.s	Essential part of many I.O. mandates
n) Cooperative management of semi-enclosed seas	subregional, regional	primary-States secondary-I.O.	Art. 123	e.g., FAO, UNEP, IPFC (South China Sea Project), ICES (Baltic Fish Cttee.), IBFC, EC	States-negotiate arrangements for cooperative management of semi-enclosed seas I.O.-promote and facilitate regional arrangements, e.g. through regional umbrella conventions	1) See activities of UNEP Regional Seas Programme including regional umbrella conventions (e.g. Barcelona Conventions)

II. POLLUTION PREVENTION, REDUCTION AND CONTROL - GENERAL MEASURES

Purpose/Effect of Provision	Level	Assignee(s)	Reference	Appropriate International Organization	Required Initiative/ Follow-up	Comments/Recommendations
1. Prescribing Behaviour						
a) Duty to harmonize policies on pollution prevention, reduction and control	subregional, regional, global	primary-States secondary-I.O.	Art. 194(1)	global-e.g. IMO, IMC, IOC, UNEP regional-e.g. Oslo Commission, Paris Commission, UNEP Reg. Seas Prog.	States-cooperate in harmonization of policies I.O.-initiate and assist in harmonization of policies	I.O. role critical for developing States
b) Duty not to allow extra-jurisdictional damage from pollution arising within jurisdiction	national	primary-States tertiary-I.O.	Art. 194(2)	e.g. UNEP, IOC, IMO	States-enact national legislation for monitoring and damage prevention schemes I.O.-provide technical assistance in legislative drafting and monitoring/damage prevention schemes	I.O. role critical for developing States
c) Duty to refrain from unjustifiable interference with permissible activities of other States	national	primary-States secondary-I.O.	Art. 194(4)	IMO, FAO, UNEP	States-reconcile national legislation with this goal I.O.-i) promote agreement on definition of "interference" ii) assist in dispute settlement	Provisions will most directly affect fishing and transit uses by other States UNEP Wkg. Group on environmental law and Reg. Seas Prog. may have role in developing dispute settlement procedures

d) Duty not to transfer or transform damage or hazards	national	primary-States tertiary-I.O.	Art. 195	e.g. UNEP, SCOPE, GESAMP (GIPME), IMO	States-ensure that national pollution measures do not result in transference or transformation of damage or hazard I.O.-perform and promote research and disseminate information respecting transference and transformation of hazards	Both IMO (under the London Convention) and the Oslo Commission deal with this issue through regulation of waste incineration
e) Duty to control pollution resulting from use of technologies or introduction of new species	national	primary-States tertiary-I.O.	Art. 196	e.g. UNEP, IOC, SCOPE, GESAMP (GIPME), FAO	States-enact appropriate regulations I.O.-perform research and disseminate information on use of technologies and introduction of new species	
f) Duty to notify States, I.O.s, of damage or threat of damage to the marine environment	national	primary-States tertiary-I.O.	Art. 198	e.g. IMO, UNEP, FAO	States-establish notification systems I.O.-assist in assessment of nature and extent of threats	"Competent international organizations" to be informed. This may include regional organizations.
g) Duty to grant preference to developing states in I.O. services, funding respecting pollution control	subregional, regional, global	primary-I.O.	Art. 203	All I.O.s dealing with technical assistance, services, funding re marine pollution	I.O.-grant preference as required by Article	Some I.O.s are presently mandated to grant such preference, e.g. UNEP, WHO, IMA, IABO, ACMRR (FAO), GFCM

h) Duty to monitor effects of activities likely to pollute marine environment	national	primary-States tertiary-I.O.	Art. 204(2)	e.g. UNEP, IMO, GESAMP (GIPME), ICES, IOC (MARPOLMON), and regional organizations	States-establish surveillance systems I.O.-i) assist in establishing systems ii) provide information gathered directly by I.O.	i) Although duty is national, some I.O.s carry out monitoring, e.g. IMO, Oslo Comm., Paris Comm. (all through ICES). Bonn Agreement monitors oil, chemical pollution in North Sea. ii) e.g. of possible regional role, see IPFC 1976 report on Preliminary Outline of the Pollution of Seawater of East Asia.
i) Duty to publish and distribute results of monitoring	national, regional, global	primary-States primary-I.O.	Art. 205	global-e.g. ICES (Publications Cttee.) GESAMP, UNEP, IAPSO, WDC, IOC regional-e.g. GFCM, PSA	States-publish reports and provide to I.O.s I.O.-reproduce and distribute reports	Distribution and publication of reports is a priority of most I.O.s
j) Duty to assess potential effects of planned activities in the marine environment	national	primary-States primary-I.O. tertiary-I.O.	Art. 206	As above, and IABO, SCOPE	States-establish marine environmental assessment systems and publish results I.O.-i) primary duty to distribute published results ii) tertiary duty to assist in establishment of assessment systems	i) Read with Article 205 ii) I.O. assistance of critical importance to developing States iii) See comment at II.1 (h) respecting direct role for some I.O.s

k) Duty to ensure that domestic recourse is available for prompt and adequate compensation or other relief" for damage to the marine environment caused by nationals	national	primary-States	Art. 235(2)	States-reconcile national legislation with the objective of enabling legal recourse for damage to the marine environment	See Art. 235(1) for the general responsibility of States at international law to fulfill obligations to preserve and protect the marine environment For e.g. of regional responses, see Nordic Environmental Protection Convention and N.W. Atlantic Civil Liability Convention
l) Duty to ensure that warships and government vessels and aircraft act in a manner consistent with the Convention	national	primary-States	Art. 236	States-take measures to ensure such vessels and aircraft act "so far as is reasonable and practicable" in a manner consistent with the Convention	The general purpose of the Article is to exempt such vessels and aircraft from the effect of the marine environmental provisions of the Convention
2. Establishing/ Affirming Jurisdiction N.A.					See "Transit Management," Infra

3. Establishing Criteria and Standards						
a) Duty to prevent, reduce and control pollution	national	primary-States tertiary-I.O.	Art. 194(1)	e.g. UNEP, FAO, IOC, UNDP, ICOD, IMO	States-utilize "best practicable means... in accordance with their capabilities" in pursuing the general duty I.O.-assist in improving capabilities of States where necessary	I) Establishes a criterion based on relative abilities of States to fulfill the general duty II) Duty is national, but regional I.O.s do take part at present; e.g. Oslo Comm., Paris Comm., UNEP Reg. Seas Prog.
b) Duty to ensure that national measures deal with all sources of marine pollution	national	primary-States tertiary-I.O.	Art. 194(3)	As above	States-reconcile national legislation with the general objective of comprehensiveness I.O.-provide technical assistance and funding as necessary	Requires measures which are designed to "minimize" a number of specific forms of marine pollution
c) Duty to take measures respecting fragile eco-systems and certain habitats	national	primary-States tertiary-I.O.	Art. 194(5)	e.g. UNEP, IOC, FAO, WWF, IUCN, IMO	States-incorporate measures in national regulations I.O.-conduct scientific research, technical assistance in preparation of regulations	I) Article appears to neglect potential importance of subregional, regional level II) Possible connection to IMO through "special areas" provisions in OIPOL and MARPOL Conventions.

d) Duty to establish criteria for the formulation of rules and standards for pollution control	national, regional, global	primary-States secondary-I.O.	Art. 201	e.g. UNEP, IMO, IOC, ICES	States-cooperate in establishing criteria I.O.-I) facilitate cooperation II) provide technical assistance in establishing draft criteria, guidelines	See comment (II) at II.3(a) above on existing regional I.O. activity
e) Duty to observe, measure and evaluate effects of pollution in the marine environment	national, regional, global	primary-States secondary-I.O.	Art. 204(1)	As above	States-cooperate in observation, measurement and evaluation I.O.-I) facilitate cooperation II) disseminate information III) provide technical assistance in the development of monitoring, evaluating systems	I) States are under a duty to apply "recognized scientific methods" II) See comment (II) at II.3.(a), above, on existing regional I.O. activity
4. Establishing Mechanisms						
a) Duty to notify of imminent or actual damage to the marine environment	regional, global	primary-States secondary-I.O.	Art. 198	e.g. IMO, UNEP	States-notify other States and "competant I.O.s of imminent or actual damage I.O.-distribute information received	Bonn Agreement is e.g. of international mechanism for monitoring. See II.1(h), above

b) Duty to establish contingency plans for marine pollution incidents	regional, global	primary-States primary-I.O.	Art. 199	global-e.g. UNEP, IMO regional-e.g. GFCM, IPFC	States-cooperate in the development of contingency plans I.O.-same	Possible role for private associations, e.g. INTERTANCO, ICS, IUMI, INSA
c) Duty to conduct research, exchange data on marine pollution	national, regional, global	primary-States secondary-I.O.	Art. 200	global-e.g. IAPSO, IOC, ICES, WDC, UNEP, GESAMP, UNDP regional-e.g. PSA, ICSEM, IMA	States-cooperate in research and data exchange I.O.-i) perform and promote research ii) facilitate data exchange	I.O.s may be called upon to fund programmes in developing States Oslo and Paris Commissions are involved in this function
d) Duty to develop international criteria and standards	national, regional, global	primary-States secondary-I.O.	Art. 201	e.g. UNEP, IOC, IMO, ICES	States-participate and cooperate in development of international criteria I.O.-i) promote and develop criteria ii) facilitate cooperation among States	i) Possible regional role where unique conditions exist ii) See above II.3(d)
e) Duty to promote programmes of marine environmental assistance to developing States	regional, subregional, global	primary-States secondary-I.O.	Art. 202	e.g. UNEP, FAO, IMO, UNESCO, UNDP (funding), IOI (training), ICOD (funding)	States-Fund and cooperate in programmes of assistance to developing States I.O.-funding and programme development	Article is directed at a broad range of training, equipment supply and advisory functions related to marine environmental capabilities

f) Duty to monitor risks and effects of pollution	regional, global	primary-States secondary-I.O.	Art. 204(1)	e.g. UNEP, IMO, GIPME, ICES, IOC (MARPOL MON)	States-act directly or through I.O.s to improve monitoring I.O.-i) facilitate State cooperative efforts ii) perform research and provide technical assistance	
g) Duty to publish and distribute reports	regional, global	primary-States primary-I.O.	Art. 205, 206	As above	States-prepare reports and provide to I.O.s I.O.-maintain collections and distribute reports	Most organizations make publication and distribution of reports a priority
h) Duty to co-operate in the implementation and development of international law respecting responsibility for damage to the marine environment by pollution	national, regional, global	primary-States secondary-I.O.	Art. 235(3)	IMO, UNEP	States-i) implement international standards in domestic legislation ii) cooperate in the further development of international law in this area I.O.-facilitate agreement on international standards	i) See e.g., the IMC 1977 draft Convention on Platform Drilling Oil Pollution Liability ii) Possible role for private associations, e.g. TOVALOP iii) See e.g. the 1978 International Convention on Civil Liability for Oil Pollution Damage and the International Fund for Oil Pollution Damage. See also, IUMI Edinburgh Conference on Liability for Marine Pollution (1979). iv) UNEP Wkg. Group on environmental law v) See N.W. European Offshore Pollution Convention (not in force)

III. TRANSIT MANAGEMENT

Purpose/Effect of Provision	Level	Assignee(s)	Reference	Appropriate International Organization	Required Initiative/ Follow-up	Comments/Recommendation
1. Prescribing Behaviour						
a) Flag State duty to regulate nuclear-powered ships and ships carrying nuclear or other inherently dangerous substances	national	primary-States secondary-I.O.	Art. 23	UNEP, IAEA, IMO	States-i) ensure that such vessels flying their flag carry documents and observe any special precautionary measures while in innocent passage through the territorial sea of other States ii) seek agreement on international standards respecting such vessels I.O.-facilitate agreement on international standards for the regulation of such vessels	
b) Flag State duty to regulate pollution from vessels	national	primary-States secondary-I.O.	Art. 211(2)	e.g. IMO, UNEP	States-adopt regulations controlling vessel source pollution I.O.-promote and assist in creation of international standards. See below III.3(d)	Possible role for private associations, e.g. INTERTANCO, ICS, OCIMF, in development of higher standards

c) Flag State duty to ensure vessel compliance with cooperative pollution control schemes	national	primary-States	Art. 211(3)		States-adopt regulations requiring vessels to comply with cooperative pollution control schemes of other States respecting port entry requirements	States should provide directories of national port entry requirements to ships flying their flags
d) Duty to determine whether "special circumstances" exist to justify mandatory pollution control measures	global	primary-I.O.	Art. 211(6) (a)	UNEP, IMO, IOC	I.O.-establish procedures for evaluation of national conditions and special measures	I.O. to determine whether conditions justify extraordinary control measures
e) Duty to publish limits of "special control" areas	national	primary-States secondary-I.O.	Art. 211(6) (b)	UNEP, IMO	States-publish limits I.O.-assist in distribution	See above comments under III.1(c)
f) Flag State enforcement of applicable international rules	national	primary-States tertiary-I.O.	Art. 217	IMO, IMC, UNDP, UNESCO (funding), ILO	States-ensure vessel compliance with international standards I.O.-i) provide technical assistance in legislative drafting ii) participate in creation of international minimum standards	i) States must: "ensure compliance," investigate at request of other States, institute proceedings where "appropriate," inform requesting State and competent I.O. of outcome of investigation. See below III.3(g) re standards set by Article. ii) Possible role for regional organizations, e.g. ICFBS provides vessels with pollution prevention manuals

					iii) assist in development of inspection capabilities	
g) Port State duty of compliance with investigation requests	national	primary-States	Art. 217		States-comply with requests of other States to investigate pollution incidents relating to vessels in port	Port State must also transmit records" of investigation upon request
h) Port State duty to take measures relating to seaworthiness	national, global	primary-States secondary-I.O.	Art. 219	UNEP, IMO	States-take measures to prevent vessels sailing where unseaworthiness threatens damage to the marine environment I.O.-promote, assist in development of international minimum standards relating to seaworthiness	States should consider developing their inspection services. See Paris Memorandum, 1982, which sets targets for ship inspection in 14 States in N.W. Europe
i) Flag State duty to ensure vessel compliance with information requests from coastal States	national	primary-States	Art. 220(4)		States-enact regulations requiring vessel compliance with information requests	Refers to requests under Art. 220(3) respecting pollution incidents in territorial sea, EEZ
j) Duty of non-discrimination respecting foreign vessels	national	primary-States	Art. 227		States-reconcile national regulations with non-discrimination goal	Paris Memo., III.1.(h) above, requires non-discrimination

2. Establishing/ Affirming Jurisdiction					
a) Coastal State jurisdiction to require use of sea lanes and traffic separation schemes	national	primary-States	Art. 22(1), (2)	States-assert jurisdiction in accordance with provisions of Article	See below, III.3(a) re standards to be applied
b) Jurisdiction of States bordering straits used for international navigation to regulate respecting pollution control	national	primary-States	Art. 42(1) (b)	States-assert jurisdiction over the prevention, reduction and control of pollution in such straits	I) Art. 233 applies the enforcement measures in Arts. 223-232 to any regulations enacted under this Article II) Art. 43 requires cooperation of States bordering straits in the pursuance of this objective III) Art. 42(3) requires that any measures taken
c) Coastal State jurisdiction over pollution control in territorial sea, EEZ	national	primary-States	Art. 211(4), (5)	States-adopt regulations for prevention, reduction and control of pollution in territorial sea, EEZ	See below III.3(b)(e), respecting standards to be applied
d) Coastal State jurisdiction to exceed international rules and standards where "special circumstances" exist	national	primary-States	Art. 211(6)	States-act where "reasonable grounds" exist to exceed international standards	

e) Flag State jurisdiction to enforce applicable international rules and standards	national	primary-States	Art. 217			States-no follow-up required; affirmation of existing jurisdiction. See below III3(g), respecting standards of application
f) Port State jurisdiction for pollution control purposes and respecting seaworthiness	national	primary-States	Art. 218, 219		State-assert pollution control, seaworthiness jurisdiction over foreign vessels voluntarily in port	See above III.1(h)
g) Port and coastal State jurisdiction to inspect and institute proceedings against vessels in port or navigating in territorial sea, EEZ	national	primary-States	Art. 220		States-assume jurisdiction in instances of pollution in territorial sea, EEZ	I) Permits physical inspection II) Jurisdiction limited by requirement that "international standards" be met
h) Coastal State jurisdiction in cases of maritime casualties	national	primary-States secondary-I.O.	Art. 221	IMO, PIANC	I.O.-facilitate and promote international conventions on procedures and rules respecting maritime casualties	I) Affirmation of coastal State jurisdiction II) See below III.3(k), re standards to be applied

3. Establishing Criteria and Standards						
a) Criteria for the establishment of sea-lanes and traffic separation schemes	national	primary-States secondary-I.O.	Art. 22(3)	IMO, PIANC	States-incorporate criteria in national sea-lane and traffic separation schemes I.O.-make recommendations as to designation of sea lanes	States must "take into account:" I.O. recommendations; customary use of channels for navigation; special characteristics of ships and channels; density of traffic
b) Establishment of international rules and standards on pollution prevention, reduction and control (vessel-source)	regional, global	primary-States secondary-I.O.	Art. 211(1)	IMO	States-cooperate through the "competent" I.O. to develop international rules and standards I.O.-facilitate agreement, prepare and promote draft standards	I) See MARPOL Convention, 1973 on present standards II) Possible subsidiary role for private associations, see e.g. ICS Voluntary Draft Code on Prevention of Pollution from Oil Tankers
c) Promotion of routing systems	national, regional	primary-States secondary-I.O.	Art. 211(1)	IMO	States-promote adoption of routing systems "designed to minimize" threat of accidents causing pollution I.O.-provide technical assistance, coordinate international systems	Possible role for regional organizations respecting international routing systems within a region

d) Minimum standards for national laws and regulations respecting vessel-source pollution	national	primary-States tertiary-I.O.	Art. 211(2)	IMO	States-reconcile national legislation with "generally accepted" international rules and standards I.O.-provide assistance in drafting/revising national legislation	Possible role for regional harmonization of standards, e.g. EC
e) Criteria for coastal State pollution control laws and regulations (vessel-source)	national	primary-States secondary-I.O.	Art. 211(5)	IMO	States-reconcile national laws and regulations with generally accepted international rules and standards I.O.-provide assistance in drafting/revising national legislation	
f) Criteria for establishment of regulations respecting "special circumstances"	national	primary-States tertiary-I.O.	Art. 211(6)(a), (c)	UNEP, IOC, IMO	States-establish special mandatory regulations only where there are "reasonable grounds" relating to oceanographic and ecological conditions and resource utilization patterns I.O.-provide assistance in determining whether "special circumstances" exist	Article allows States to exceed normal international standards in "special circumstances." Such measures may relate to navigational practices and discharges, but not to design, construction, manning or equipment of foreign vessels

g) Standards for flag State enforcement procedures	national	primary-States	Art. 217		States-reconcile national enforcement procedures with requirements of Article	I) States to ensure periodic inspection of vessels II) States to provide for immediate investigation and institute proceedings where appropriate, regardless of place of violation III) Penalties are to be of "adequate" severity to discourage violations
h) Standards for port State enforcement of pollution regulations	national	primary-States tertiary-I.O.	Art. 218	IMO	States-apply international rules and standards in cases of extra-jurisdictional pollution incidents I.O.-contribute to the development of international rules and standards	
I) Standards for port State enforcement respecting seaworthiness	national	primary-States	Art. 219	IMO	States-enforce seaworthiness regulations on vessels in port only when relating to pollution prevention, and where international standards are violated I.O.-contribute to the development of international standards	See SOLAS, 1973, respecting present international seaworthiness standards

j) Standards for coastal State enforcement of pollution regulations	national	primary-States	Art. 220		States-reconcile enforcement procedures with provisions of Article	i) Rules to be enforced must be in accordance with Convention or other international standards ii) State must have "clear grounds" for believing a violation has occurred iii) Physical inspection permissible only if "clear, objective" evidence of violation iv) State must release vessel where international standard of surety is satisfied
k) Standard of "proportionality" for intervention in cases of maritime casualties beyond the territorial sea	national	primary-States tertiary-I.O.	Art. 221	IMO	States-establish national measures so that level of intervention is proportionate to threat posed by the casualty I.O.-assist in development of procedures and standards of intervention	See Intervention Convention, 1969, on current conventional standards
l) Duty to avoid adverse consequences in the exercise of powers of enforcement	national	primary-States	Art. 225		States-ensure that enforcement activities do not endanger navigation or the marine environment	
m) Standards for investigation of foreign vessels	national	primary-States	Art. 226		States-reconcile national procedures with applicable international law	Provides limitations on coastal and port State investigation and detention of foreign vessels

4. Establishing Mechanism					
a) Duty to specify and publicize sea lanes and traffic separation schemes	national	primary-States secondary-I.O.	Art. 22(4)	IMO	States-indicate sea lanes and separation schemes on charts, and give "due publicity" to charts I.O.-assist in publicizing charts
b) Establishment of international rules and standards respecting vessel-source pollution control	global	primary-States secondary-I.O.	Art. 211(1)	IMO	States-act through the "competent" I.O. or general diplomatic conference to establish international rules and standards I.O.-promote and facilitate the development of international rules and standards
c) Duty to publicize and communicate national requirements for pollution prevention, reduction and control	national	primary-States secondary-I.O.	Art. 211(3)	IMO	States-publicize requirements and provide to the "competent" I.O. I.O.-distribute notifications

d) Procedures for the establishment of regulations in "special circumstances"	regional, global	primary-States primary-I.O.	Art. 211(6)	IMO	States-conform to procedures established by Article prior to enacting any "special circumstances" measures I.O.-participate in determination of "special circumstances" as required by Article	Article requires prior notification of I.O., a determination of justification by the I.O., and a delay of 15 months after submission to I.O. effect on foreign tests
e) Duty to notify affected coastal States of incidents involving discharges	national, regional, global	primary-States secondary-I.O.	Art. 211(7)	IMO	States-ensure that the international rules and standards respecting vessel-source pollution include requirements for prompt notification of affected coastal States I.O.-promote and facilitate agreement on international rules and standards which include this requirement	
f) Procedures respecting flag State enforcement	regional, global	primary-States secondary-I.O.	Art. 217(5) (6), (7)	IMO	States-i) cooperate in investigations upon request of flag State ii) investigate at request of other States (duty of flag State) iii) inform requesting State, I.O., of outcome of investigation	Paris Memo., III.1(h), above, is e.g. of one approach to agreement on procedures

					I.O.-facilitate agreement on request and notification procedures
g) Procedures for port State enforcement	regional, global	primary-States secondary-I.O.	Art. 218	IMO	States-I) comply with investigation request from flag State or State affected by pollution incident II) transmit records of investigation to flag State and/or port State I.O.-facilitate agreement on request and notification procedures
h) Procedures for avoidance of unnecessary physical inspection of vessels at sea	regional, global	primary-States secondary-I.O.	Art. 226(2)	IMO	States-cooperate in the development of procedures to avoid unnecessary physical inspection at sea I.O.-facilitate agreement on such procedures

IV. ENVIRONMENTAL MANAGEMENT OF OTHER ACTIVITIES

Purpose/Effect of Provision	Level	Assignee(s)	Reference	Appropriate International Organization	Required Initiative/ Follow-up	Comments/Recommendations
1. Prescribing Behaviour						
a) Duty to ensure that activities in the Area be conducted in accordance with "sound principles of conservation"	global	primary-I.O.	Art. 150(b)	ISA, UNEP, IUCN	I.O.-ensure that sound principles of conservation are applied in the management of the resources of the Area	
b) Duty to control pollution of the marine environment from land-based sources	national, regional	primary-States tertiary-I.O.	Art. 207(1), (2)	e.g. UNEP (including Reg. Seas Prog.) Paris Commission	States-take necessary measures to control pollution from land-based sources I.O.-assist with technical advice, drafting or legislation, regulations	I) See below IV.3(a) and 4(a), respecting standards and mechanisms II) For enforcement provisions, see Art. 213 III) See Paris Convention, 1974
c) Duty to control pollution resulting from sea-bed activities subject to national jurisdiction	national	primary-States	Art. 208		States-take necessary measures to control pollution from sea-bed activities, artificial islands and installations within the jurisdiction of the State	See below IV.3(b), for specific standards and requirements See N.W. Europe Offshore Pollution Civil Liability Convention (not in force)

d) Duty to establish rules and procedures respecting activities in the Area	global	primary-I.O.	Art. 209(1)	ISA, UNEP	I.O.-establish rules, regulations and procedures to prevent, reduce and control pollution of the marine environment resulting from activities in the Area	For enforcement provisions, see Art. 215
e) Flag State duty to adopt laws and regulations respecting activities in the Area	national	primary-States tertiary-I.O.	Art. 209(2)	ISA, UNEP, IMO	States-adopt laws and regulations to control pollution from the marine environment from activities undertaken by vessels and installations in the Area I.O.-provide assistance in drafting national regulations	Regulations must be "no less effective" than the international standards under Art. 209(1)
f) Duty to take all necessary measures to prevent, reduce and control pollution of the marine environment from dumping	national	primary-States tertiary-I.O.	Art. 210(1), (2)	e.g. UNEP, IOC, ICES, IMO, Oslo Commission	States-take all necessary measures to control pollution from dumping I.O.-advise on standards and assist in drafting regulations	I) See below IV.3(d), respecting standards II) For enforcement provisions, see Art. 216. Dumping control may be enforced by coastal States, flag States or States in which loading occurs

g) Duty to adopt laws and regulations to prevent, reduce and control pollution of the marine environment from or through the atmosphere	national	primary-States tertiary-I.O.	Art. 212	e.g. UNEP, IOC, WMO	States-adopt laws and regulations applicable to sovereign air space and all vessels flying flag of the State I.O.-provide technical assistance (e.g. research) and assist in drafting regulations	i) National laws and regulations should take into account international rules and standards. See below IV.3(e), respecting standards ii) For enforcement provisions, see Art. 222
2. Establishing Jurisdiction						
a) Coastal State jurisdiction over dumping in the territorial sea, EEZ	national	primary-States	Art. 210(5)		States-assert jurisdiction in accordance with Art. 210	Establishes coastal State right to "permit, regulate and control" dumping
3. Establishing Criteria and Standards						
a) Criteria for the regulation of pollution from land-based sources	national, regional, global	primary-States secondary-I.O.	Art. 207(1), (4), (5)	e.g. UNEP, IOC, SCOR, GFCM	States-i) cooperate in establishing global and regional rules, standards and procedures to control pollution from land-based sources ii) enact national regulations "taking into account" international rules and standards	i) UNEP has established an Ad Hoc Working Group of Experts to prepare draft guidelines ii) SCOR Project on Problems of River Inputs into Ocean Systems (RIOS) iii) IOC project on Pollution of the Oceans Originating on Land (POOL) iv) GFCM/UNEP work on land-based inputs to the Mediterranean is an example of a regional approach

					I.O.-i) facilitate agreement on international and regional rules and standards ii) advise on content of national regulations	v) National and international standards are to deal with the release of "toxic, harmful or noxious substances"
b) Criteria for the regulation of pollution resulting from sea-bed activities within national jurisdiction	national, regional, global	primary-States secondary-I.O.	Art. 208(3), (5)	e.g. UNEP, IMC	States-i) seek agreement on global and regional rules, standards and procedures ii) ensure that national laws and regulations are "no less effective" than international rules I.O.-i) facilitate agreement on international standards ii) prepare and promote draft guidelines iii) advise on national regulations	i) See the European Council of Environmental Law, Draft Convention on Deterioration of the Marine Environment as a Result of Exploration and Exploitation of the Seabed in Maritime Areas under National Jurisdiction ii) See IMC Draft Convention on Effects of Platform Drilling (1977) iii) See UNEP study on environmental/legal aspects of national offshore mining and drilling
c) Criteria for flag State regulation of activities in the Area	national	primary-States tertiary-I.O.	Art. 209(2)	ISA, UNEP, IMO	States-adopt national regulations which are "no less effective" than the international rules and standards under Art. 209(1) I.O.-advise on content of national regulations	No such international standards at present

d) Criteria for the regulation of pollution resulting from dumping	national, regional, global	primary-States secondary-I.O.	Art. 210(4), (6)	e.g. UNEP, IMO, WHO, EUROCEAN, IREA	States-I) cooperate in establishing global and regional rules, standards and procedures to control pollution from dumping II) ensure that national laws and regulations are "no less effective" than international standards I.O.-I) facilitate agreement on international standards II) perform research and monitoring functions	I) For present global standards see the London Dumping Convention, 1975. II) An example of regional standards is the Oslo Dumping Convention, 1972 III) WHO, EUROCEAN and IAEA all have specialized interests in the management of waste disposal at sea
e) Criteria for the regulation of atmospheric pollution	national, regional, global	primary-States secondary-I.O.	Art. 212(1), (3)	e.g. UNEP, WMO, IAEA	States-I) cooperate in establishing global and regional rules standards and procedures on the control of atmospheric pollution II) adopt national laws and regulations "taking into account" international standards I.O.-I) facilitate agreement on international standards II) advise on national regulations III) perform research and monitoring functions	The WMO Integrated Global Ocean Station System may provide useful monitoring and data collection services

4. Establishing Mechanisms						
a) Establishment of global and regional rules and standards respecting pollution from land-based sources	regional, global	primary-States secondary-I.O.	Art. 207(3), (4)	See above, IV.3(a)	States-i) harmonize policies at the appropriate regional level" ii) cooperate in establishing global and regional rules, standards and procedures respecting pollution from land-based sources I.O.-i) assist in harmonization at the regional level ii) facilitate agreement on global and regional rules, standards and procedures	Possible role at regional level for UNEP Regional Seas Programme
b) Establishment of global and regional rules and standards respecting pollution from sea-bed activities subject to national jurisdiction	regional, global	primary-States secondary-I.O.	Art. 208(4), (5)	See above, IV.3(b)	States-i) harmonize policies at the "appropriate regional level" ii) cooperate in establishing global and regional rules, standards and procedures respecting pollution from sea-bed activities subject to national jurisdiction	i) Possible role at regional level for UNEP Regional Seas Programme ii) Article requires that States "shall" establish global and regional rules, whereas Articles 207, 210 only require that States "endeavour" to establish such rules

					I.O.-i) assist in harmonization at the regional level ii) facilitate agreement on global and regional rules, standards and procedures
c) Establishing of global and regional rules, standards and procedures respecting pollution from dumping	regional, global	primary-States secondary-I.O.	Art. 210(4)	See above IV.3(d)	States-cooperate in establishing global and regional rules, standards and procecedures respecting pollution from dumping I.O.-facilitate agreement on global and regional rules, standards and procedures
d) Establishment of global and regional rules, standards and procedures respecting pollution from or through the atmosphere	regional, global	primary-States secondary-I.O.	Art. 212(3)	See above IV.3(e)	States-cooperate in establishing global and regional rules, standards and procedures respecting pollution from or through the atmosphere I.O.-facilitate agreement on global and regional rules, standards and procedures

V. GENERAL PROVISIONS

1. Coastal State Jurisdiction Over Protection and Preservation of the Marine Environment in The EEZ

56. 1. In the exclusive economic zone, the coastal State has: ...
(b) jurisdiction as provided for in the relevant provisions of this Convention with regard to:
...
(iii) the protection and preservation of the marine environment;

2. Rights and Duties of Other States in the EEZ

58. 3. In exercising their rights and performing their duties under this Convention in the exclusive economic zone, States shall have due regard to the rights and duties of the coastal State and shall comply with the laws and regulations adopted by the coastal State in accordance with the provisions of this Convention and other rules of international law in so far as they are not incompatible with this Part.

Commentary -- This Article would require other States to comply with laws and regulations for the protection and preservation of the marine environment imposed by the coastal State.

3. Protection of the Marine Environment and Activities in the Area

145. Necessary measures shall be taken in accordance with this Convention with respect to activities in the Area to ensure effective protection for the marine environment from harmful effects which may arise from such activities. To this end the Authority shall adopt appropriate rules, regulations and procedures for inter alia:

(a) the prevention, reduction and control of pollution and other hazards to the marine environment, including the coastline, and of interference with the ecological balance of the marine environment, particular attention being paid to the need for protection from harmful effects of such activities as drilling, dredging, excavation, disposal of waste, construction and operation or maintenance of installations, pipelines and other devices related to such activities;

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

4. General Obligation to Protect and Preserve the Marine Environment

192. States have the obligation to protect and preserve the marine environment.

5. Cooperation in the Protection and Preservation of the Marine Environment

197. States shall co-operate on a global basis and, as appropriate, on a regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards, and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment, taking into account characteristic regional features.

6. Obligations Under Other Conventions on Protection and Preservation of the Marine Environment

237. 1. The provisions of this Part are without prejudice to the specific obligations assumed by States under special conventions and agreements concluded previously which relate to the protection and preservation of the marine environment and to agreements which may be concluded in furtherance of the general principles set forth in this Convention. 2. Specific obligations assumed by States under special conventions, with respect to the protection and preservation of the marine environment, should be carried out in a manner consistent with the general principles and objectives of this Convention.

7. Principles for the Conduct of Marine Scientific Research

240. In the conduct of marine scientific research the following principles shall apply:...

(d) marine scientific research shall be conducted in compliance with all relevant regulations adopted in conformity with this Convention including those for the protection and preservation of the marine environment.

TABLE OF ABBREVIATIONS

ACMRR - Advisory Committee of Experts on Marine Resources Research. Status: FAO Advisory Committee.

ASFIS - Aquatic Sciences and Fisheries Information System. Status: FAO/IOC joint panel of experts.

CCAMLR- Commission for the Conservation of Antarctic Marine Living Resources. Status: Intergovernmental Organization.

ECE - Economic Commission for Europe. Status: UN Commission.

EC - European Communities. Status: Intergovernmental Organization.

FAO - Food and Agriculture Organization of the UN. Status: UN Specialized Agency.

GESAMP- Group of Experts On Scientific Aspects of Marine Pollution. Status: Group of Experts for the UN and UN Specialized Agencies.

GFCM - General Fisheries Council for the Mediterranean. Status: Intergovernmental Organization.

GIPME - Global Investigation of Pollution in the Marine Environment. Status: IOC Working Committee.

IABO - International Association for Biological Oceanography (Part of IUBS - International Union of Biological Sciences which is, in turn, part of ICSU - International Council of Scientific Unions)

IAEA - International Atomic Energy Agency. Status: Intergovernmental Organization.

IAPSO - International Association for the Physical Sciences of the Ocean (IUGG - International Union of Geodesy and Geophysics which is part of ICSU)

IATTC - Inter-American Tropical Tuna Commission. Status: Intergovernmental Organization.

IBFC - International Baltic Sea Fishery Commission. Status: Intergovernmental Organization open to any State.

ICCAT - International Commission for the Conservation of Atlantic Tunas. Status: Intergovernmental Organization open to UN members or UN Specialized Agency members.

ICES - International Council for the Exploration of the Sea. Status: Intergovernmental Organization. Committees of ICES: ANACAT - The Anadromous and Catadromous Fish Committee; The Baltic Fish Committee; Publications Committee; Statistics Committee; MMC - The Marine Mammals Committee.

ICOD - International Centre for Ocean Development. Status: Nongovernmental Organization.

ICS - International Chamber of Shipping. Status: Nongovernmental Organization.

ICSEAF- International Commission for the Southeast Atlantic Fisheries. Status: Intergovernmental Organization.

ICSEM - International Commission for Scientific Exploration of the Mediterranean. Status: Intergovernmental Organization.

IMA - Institute of Marine Affairs. Status: Intergovernmental Organization.

IMC - Intergovernmental Maritime Committee. Status: Intergovernmental Organization.

IMO - International Maritime Organization (up until 1975 IMCO -- Intergovernmental Maritime Consulative Organization). Status: UN Specialized Agency.

INSA - International Shipowners' Association. Status: Nongovernmental Organization open to shipping companies and national associations.

INTERTANCO - International Association of Independent Tanker Owners. Status: Nongovernmental Organization open to all independent tanker owners.

IOC - Intergovernmental Oceanographic Commission. Status: UN body. Committee: MARPOLMON - Marine Pollution Monitoring.

IOI - International Ocean Institute. Status: Nongovernmental Organization.

IPFC - Indo-Pacific Fishery Commission. Status: FAO body.

IPSFC - International Pacific Salmon Fisheries Commission. Status: Intergovernmental Organization of Pacific Rim countries.

ISA - International Sea-bed Authority. Status: Intergovernmental Organization established by the Convention for the purpose of regulating activities in the Area.

IUMI - International Union of Marine Insurance. Status: Nongovernmental Organization open to insurance associations and companies.

IUCN - International Union for the Conservation of Nature and Natural Resources. Status: Nongovernmental Organization (with governmental and nongovernmental members).

JCFBS - Joint Commission on the Fisheries in the Black Sea. Status: Intergovernmental Organization open to States of the area.

NAFO - Northwest Atlantic Fisheries Organization (Formerly ICNAF -- International Commission for the Northwest Atlantic Fisheries). Status: Intergovernmental Organization.

NASCO - North Atlantic Salmon Conservation Organization. Status: Intergovernmental Organization.

NEAFC - Northeast Atlantic Fisheries Commission. Status: Intergovernmental Organization.

NPFSC - North Pacific Fur Seal Commission. Status: Intergovernmental Organization.

OCIMF - Oil Companies International Marine Forum. Status: Nongovernmental Organization open to any oil company with an interest in shipping by tanker.

PIANC - Permanent International Association on Navigational Congresses. Status: Nongovernmental Organization.

PSA - Pacific Science Association. Status: Nongovernmental Organization open to all countries bordering the Pacific Ocean.

SCOPE - Scientific Committee on Problems of the Environment (Part of ICSU -- International Council of Scientific Unions.)

SCOR - Scientific Committee on Oceanic Research. (Created by ICSU). Status: Nongovernmental Organization.

TOVAL_OP - International Tanker Owners Pollution Federation, Ltd. Status: Nongovernmental Organization.

UNDP - United Nations Development Programme. Status: UN Programme.

UNEP - United Nations Environment Programme. Status: UN Programme.

UNESCO- United Nations Educational, Scientific and Cultural Organization. Status: UN Specialized Agency.

WDCs - World Data Centres. WDC-A is funded by the U.S. government and WDC-B is funded by the USSR. All countries of the world may participate in international/data exchange through the centres.

WHO - World Health Organization. Status: UN Specialized Agency.

WWF - World Wildlife Fund. Status: Nongovernmental Organization.

COMMENTARY

Tadao Kuribayashi
Faculty of Law
Keio University, Tokyo

Thank you, Mr. Chairman. Many contemporary issues are involved in the field of protection and preservation of the marine environment, whether they be concerned with marine pollution or conservation of living resources. Each of them touches the core of coexistence between mankind and ocean. My task is to comment on the excellent reports that we have just heard this afternoon, but since they all deal with extensive aspects of the issues, I would like to make some comments on the particular issue of ocean dumping of radioactive wastes by first introducing the present situation in Japan.

Two methods of disposal have been used in Japan; namely, land disposal with respect to high level radioactive wastes and both land and ocean disposal with respect to low level radioactive wastes. As for ocean disposal, Japan ratified the 1972 London Dumping Convention in 1980 and has been participating in the Multilateral Consultation and Surveillance Mechanism in the Nuclear Energy Agency (NEA) of the OECD since 1981. The Japanese Government sent four consecutive missions to eighteen Pacific areas from August to December of 1980. But in spite of these efforts, the Twelfth South Pacific Congress which was held at Vanuatu issued a statement on 11 August 1981 condemning the Japanese projects for ocean dumping, and on 3 September of the same year the Third Pacific Areas Congress held at Guam adopted a draft resolution opposing the Japanese projects for the dumping of low-level radioactive wastes in these areas. Furthermore, even in Japan, fishery circles protested firmly against the ocean disposal.

The Seventh Consultative Meeting of the Parties to the London Dumping Convention was held in 1983. This meeting adopted the resolution based upon the Spanish proposal to suspend dumping until the results of scientific survey assured its safety. The United Kingdom, the United States, the Netherlands, Switzerland, South Africa, and Japan opposed the Resolution. On this point, Mr. Curtis has reported in more detail. However, taking into account the adoption of the said Resolution, Japan decided to suspend the experimental dumping operation of low-level radioactive wastes in the Pacific Ocean and also decided to positively participate in and cooperate with the scientific survey. The attitude of the Japanese government toward this resolution seems to be that Japan would wait and see the result of this scientific survey; thus, with respect to low level wastes, there seems to be no change in its policy to conduct ocean disposal in parallel with land disposal. Both the government and atomic energy experts already believe that there would be little possibility that the result of this survey would prohibit ocean dumping and bring disadvantageous effects to Japan.

However, there is the view that there will be diplomatic and political damage if Japan forces ocean dumping, neglecting the international public opinion shown in the five Northern European countries' proposal to prohibit ocean dumping after 1990 and the proposal submitted by Nauru and Kiribati to prohibit dumping immediately. There is another view that Japan should draw some lesson from the situation in the European countries such as the United Kingdom, the Netherlands, and Switzerland, where there have been strong movements against ocean dumping. It is also pointed out that, as with high-level wastes, to keep an eye upon the radioactive wastes has been increasingly recognized to be indispensable. According to this view, dumping onto the deep seabed is almost undesirable because of the difficulty of its actual surveillance.

On the other hand, it is said that geographical conditions peculiar to Japan make it difficult to use only land disposal. However, in my view, there still seems to be room for facilitating land disposal through various efforts, including the reduction of the volume of the wastes.

Apart from these discussions of policy orientation, ocean dumping of radioactive wastes may not necessarily be regarded as unlawful under the present international law. The London Dumping Convention provides that, in accordance with the provisions of the Convention, the dumping of wastes or other matter listed in Annex I is prohibited. Annex I (6) enumerates "high-level radioactive wastes or other high-level radioactive matter defined on public health, biological or other grounds, by the competent international body in this field, at present the International Atomic Energy Agency, as unsuitable for dumping at sea." But ocean dumping of low-level wastes listed in Annex II of the Convention is permitted under certain conditions.

The Convention of the High Seas of 1958 laid down a provision (Article 25) for the prevention of pollution by radioactive wastes, but this provision has been regarded as consisting of general nature without concrete obligations.

Under the new Convention on the Law of the Sea, no specific rule has been established with respect to radioactive wastes except for some general provisions concerning "the release of toxic, harmful, or noxious substances by dumping" (Article 194(3)(a)) and ocean dumping in general (Articles 210 and 216). It is submitted, however, that the development at UNCLOS III supports the claim that there is an obligation for states to cooperate, especially through international organizations, to protect the marine environment against polluting activities subject to their national jurisdiction (Daniel P. Finn, "Ocean Disposal of Radioactive Wastes: The Obligation of International Cooperation to Protect the Marine Environment," Virginia Journal of International Law, 21-4 (1981):655). In fact, the new Convention provides that

> states acting especially through competent international organizations or diplomatic conference shall endeavor to establish global and regional rules,

standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment by dumping. Such rules, standards, and recommended practices and procedures shall be re-examined from time to time as necessary" (Art.210(4)).

In this way, although the new Convention does not impose specific obligations upon dumping activities of radioactive wastes, it does so for cooperation among states. In the circumstance where the international law of cooperation is developing, we must think over again the validity of the argument that resolutions adopted in multilateral forums have no binding force, at least for the states who voted against them. This applies especially for such matters as marine pollution which are common concerns of the world community as a whole. In this sense, the resolution adopted at the Consultative Meeting of the Parties to the London Dumping Convention which called for the suspension of the dumping until the result of scientific survey assured its safety should be respected to the utmost in accordance with the obligation of cooperation as provided for in the new Convention on the Law of the Sea.

In view of the fact that many coastal states of the Pacific Basin are not parties to the London Dumping Convention, the dumping of radioactive wastes is only possible with the consensus of the states concerned in the region. Perhaps, the existing institutions like the Consultative Meeting System of the London Dumping Convention and the NEA of the OECD will not be sufficient for that purpose. If the dumping states persist in performing their activities, they must make every effort to gain consensus, no matter how long or how hard the negotiation may be. In the meantime, efforts should be directed to the utilization of land disposal, with the aid of scientific technology.

COMMENTARY

Edward L. Miles
Institute for Marine Studies
University of Washington

Let me first make it clear that I do not speak for the United States. I have been involved in a study of the feasibility of disposing of high-level radioactive waste in the sub-seabed. This study is conducted by the Seabed Working Group of the Nuclear Energy Agency, OECD, which is a consortium of eight countries plus the EEC Commission. None of these countries has an operational program to dispose of waste in this way nor has the decision been taken that waste will be disposed of in this way. It is a study of the feasibility only. On that issue, Cliff Curtis and I sit on opposite sides of the fence in the International Maritime Organization, but I am here in my personal capacity and I can say whatever outrageous things I wish to. I will begin by looking at the issue from the point of view of one who is concerned with the implementation of ocean policy arising out of the new Convention on the Law of the Sea.

It is no surprise that prior to the entry into force of the Convention we hear quite a bit about which parts of the Convention are or are not declarative of customary international law. This is the normal part of tacit bargaining that is part and parcel of international life. I think that situation is accentuated by the position of the United States facing the consequences of having rejected the opportunity to sign the Treaty. This was demonstrated by the orchestrated chorus of this morning rising to a crescendo at lunch. However, as the exchange between Admiral Harlow and Ambassador Orrego demonstrated, U.S. declarations are not automatically compelling and they will have to be negotiated in certain parts of the world. That route will have its own pitfalls.

Similarly, from the point of view of certain people who wish to push the issue of environmental protection, one hears similar claims, and I refer in this instance to Louis Sohn's paper. But I am equally skeptical of such claims. Louis, if I understand him correctly, makes the statement in his paper that the provisions of Part XII of the Convention are meant to be universal and applicable to all states as generally accepted customary international law. In his oral presentation, if I am not mistaken, Louis went a little beyond that. He said in fact that they were generally binding on states. I do not think so. But beyond that, from the point of view of actual operations, one could ask, even if they were, would that make a difference? Would they amount to anything? I am forced to conclude that the answer to that is no for most of the provisions which I find hortatory and without specific effect.

Now the most significant parts of Part XII, from an operational point of view, have to do with port state and coastal state jurisdiction on vessel-source pollution. It is very difficult for somebody to claim that these are declarative

of customary international law. In addition, if one looks at the restraints on coastal state, strait state, and archipelagic state actions with respect to environmental issues, pollution control issues in straits, or in certain portions of archipelagoes, it is equally difficult to claim that what is in the Treaty is merely declarative of customary international law.

Now, if we turn to Cliff Curtis's paper, let me say I find this a very even-handed paper, a very good paper; but Cliff and I differ in perspective. First, let me state where we agree. I think Cliff is quite correct on the oil spill liability argument he makes and that what he says is essentially true and a considerable step forward. Let me, however, turn to the question of low-level waste, high-level waste, and whales -- and there may be more similarity between those three entities than you might have imagined. The issue with respect to low-level waste is whether or not decisions made by states parties to the London Dumping Convention will be based upon adequate scientific evidence or whether or not they will be simply political expressions of a dominant majority expressed in votes.

If the latter is to be the case, this will not be without consequences to the fabric of the Convention. The problem with respect to the moratorium and those countries who objected to the moratorium is that those decisions were taken, in effect, in violation of the procedures enunciated in the Treaty (in the Annex), which were to govern that kind of a decision. One found, also, on the high-level waste issue, a similar tendency that a dominant coalition, not wishing to have dumping of low-level waste and high-level waste in the ocean under any circumstances, would seek to impose that kind of a prohibition on the rest of the world by a vote. Is this a viable way of doing business and for how long?

Now in the case of the low-level wastes, we have, as has been pointed out, a review mechanism in place and some determination will be made in September of 1985. But it is not difficult to predict on the basis of what is now known, as Professor Kuribayashi mentioned, that the results of the scientific evaluation are not likely to support an outright prohibition of the dumping of low-level waste under certain specified conditions. Then what will be the response? Will there be a prohibition anyway? Or will there be an attempt to arrive at some sensible accommodation which meets the interests of all parties? It is not clear. Now, it is true, as Cliff points out in his paper, that no one is currently dumping. There was no dumping this summer. And he said this was directly related to decisions made within the LDC, the London Dumping Convention. That is a deliciously ambiguous statement because the parties who objected to the moratorium didn't somehow have a change of heart. What has happened is a revolt among the transport union workers in the U. K. that may have temporarily stopped the government from proceeding in this way. In the case of the Netherlands, the objection is broader than the transport workers' unions, and that may have longer lasting effect. But one waits to see what the outcome will be after September, 1985.

In the case of the high-level waste issue, we saw some of the same tendencies during the debates in December of 1983 and February of 1984 and the results were as Cliff has indicated in his paper. There was no consensus on whether or not the London Dumping Convention applied to this program, but it is decided that whenever the contracting parties wish to consider the operational question, the London Dumping Convention will be the forum and that no such disposal of high-level waste into the sub-seabed should take place unless and until it is proved to be technically feasible and environmentally acceptable, including a determination that such waste can be effectively isolated from the marine environment and the regulatory mechanism is in place.

The U.S. position on this was quite correct from my point of view sitting in the OECD seat (not the U.S. seat), because the truth is that we will know about 1990 whether or not the disposal of high-level waste into the sub-seabed is scientifically and technically feasible and we will have some basis for judging whether it is environmentally acceptable. The people who will decide whether that option is to be used are not the people, my colleagues and myself in the Seabed Working Group, who are studying the feasibility. It is the governments of the world who will decide whether or not this method is to be used. Even if the governments were to decide in 1990 or 1991 that this method should be used, it could not be used for at least another two decades. The development, the technical development that must take place, gives you quite a long lead time so that the world is unlikely to be presented with any nasty surprises.

On this basis it seemed to me the United States correctly argued that one could defer a decision on whether or not the London Dumping Convention applied to the time when we would know whether or not we had a problem, whether or not it was necessary to decide, and that is what we have done. Now, some people would like to decide the issue now and some others would like to stop the research that is going on. They would not like to know. But I think one ought to consider the consequences of putting all one's eggs into the land-based disposal basket and not investigating other alternatives as the land-based disposal alternative, which has priority, is being developed.

Finally, with respect to whales, one sees in the moratorium on whaling the same kind of approach as in the low-level waste issue. There is no scientific justification to my knowledge for a general global moratorium on whaling. Whether or not one wishes a moratorium on whaling is the result of a position one takes on almost a theological issue. However, that the United States has certain levers that the Congress can pull in order to put pressure on those who continue whaling is undoubtedly the case. But this puts the United States in some rather awkward positions. For instance, it may be, given the scientific evidence we have available, that there is a case to be made for a moratorium on the harvesting of bowhead whales. However, it was the United States who sought the exception for bowhead whaling on the basis of the aboriginal subsistence argument.

Similarly, in the case of U.S. tuna policy, the United States, on the one hand, argues that tuna cannot adequately be conserved through individual coastal state management, yet, on the other hand, the United States legislatively did away with biology and declared billfish non-highly migratory and then resorts to subterfuges like "the research catch" to manage Northern Atlantic bluefin. Now I don't think that those kinds of positions help the attempts to get sound management, sound conservation, of marine resources and I think that those who Cliff represents, and Cliff himself, in their eagerness to put forward a point of view which they feel very strongly about, sometimes push alternatives that are perhaps not wise. Thank you.

COMMENTARY

Howard Hume
Manager, Environment Protection Group
Petro-Canada Exploration, Inc.

I would like to take the opportunity to make some brief comments on the Law of the Sea Convention and existing environmental conventions and the need for complementary industry agreements to provide the tools to implement these conventions from a non-legalistic oil industry perspective. When asked recently what I perceived as the impact of the Law of the Sea Convention on industry, my response was that it would obviously have a major impact on the offshore seabed mining industry and the fishing industry but probably only a minor impact on the oil industry. One must distinguish here between industry or exploration activities: exploration, wildcat, delineation, offshore drilling -- and downstream activities: production, refining, and, most importantly, marine transportation. The oil industry, because of its size and the international nature of much of its operations, attempts wherever possible to be self-regulating. Industry marine transportation is largely controlled by international conventions such as the CLC and Fund Conventions, currently being upgraded to fit the realities of today's real world costs of pollution cleanup and compensation, and MARPOL, all of which were well covered by both Professor Sohn's and Mr. Curtis's papers, and national laws and regulations. These conventions come under the auspices of the International Maritime Organization, IMO, and are implemented by the industry liability and compensational agreements, CRISTAL and TOVALOP, and the insurance coverage provided by the P and I clubs. The effect of these conventions and agreements is to define the liabilities of governments, ship owners, and cargo owners and to provide large funds for cleanup costs and compensation. Technical advisory and training services are provided by the International Tanker Owners' Association and IMO, but pollution control and cleanup facilities are in most cases provided by national coasts guards, like the U.S. Coast Guard and Canadian Coast Guard, or in the case of several European and South American nations, their respective navies. The problems are largely of proximity and availability as it is impossible to predict the location and circumstances of a marine tanker oil spill and to plan and place equipment to deal with such an eventuality. In many of the Third World nations, response to a tanker spill is being coordinated within the various Regional Seas Programs under the auspices of UNEP and IMO, but in most cases they do not yet possess the equipment and manpower to deal with such a spill. Activities on the upstream side of the oil industry: exploration and wildcat drilling -- are in many countries some of the most heavily regulated in the world. Offshore activities in the North Sea, U.S., and Canadian waters are particularly closely

controlled by national laws and regulations. Such activities are much easier to control than the downstream marine transportation of crude oil, as the industry is required to apply for offshore drilling permits and have a major infrastructure with equipment pools, detailed contingency plans, training schemes, and equipment exercises. Knowing exactly where a blowout may occur allows for detailed planning and pre-spill location of equipment. Trans-boundary exercises carried out between the U.S. Coast Guard and Canadian Coast Guards attempt to provide an efficient international cleanup capability. An oil industry attempt to establish an international oil spill organization known as IOSO to provide the response capability not dealt with by IMO and the Law of the Sea Convention was at first unsuccessful. Agreement could not be reached on an international basis on the division of cost-sharing between the upstream drilling activities and downstream tanker transportation. Nor could the locations of major international equipment bases be agreed upon. As in the Third Law of the Sea Conference, these matters take some time. Working along the lines of the consensus principle, a gentlemen's agreement, and a "package deal" as outlined by Ambassador Evensen this morning, several of the multinational and national oil companies that had expressed a commitment to the IOSO agreement are in the final stages of signing an agreement that will make one of the largest and most comprehensive stocks of oil spill equipment in the world, that of British Petroleum at their Southampton base in the United Kingdom, available to the signatories on an international basis. This initiative may well be the cornerstone of a larger international agreement.

JON VAN DYKE: Let me take the chair's prerogative and ask first one question to Professor Sohn and then one to Cliff Curtis. To Professor Sohn, your paper describes the environmental provisions in the Convention as innovative and new and also as customary and binding upon the nations of the world at the present time. Ed Miles raised the question of whether it is possible to be new and innovative and also customary and binding. Could you give us your views?

LOUIS SOHN: This was a rather touchy question that Ed raised and that you now enlarge. In general, in international law, as elucidated recently by the International Court of Justice at the Hague, we have two stages: developing international law and emerging international law. Thus international practice, while continuously developing, at some point emerges as a rule of international law. Only the International Court or similar international tribunal, or states by consensus or through some kind of international agreement, can decide whether there has been such an emergence. You remember perhaps the beautiful Botticelli picture where the Venus starts emerging from the sea and finally she does emerge. The same is true about international law. One never knows that it has emerged until somebody announces it. In the old days, it was the consensus of writers that was decisive. If five writers from different countries said that a rule had emerged, usually everybody believed them. Now if the International Court states that a rule has emerged, it is generally accepted. Short of that it's more difficult to decide, except if there is a clear, or relatively clear, consensus of states. The interesting thing that happened in the Law of the Sea Conference was that a consensus emerged not only that those rules were necessary but that those rules have been accepted by states. This kind of opinio juris, which has been mentioned by other speakers, is necessary for the emergence of a customary rule. If states generally agree that it has emerged, this is sufficient, for the practice of states is the main source of international law. I don't see why the states themselves cannot do it, and why it should be necessary to wait for a professor or a judge to decide this issue. The states, of course, are the primary makers of international law, and if they decide to make it, they can make it even instantaneously (though we have seen that "instantaneously" in this case really meant twelve years); but once they finished the process, the law is made.

The second point that Ed has mentioned is also very important: whether these provisions are normative or whether they are too general to be normative. Of course, we know from domestic constitution-making that often the drafters had put some general provision in the Constitution that did not seem normative, but after a while it was discovered that this provision had important normative content. There is in the

Constitution, for instance, a vague phrase about "interstate commerce." It is doubtful whether anybody in 1790 thought that "interstate commerce" includes a boy operating an elevator in a building in which some interstate business is being conducted by some companies, but it was held in the 1930s that the little boy himself was engaged in interstate commerce. The same is true about "due process." Whatever people meant about due process in the 1790s, the concept has by now become complicated by some 300 decisions of the Supreme Court which tell us what due process is. The same is true in international law. There is, for instance, a general phrase that states should protect the environment. It doesn't mean anything at first but then the courts start saying that it means A, B, C, and D, and by the time they finish, several clear obligations have been established. Therefore, I am not worried about those things being general because that's the nature of things. It is not desirable to have the Convention so detailed that it would cause trouble in the future as soon as circumstances change. In fact, my difficulties with the Law of the Sea Convention center on those provisions, especially in some annexes that are so detailed that they will cause troubles very soon. The general provisions don't bother me at all.

JON VAN DYKE: Cliff Curtis, could you comment on the question of whether the nations of a given region can regulate the disposal of nuclear wastes in their region even in waters that are beyond 200-mile zones and in the "high seas"? Are there examples of regional treaties that claim such authority, and are they legitimate?

CLIFTON CURTIS: Because of the issues that are outstanding in the South Pacific Convention on Radioactive Waste Dumping there is the question of whether or not the high seas areas should be included within the Convention area. If ocean dumping were not an issue in the South Pacific Convention I do not really think there would be much concern about whether the Convention area includes just EEZ areas or those areas of the high seas that are enclaves surrounded by EEZs versus a broadly defined Convention area. My suspicion is that the South Pacific nations will adopt a very broad geographic scope of coverage and that they will prohibit radioactive waste dumping either at the meetings that conclude this week or at the diplomatic conference that is expected in early 1985.

A couple of other brief comments. Ed Miles raised the concern about eagerness as there were just a select few nations that supported the moratorium. I would only say that there were nineteen nations within the London Dumping Convention meetings in 1983 who favored the idea of a moratorium. It was the non-governmental organizations there which did not support it. All of the Nordic nations, Spain, Ireland, Canada, and a number of Latin American delegations supported it. They felt that there were scientific uncertainties; they did not feel that there was scientific evidence one way or the other that resolved the issue

definitively. They felt, however, that radioactive waste is a really persistent and toxic substance with which you need to be more careful than with garbage or dredge spoils. Rather than allow dumping to continue they put this moratorium into effect to try and get a better handle on what the risks were. It was the decisions in February of 1983 that directly led to the de facto moratorium. The trade unions blacklisted handling of radioactive wastes because of the decisions that they saw made in February of 1983 and their brother unions in Switzerland and Belgium acted in response to the trade union congress in the U.K. which made its decision because of what happened at the London Dumping Convention. On high level radioactive waste, again it was not just an emotive kind of view put into the London Dumping Convention. There were some pretty solid legal arguments drawing heavily on the Vienna Convention on the Law of Treaties, Article 32 and 33, saying that while the Convention may not specifically prohibit seabed disposal, the object and purpose of the Convention and the context in which it was written all support an interpretation that says it should be covered by the Convention and therefore prohibited. Again, many of those same countries I just mentioned were among a dominant group of nations that said it should be covered and prohibited.

Finally, on the whales moratorium issue, I would just say that I don't work very heavily on that issue. I do think there are scientific issues there. Sidney Holt, a fisheries expert, is on the scientific committee that addresses the whales issue, and the United States supports the moratorium. Certainly theology is involved in terms of the marine mammals and the concerns about their levels of intelligence and preciousness, but I think there is also a scientific component. In a sense the whales issue is like the radioactive wastes issue: we want to make sure that we don't err on the wrong side.

GORDON BECKER: This is an unauthorized, unpaid ad for the oil industry, lasting about sixty seconds. Professor Sohn was kind enough to mention in his excellent paper two voluntary arrangements, TOVALOP AND CRISTAL, which provide compensation for victims of oil pollution damage caused by oil spills from ships. However, I do want to suggest some corrections to some of the statements which that fine paper makes.

First, TOVALOP is an agreement among tanker owners. It means Tanker Owners' Voluntary Agreement concerning Liability for Oil Pollution. And CRISTAL means Contract Regarding an Interim Supplement to Tanker Liability for Oil Pollution. Both of these agreements antedated the Civil Liability Convention and the Fund Convention. CRISTAL provides supplementary compensation over and above that provided by TOVALOP and in some cases above that provided by the Civil Liability Convention. Both agreements have been revised and improved considerably from time to time and are still very much in existence. I believe, and this is my own opinion only, that both agreements provided. by means of some of their provisions, models for some of the changes worked in the Civil Liability and Fund Conventions by the recent Protocols.

DAVID COLSON: Initially I would note that these current issues: the marine pollution issues, whales, things like that -- affect states' law of the sea interests on a daily basis and give rise to significant bilateral differences between states which overshadow the deep seabed mining issues.

The question of whether the marine pollution provisions of the Convention are customary international law was, I believe, dealt with by the International Court of Justice in the Tunisia-Libya case. There the Court said that it regarded the economic zone provisions to be part of international law. I take that to include Part XII of the Convention text which relates to the rights and duties of states in respect of the preservation and protection of the marine environment.

Second, I find something curious about Professor Johnston's 119 provisions of the Convention concerning marine pollution. Recently, I have been looking at something called a Draft Second Restatement of the Foreign Relations Law of the United States. That draft has been able to boil these 119 provisions down into two articles. Somebody is doing a tremendous job on the draft restatement if they are able to get the marine pollution provisions down to two articles.

The third observation relates to the discussion that we had today about U.S. ocean policy. The issues that this panel has addressed, I submit, would be before us whether or not the United States had signed the Law of the Sea Convention. The Law of the Sea Convention was, in fact, even though made up of over 300 articles, a framework convention. Many tough issues were not dealt with in that Conference which operated, as we heard this morning, by consensus. These tough problems were left to bilateral or regional agreements. The United States would be debating about tuna, for instance, with the countries of Latin America, or the South Pacific, even if it had signed the Convention. There was no meeting of the minds about tuna at the Law of the Sea Conference.

My fourth observation concerns whales. Cliff Curtis threw a few "musts" into his discussion about certification under the Pelly and Packwood amendments. I believe he is correct that this issue will arise for the government over the next six to eight months as it looks at Japanese sperm whaling and possibly the overall moratorium. I would just note that I do not think that the government would agree that there is a "must" associated with the Pelly and Packwood amendments. Certification is a matter of discretion which resides with the Secretary of Commerce.

The fifth observation relates to the question about the regional pollution conventions, including the Cartegena Convention covering the Caribbean region and the issues at present under negotiation in the South Pacific region. Although the impression was given that there are significant differences in the U.S. approach in the two regions, I believe the government's approach is quite consistent. In the Cartagena Convention for the Caribbean the obligations that states are to take on in the area beyond 200 miles from the coast are not new

obligations under international law. They are basically the same obligations that we would say exist under customary international law. It is simply that the Convention enunciates these and sets them out in a textual form. The issue under discussion in the South Pacific is significantly different. There the issue is whether states should take on the obligations not to do something that they presently may lawfully do in the area beyond 200 miles from the coast.

JON VAN DYKE: Let me ask a point of clarification before I ask the panelists to respond. Your opening statement was that the U.S. position is that the environmental provisions are binding customary international law, and you quoted the Libya-Tunisia Continental Shelf case as saying that the EEZ provisions are now part of international law. As I remember that brief passing remark in the Libya-Tunisia case, it said that the "concept" of the exclusive economic zone is now part of international law.

DAVID COLSON: Certainly, but that concept has to include all of the navigation-related provisions of the economic zone. The coastal state can't obtain the resources without being prepared to accept the associated obligations relating to the maintenance of the freedom of navigation in the zone and restrictions on the coastal state pollution regime in the zone.

CLIFTON CURTIS: I think that your clarification on the whaling issue is correct, that potential certification proceedings could begin in the next year. As to the regional seas, I think the clarification there is largely correct. In the South Pacific what is being considered is a possible obligation not to do something. There is some precedent for that: no radioactive waste dumping, if I am correct, under the Barcelona Convention in the Mediterranean. In terms of the U.S. position with respect to the Cartagena Convention for the Caribbean there are no duties or obligations, no specific requirements beyond 200 miles. There are very few within 200 miles, too. Most of it is hortatory.

LOUIS SOHN: I want to make only a short comment on Colson's remark about the Restatement. Of course, the black letter text tries to be very succinct; this is the new method of Restatement. In the old days, there were, for instance, many sections in the Restatement on responsibility of states and so on; they have been boiled down in the new text to two sections. In the general sections on the environment, we had a special difficulty because there was tremendous pressure by some lawyers from industry to say that international law has nothing to say about environment. We had to prove to them that there was sufficient basis for at least two short sections on the subject. Then, of course, when we came to the marine environment, everybody objected to having more about the marine environment than we had about land environment. Consequently, we were limited by the prior policy decision to have only two

provisions. But it is amazing how much can be squeezed into two sections, especially if they are followed by long comments that also have obligatory character and in which one can paraphrase the articles in the Convention explaining these two sections. By the time we were through with the comments, they contained most of the provisions that Doug Johnston has mentioned. They may be slightly hidden here and there, but a careful lawyer -- and lawyers, once they have a case, are very careful -- can discover whatever he needs in those provisions.

JAQUE GRINBERG: My name is Jaque Grinberg from the Australian Embassy in Washington. I would like to make a comment and ask a question of Mr. Miles concerning radioactive waste disposal in the oceans. Like Mr. Miles, I would like to claim the benefit of speaking personally rather than as a representative of my government. I was concerned about the distinction that you drew between science on the one hand and political majorities on the other. It seemed to me that this kind of distinction ran partly through this morning's sessions, too. My concern was the implication that in some way political majorities are bad, science is necessarily good. I would like to make the point to you that the two should be fused together as often as possible. Now in speaking as an Australian citizen concerned with the question of radioactive waste dumping -- clearly as an Australian I have to address it because we export uranium and so bear some responsibility in the process -- when I look to my neighboring countries in the South Pacific, which may seem so very far from you but are our neighbors, and I look in particular at the fact that twelve out of the fourteen members of the Forum Fisheries Agency are almost solely dependent upon fish, and even then only one species of fish, the question should be asked whether those states who have most to lose by science going wrong do not have the right to object to scientific findings which at the end of the day can never be proved to be absolutely correct. It is probably trite to say that the aim of scientific investigation is to disprove what science previously held to be true. Looking at it from the point of view of the South Pacific countries, if ocean dumping of radioactive wastes takes place and if in the future it is found to be harmful in a way which deprives them of the one resource that they do have, the consequences to them are enormous and potentially disastrous, whereas the consequences to those countries who dump there are minimal. So in this sense I would like to ask the question then: is there room for these kinds of political considerations within the consideration of the general question of dumping?

EDWARD MILES: That is a very sophisticated "when have you stopped beating your wife" kind of question. I am not so naive as to think that scientific evidence will determine the outcome of important policy decisions, especially in international arenas where people have significant interests at stake. I object to the prevalent attitude in the meeting of the London

Dumping Convention Consultative Parties among certain members of that group of states Cliff Curtis was talking about, one outstanding member of which told me in effect that they didn't care what the science said, that political decisions had been made at very high levels and that was it. That had to be the outcome. We are, after all, looking at a medium, the ocean, in which we are trying to balance, as Cliff put it in his paper, the interests of development and use against the interests of preservation and conservation. One does not make this kind of decision solely on the basis of political preference because that, too, has consequences.

If one looks at the structure of ocean currents in the South Pacific and the location at which the Japanese had proposed to dispose of their low-level waste, in fact Tokyo is more at risk than anywhere else. I don't mean that that fact alone should determine what is done, because the people in the South Pacific have had what they consider fairly unfortunate experiences with nuclear testing by the United States and by France. But what I am asking for is a certain flexibility on both sides, realizing that neither nothing nor everything is known about this medium, and that just as there are consequences to being wrong, there are consequences to making decisions which fly in the face of scientific evidence. That is the only point of view I am pushing, if I am pushing a point of view.

DERMOTT DEVINE: I would like to ask Professor Sohn two questions; one is juridical and one is practical. The juridical question relates to the provisions in the Law of the Sea Convention which oblige parties to that Convention to apply the rules of other general conventions, for example, MARPOL. Thus, for example, a state which is not a party to MARPOL would be obliged under the Law of the Sea Convention to apply the provisions of MARPOL. I would like you to comment on this in the light of the general rule that states which are not parties to an agreement are not bound by it.

The second question, the practical one, relates to the jurisdiction to enforce environmental provisions. Traditionally the flag state enforced certain environmental laws, applying them to its own ships, and there would also, of course, have been territorial sea enforcement provisions. But under the Law of the Sea Convention the jurisdiction of coastal states seems to be greatly increased. The territorial sea itself has increased to twelve miles with all that implies, the contiguous zone to 24 miles with what that implies, and, as we have seen, in the EEZ there is enforcement jurisdiction on environmental matters. You yourself mentioned the new, very important phenomenon of port state jurisdiction, which is quite exceptional. My question really is: would you agree that there is a trend from flag state to greater coastal state jurisdiction in environmental matters, and would you think coastal states would enforce environmental legislation more effectively than did flag states in the past?

LOUIS SOHN: As far as your first question is concerned, I think you are right. If a state has become a party to the Law of the Sea Convention, knowing that as a result it also will be bound by provisions of some other convention, it has taken the good with the bad. Therefore it has additional obligations under the other convention. Of course, it is very nicely put, namely, that a state is not bound by those conventions but its laws should not go beyond them. And there is a safeguard here against too broad an extension of coastal jurisdiction.

With respect to enforcement, there were two basic problems. The first one was a general agreement that as a price for accepting international standards as binding upon them, the coastal states received jurisdiction to enforce those standards. It was a division between those who make the standards and those who enforce them. That was the bargain or the "package" in this particular area. Secondly, the shipping industry had a great influence here on the ports' jurisdiction question. The industry does not like its ships stopped on the high seas; the ships very often lose several days of transit and incur additional costs for the shippers. They mind less if a vessel is in port unloading or loading when the proceeding is being started. The vessel can be released on bond and can go whenever it has finished its business in the port. As a result there is no interruption to the journey, no losses. Therefore, the industry was willing to accept it, and since the flag states usually favor the shipping industry, the flag states did not object to this kind of port jurisdiction. though, as you know, on other issues flag states have strongly objected to their vessels being stopped, especially on the high seas. The situation in port is, however, a different one. In addition, of course, the flag state got special concessions. If it decides to prosecute the ship or the owner or the captain directly, the port state must release them and transfer all the documentation to the flag state. Again there is an exception to this exception. If the flag state does not behave itself and does not properly prosecute and punish, the port state can continue to have jurisdiction.

JON VAN DYKE: Regrettably, we have had time only to scratch the surface in this area. As David Colson said, many practical problems exist in this environmental area. Good substantive provisions and innovative dispute resolution mechanisms can be found in the Law of the Sea Convention, but without the United States in the Convention the questions remain whether these procedures will be used and whether the provisions in the Convention will be given the full meaning that their drafters intended them to have.

I want to thank all the panelists and the audience for participating in this discussion.

PART III

THE DEEP SEABED OPERATIONS -- WITH THE CONVENTION AND WITHOUT IT

INTRODUCTORY REMARKS

Stefan A. Riesenfeld
Boalt Hall School of Law
University of California, Berkeley

Our first speaker is Mr. James Kateka who is on the staff of the Ministry of Foreign Affairs of Tanzania. He is closely connected with the Preparatory Commission's work.

The second speaker, Philippe Manin, is a professor at the University of Paris I Pantheon Sorbonne. He is the author of very interesting publications. A recent article of his discussed the incertitude of the rules of international law -- a fascinating piece of work.

Our third speaker is Professor Guenther Jaenicke who is probably well known to all of you as counsel for the Federal Republic of Germany in two basic cases dealing with the law of the oceans, namely the North Sea Continental Shelf Cases and the Fisheries Case. He has been a member of the German delegation to the Law of the Sea Conference, and he is advisor to the Federal Republic of Germany in many affairs dealing with the law of the oceans.

The last speaker, but only in the order that I name, is Mr. David Colson, the Assistant Legal Advisor for Oceans, International Environmental and Scientific Affairs, Department of State.

These are the four speakers, then we have three commentators. The first commentator is Mr. Otho Eskin, the Director of the Office of Advanced Technology in the Department of State. Our second commentator is Mr. Niels-J. Seeburg-Elverfeldt who is associated with the Max Planck Institute in Hamburg. The third commentator will be Professor Tadao Kuribayashi from Keio University in Tokyo.

The first speaker or questioner from the floor will be Mr. Vladimir Pisarev from the Institute for U.S. and Canadian Studies of the Academy of Sciences of the USSR.

I myself will say very little about the substance of the panel because we have these very famous speakers. I can only say that my own experience in this area goes far back to the year 1930, in fact as far back as the modern history of the law of the sea, and I am hoping that today we will stop taking what has happened so far since the Law of the Sea Conference came to an end and take a look forward at the possibility of co-existence. One of the crucial questions, and I only mention it in my mind, is whether Article 137 paragraph 3 of the Convention is valid. That article as you know binds the members of the Convention, the parties to the Convention, to recognize only one system. Whether that article is in conformity with *jus cogens* or whether it is on its face invalid because it violates *jus cogens* is in my mind one of the crucial questions which will determine whether legally speaking the co-existence of two systems is possible.

THE STATUS OF THE INTERNATIONAL SEA-BED AUTHORITY: THE WORK OF THE PREPCOM

James L. Kateka
Director, Legal and International Organization
Ministry of Foreign Affairs
Tanzania

On behalf of Minister J. S. Warioba, the Chairman of the Preparatory Commission for the International Sea-bed Authority and for the International Tribunal for the Law of the Sea (Prepcom), I wish to express gratitude to the Law of the Sea Institute for the invitation to participate and to address the Eighteenth Annual Conference on the Law of the Sea. I wish also to thank the University of San Francisco for co-sponsoring and co-hosting the conference. Unfortunately Minister Warioba could not be here in person owing to other commitments, but he has asked me to read the following statement.

ESTABLISHMENT OF THE PREPCOM

The Prepcom was established by Resolution I of the Third United Nations Conference on the Law of the Sea (UNCLOS III). By this resolution, the Prepcom was to convene no sooner than sixty days (and no later than ninety days) after signature of or accession to the Convention by fifty states. At the signing ceremony of the Convention held at Montego Bay, Jamaica, there were 119 signatories, more than twice the number required for the Prepcom to meet.

MANDATE OF THE PREPCOM

The Prepcom's mandate includes the preparation of the provisional agenda and draft rules of procedure of the Assembly and Council (for the Authority established by Part XI of the Convention), making recommendations concerning the budget for the first financial period of the Authority, making recommendations concerning the relationship between the Authority and the United Nations and other international organizations, making recommendations concerning the Secretariat of the Authority, undertaking studies on the establishment of the Authority headquarters, preparation of draft rules, regulations and procedures to enable the Authority to commence its functions (including draft regulations on the financial management and the internal administration of the Authority), exercising powers and functions assigned to it by Resolution II of UNCLOS III relating to preparatory investment, undertaking studies on problems which would be encountered by developing land-based producer states likely to be most seriously affected by the production of minerals derived from the area (and how to minimize their difficulties), adoption of all measures necessary for the early entry into effective operation of the Enterprise,

and preparation of recommendations regarding practical arrangement for the establishment of the International Tribunal for the Law of the Sea.

The Prepcom, therefore, has heavy responsibilities and it is my hope that it will discharge them in as short a time as possible. Under Resolution I, the Prepcom is to remain in existence until the conclusion of the first session of the Assembly, at which time its property and records will be transferred to the Authority. The Convention is to come into force twelve months after the date of deposit of the sixtieth instrument of ratification or accession. Up to now 134 signatures have been received. So far only thirteen states have ratified the Convention.

COMPOSITION AND STRUCTURE OF THE PREPCOM

The Prepcom consists of full members and observers. Under the Rules of Procedure of the Prepcom, full members are those who have signed, ratified, or acceded to the Convention. Observers are those who signed the Final Act and are allowed to participate fully in the work of the Prepcom but are not entitled to participate in decision-making, and other observers who did not sign the Final Act but are allowed (on request) to attend the Commission meetings.

In addition to the Chairman, the Prepcom Bureau consists of fourteen Vice-Chairmen, a Rapporteur-General, and four Chairmen of the Special Commissions. Each Special Commission has three Vice-Chairmen. Thus the total composition of the General Committee is thirty-six. This composition takes into account both the principle of equitable geographical distribution and the special interests.

So far the Prepcom has held two full sessions split up in two parts. The first session was held in the spring of 1983 in Kingston, Jamaica. It was a procedural session at which the Chairman of the Prepcom was elected and a consensus statement of understanding on the structure of the Commission was adopted. At a resumed session held in summmer 1983, the Prepcom completed the structure by electing other office bearers and distributing work to the four Special Commissions. This resumed session also adopted the Rules of Procedure of the Prepcom (Doc. LOS/PCN/28 and Corr. 1). In spring of this year, a second session was held in Kingston when substantive work commenced. A resumed session (although for technical reasons it was called an informal meeting) was held this summer in Geneva.

SUBSTANTIVE WORK OF THE PROGRAM

The Commission has worked through its Plenary and four Special Commissions. The Plenary deals with two issues: (i) the implementation of Resolution II and (ii) the preparation of rules, regulations, and procedures relating to the various organs of the Authority.

IMPLEMENTATION OF RESOLUTION II

Resolution II governing preparatory investment in pioneer activities relating to polymetallic modules envisages three categories of pioneer investors. Paragraph 1 (a) (I) provides for France, India, Japan, and the Soviet Union or their state enterprises; paragraph 1 (a) (II) refers to four entities, "whose components being natural or juridical persons possess the nationality of one or more of the following states, or are effectively controlled by one or more of them or their nationals:" Belgium, Canada, the Federal Republic of Germany (F.R.G.), Italy, Japan, the Netherlands, the U.K., and the U.S.A. In the case of these two categories the state or state enterprises or entity concerned must have expended, before 1 January 1983, an amount equivalent to at least $30 million in pioneer activities and have expended no less than 10 percent of that amount in the location, survey. and evaluation of two areas sufficiently large and of sufficient estimated commercial value to allow two mining operations. The state or certifying state must have signed the Convention. Paragraph 1 (a) (III) refers to "any developing state which signs the Convention or any state enterprise or natural or juridical person which possesses the nationality of such state or is effectively controlled by it or its nationals and which has expended US $30 million before 1 January 1985."

The Commission at its spring session this year considered the draft rules for the Registration of Pioneer Investors (Doc. LOS/PCN/WP.16/Rev.1). The registration rules are meant to facilitate the consideration of applications and approval of pioneer investors. So far four states have submitted applications. These are the USSR (July 1983), India (January 1984), France and Japan (both submitted applications in August 1984). The consideration of these rules was delayed for a long time by the problem of conflict resolution of overlapping claims.

Conflict resolution is an issue outside the mandate of the Prepcom. It is a matter among pioneer investors. Resolution II paragraph 5(a) states that "any state which has signed the Convention and which is a prospective certifying state shall ensure, before making applications to the Commission ... that areas in respect of which applications are made do not overlap one another or areas previously allocated as pioneer areas."

Much effort was made to deal with this question of conflict resolution. Canada submitted its memorandum of understanding (MOU) last year to the potential pioneers but the MOU did not command support. When this matter continued to cast a shadow on the work of the Commission, the Prepcom decided at its March 1984 Kingston session to mandate the Prepcom Chairman to use his good offices in settling this matter. For without resolution of the conflicts issue, the Prepcom could not adopt the registration rules.

In an attempt to resolve the conflicts issue, the Chairman sent a four-point letter to the parties concerned in May 1984. Despite the May letter, the parties failed to reach an understanding. Thus at the Geneva meeting, as happened in the March 1984 Kingston session, the Chairman spent considerable time on the question of conflict resolution. Consultations were held among the four states which have submitted applications (under the Chairman's auspices). The Group of Seven Western industrial states also submitted a memo which contained their views and was submitted to the Chairman by the Netherlands. The consultations centered on two main issues, namely, a series of cut-off dates for certain activities to be undertaken in order that conflicts may be resolved, and the procedure which might be applied in order to resolve conflicts.

After lengthy negotiations, an understanding was reached and is contained in the document LOS/PCN/L.8. Under this understanding. the first group of applicants (which will include all those who will have submitted applications by 9 December 1984) will be considered and registered simultaneously. All applicants will meet on 17 December 1984 to ascertain whether there are any overlaps. If overlaps are found, the conflicts should be resolved through negotiations. All conflicts should be resolved by 4 March 1985, a week before the opening of the Kingston session of the Prepcom.

With the adoption of the understanding on conflict resolution, the Plenary resumed consideration of the outstanding rules on the registration of pioneer investors. Besides the issue of the resolution of conflicts the Informal Plenary had to consider other important matters, for example: (i) the composition and competence of the Group of Technical Experts which will assist the General Committee in examining applications; and (ii) the question of the confidentiality of data.

When the Informal Plenary resumed consideration of the rules on pioneer investors it had before it a paper prepared by the Chairman for its consideration. The Informal Plenary began consideration of these proposals and this will be continued at the next session in Kingston where it is hoped that the rules on registration of pioneer investors will be adopted.

In his paper, the Chairman has proposed that the rule concerning an ad hoc group of technical experts be resolved by adopting a permanent list (three from each country) to be kept by the Secretary-General. By this proposal, the General Committee will appoint the experts comprising fourteen members (six from pioneer investors and eight from others) taking into account the different interests and geographical regions. This is a compromise between those who wanted a permanent group consisting of twelve members and those who wanted an ad hoc group comprising three members. The experts will have an advisory role and applications will be approved by the General Committee.

Other related questions were also considered. The F.R.G. request for pioneer investor status was taken up. The Chairman

read an understanding which stated that "assuming that the total number of the pioneer areas allocated under paragraph 1(a) (ii) of Resolution II will not exceed four areas and provided the F.R.G. signs the Convention, the Prepcom recognizes the importance of finding a solution to this problem in a manner consistent with the objectives and conditions of Resolution II. The Prepcom will consider this problem at its next session." A request by the Eastern European Socialist group for an additional mine site could not be accommodated due to lack of time. It was agreed to consider this problem at the next session.

There was a request by Brazil to postpone the adoption of Rule 7 of the registration rules so that the January 1985 date for developing countries (paragraph 1(a) (iii) of Resolution II) could be extended. This request was accepted by the Prepcom and by implication the January 1985 date was extended.

PROVISIONAL UNDERSTANDING

A provisional understanding on seabed matters signed on 3 August 1984 among eight industrial powers clouded the atmosphere of the Geneva session of the Prepcom. The Group of 77, the Socialist countries, and some others viewed this understanding as a mini-treaty in contravention of the Convention regime. Statements deploring the understanding were made during the Prepcom session. The understanding was deemed to be null and void and thus illegal.

RULES OF AUTHORITY

At the March 1984 session, the Prepcom began consideration of the draft rules of procedure of the Assembly (Doc. LOS/PCN/WP.20 and Corr.1). A first reading of most of the rules has been completed and it is hoped that at the next session the Prepcom will adopt the Rules of Procedure of the Assembly. Some of the important issues concern the status of observers, the establishment of subsidiary organs of the Assembly, and the decision-making process, especially with respect to financial matters.

SPECIAL COMMISSION 1

Special Commission 1 is on the problems that could be encountered by developing land-based producer states likely to be most seriously affected by the production of minerals desired from that area. It is chaired by Hasjim Djalal (Indonesia) and has concentrated on three matters: (i) identification of the developing land-based producer states most likely to be affected by the production of minerals from the area; (ii) identification of the problems that may be encountered by other states; and (iii) identification of measures that can minimize their difficulties. The Special Commission considered in depth (i) and (iii) and touched upon (ii).

SPECIAL COMMISSION II

Special Commission II, for the adoption of all measures necessary for the early entry into effective operation of the Enterprise (the seabed mining arm of the Authority), is chaired by Lennox Ballah (Trinidad and Tobago). Its mandate is spelled out in paragraph 12 of Resolution II, i.e., obligations of pioneer investors and of certifying states which sponsor them. It also deals with the structure of the Enterprise and its start up period and on different joint venture options for the initial operation of the Enterprise.

SPECIAL COMMISSION III

Special Commission III is on the preparation of rules, regulations, and procedures for the exploration and exploitation of the Area (mining code) and is chaired by Hans Sondaal (Netherlands). So far discussion has centered on background papers prepared by the Secretariat on prospecting, exploration and exploitation, particularly the qualification of applicants.

SPECIAL COMMISSION IV

Special Commission IV, on the establishment of the International Tribunal for the Law of the Sea, is chaired by Gunter Goerner (GDR). It has begun the first reading of the Draft Rules of the Tribunal. These draft rules, it might be noted, closely follow the rules of the International Court of Justice.

CONCLUSION

The Prepcom had made good progress so far towards the realization of its mandate. The last session in particular was fruitful by reaching an understanding on conflict resolution -- a problem which had bedevilled the Commission. It can now approve registration rules so that the first applicant is registered, thereby giving momentum to the Prepcom.

THE VIABILITY OF THE DUAL APPROACH: THE FRENCH POSITION

Philippe Manin
Center for European Studies
University of Paris I, Pantheon-Sorbonne

INTRODUCTION

French Interest in the Deep Seabed Resources

In the early seventies (1970-1974), a French public body, the National Center for the Exploitation of Oceans (CNEXO) and a private firm, Societe Le Nickel, initiated prospecting of the deep seabed mineral resources in the southern Pacific Ocean.

In 1974, the French government encouraged the creation of a French consortium: the French Association for the Study and Exploration of the Nodules (AFERNOD). This consortium was created by three partners, CNEXO, Societe Le Nickel, and Nuclear Energy Authority (CEA), another public body. It included five partners from 1976 to 1980. It includes now four partners, the first three and another private firm, Les Chantiers France Dunkerque.

At the end of 1980, the consortium had spent, since it was created, about US $45 million dollars (260 million 1981 francs).

Since 1980, the consortium activities have been even more important (expenses in 1982: 60 million francs; in 1983: 120 million francs. The goal is to make possible the exploitation of a first nodule site after 1988.

The consortium expenses are roughly divided into two main parts, a first part devoted to prospecting and a second part to perfecting the exploitation technique.

Prospecting of the Pacific Ocean has been completed. A 450,000 square kilometer area was first selected in the north Pacific Ocean. Then, a 150,000 square kilometer area was delimited.

From 1984 to 1988, the Consortium will have to make workable the exploitation technique based upon the using of automatic shuttles between the seabed and the level.

From now to the start of the exploitation on an industrial basis, AFERNOD will have to spend, following its estimates, between one and two billion dollars.

Setting Up a French Legislation

The rules related to the exploration and exploitation of the mineral resources were, until the 1981 law, all included in the Code Minier.

Relying on the Code, the French government issued, on 12 May 1981, an order relating to the list of documents which any French citizen would have to file in order to get a license from the French authorities. But the Code Minier is only applicable to French territory. It could not be the right basis in such a case. This order was then rescinded.

In September 1981, the government filed a bill before the Senate. This bill was, after some slight changes, adopted by the Senate and the National Assembly in November. But the law was brought before the Constitutional Court by a group of members of the National Assembly.

On 16 December, the Constitutional Court declared the law contrary to the Constitution in so far as it was applicable to the French overseas territories, because the advisory opinion of the local assemblies had not been taken.

In fact this provision was completely useless and the law was published without reference to the overseas territories [1], and with no other change. It came into force on the 24 December 1982 [2].

The basic principles are all included in the law.

The procedural rules relating mainly to the issuing of licenses have been those regulated by the 29 January 1982 Order (Decret) and by a decision (Arrete) taken by the Minister for Industrial Affairs on the same day [3].

French International Commitments

Vis a Vis the UNLOS Convention

France signed the UNLOS Convention at the UNCLOS final session in Montego Bay in December 1982. While signing the Convention, the French delegation made a declaration including four points, two of which deal with Chapter XI of the Convention. In Point 2, the most important one, the French delegation asserts that the Convention provisions relating to the ocean floor outside the limits of national jurisdiction are not satisfactory and will have to be improved by the work and decisions of the Preparatory Commission. These decisions will have to be adopted by consensus.

In Point 3, the French delegation only reasserts that signing the Convention does not mean any change of the French attitude towards the UNGA Resolution 1514 (XV).

Two days before, the French Ministry for the Sea Affairs also made a statement explaining, in a more detailed manner, the French position towards the Convention.

As a signatory to the Convention, France is a member of the Preparatory Commission. Together with India, Japan, and the USSR it is, following Resolution II of the Conference, one of the four "Pre-enactment Explorers" states.

On 3 August 1984, the French government filed an application for a license with the UN Secretary General for transmittal to the Preparatory Commission.

Other Commitments

On 2 September 1982, France signed, together with the Federal Republic of Germany, the United Kingdom, and the United States, an agreement concerning interim arrangements relating to polymetallic nodules of the deep seabed [4]. The object of this agreement was to facilitate the identification and resolution of conflicts which might arise from the filing and processing of applications for authorizations made by pre-enactment explorers on or before 12 March 1982.

At last on 3 August 1984, France signed, together with seven other countries: the Federal Republic of Germany, Belgium, the United States, the United Kingdom, Italy, Japan and the Netherlands -- an interim agreement relating to the deep seabed. This agreement follows an agreement concluded between the six consortia: AFERNOD, Deep Ocean Resources Development, Ltd., Kennecott Consortium, Ocean Mining Associated, Ocean Minerals Company, and Ocean Management Inc.

Let us come now to the question which has to be discussed this morning.

Are the "reciprocal regimes," namely the regimes based upon a unilateral legislation such as the French one, viable?

At first sight, there is no reason why a law aiming at regulating the activities of the citizens of the state could not be viable. But this viability becomes doubtful if the enactment of the law is or becomes an act contrary to international law. The question has not to be seen in general terms but in respect to the French obligations under international law.

The French position is indeed that a reciprocal regime such as the one to which France is a party is totally compatible with the rules of international law relating to the deep seabed resources. In that sense it is viable as long as the French obligations under international law are not substantially modified.

This assertion has, of course, to be justified. The justification will be twofold:

1. The reciprocal regime is not contrary to the rules of international law relating to the deep seabed resources.
2. The reciprocal regime is not contrary to the obligations arising from the signature of the Convention.

THE RECIPROCAL REGIME IS NOT CONTRARY TO THE RULES OF INTERNATIONAL LAW RELATING TO THE DEEP SEABED RESOURCES

The UNLOS Convention being not in force, it is clear that rules relating to the deep seabed resources can arise only from general international law.

As it had been said, general international law has already been modified because of the mere existence of the UNCLOS.

But we cannot go too far in that sense, especially with regard to the deep seabed resources.

The French position is twofold:

1. Part XI of the Convention cannot be placed, from the point of view of the sources of law, on the same level as many other parts of the Convention.
2. The rules of international law dealing with the deep seabed resources do exist. But they are limited to a very general, though very essential, principle.

In the declaration made on 8 December 1982, when signing the Convention, the French government stated that the provisions relating to the juridical status of the different maritime zones and to the exploitation and preservation of sea resources confirm and strengthen the general rules of international law.

The French goverment had in mind the generally admitted criteria of existence of a customary rule of law, especially in the case where a universal treaty has already been negotiated, namely (1) the consensus revealed by the debates in the Conference, and (2) the extensiveness and uniformity of State practice during and after the Conference [5].

It is obvious and need not be discussed at length that the same criteria lead to the conclusion that the exploration and exploitation regime set up by Part XI cannot be considered as based upon customary rules of law.

A state can be bound by this regime only if it becomes a party to the Convention and if the Convention enters into force.

But it is also conceivable that some provisions of Chapter XI having a normative nature become part of customary law.

This would be the case if the practice of states not parties to the Convention constituted an evidence of a general acceptance of the regime established by the Convention [6].

However, the French government has stated, in Point 2 of its declaration, that it considers Part XI provisions deeply unsatisfactory in many respects. It pointed out that these provisions would have to be substantially improved through the rules adopted by the Preparatory Commission and that the French government would decide upon its ratification, taking into account the results of the work of the Preparatory Commission [7].

Such a dissent expressed by a representative state makes difficult, if not impossible, the establishment of customary rules. At least it makes clear that the rules are not opposable to the protesting state [8].

<u>However, General Rules of International Law Relating to the Zone and Its Resources Exist.</u>

These rules are limited to a general but essential principle, namely that the zone and its resources are the common heritage of mankind.

Some legal consequences arise from this principle which the reciprocal regimes have to comply with.

The French Minister of the Sea, in his statement before the Conference, expressed the full support of the French government to the "common heritage of mankind" principle, pointing out that it was an essential part of the North-South dialogue and of the New International Economic Order.

If the acceptance of this principle does not entail the acceptance of the status set up by Chapter XI, it entails two consequences.

First, nobody cannot claim any kind of sovereign rights over any part of the seabed located beyond the limits of the national jurisdiction.

Second, the exploitation of the mineral resources of the seabed benefits, directly or indirectly, many countries and especially the under-developed world since the common heritage principle, invented by poor countries and accepted by the rich ones, is a part of the strategy aiming at reducing the difference between the developed and under-developed world.

The reciprocal regime to which France is a party complies with both obligations.

First, Article 1 paragraph two of the French law states that the granting of licenses to French citizens cannot be construed as a claim of sovereignty over the seabed located outside the limits of national jurisdiction.

Since the other national legislations which are in force express the same rule, we can say that this common attitude of representative states is probably the evidence of a general rule of international law.

Second, following Article 12, the licensees have to pay a royalty to the French state. The rate of the tax is 3.75 percent on each net ton of extracted product. Since 1982, a special fund has been created to assure the participation of developing countries in the benefits of the exploitation.

As long as the UNCLOS is not in force in respect to France, France is only bound by the "common heritage of mankind" principle. Being compatible with the principle, the French reciprocal regime is viable.

COMPATIBILITY OF A RECIPROCAL REGIME WITH THE OBLIGATIONS ARISING FROM THE SIGNATURE OF THE CONVENTION

Following general international law, the signatories of a treaty must comply with certain obligations. But the case of the Law of the Sea Convention is a particular one because, before the Convention's entry into force, a special machinery is already created which applies to the signatories. So the explanation will be twofold.

General Obligations Arising from the Signature of a Treaty

The situation of the signatory is clearly determined by Article 18a of the Vienna Convention on the Law of Treaties:

> A State is obliged to refrain from acts which would defeat the object and purpose of a treaty when: a) it has signed the treaty ... until it shall have made its intention clear not to become a party to the treaty;"

First, a signatory of a convention does not comply with its international obligation if its acts are contrary to the fundamental rules laid down by the Convention.

In the case of the UNCLOS, as far as the seabed is concerned, a claim of sovereignty over part of the seabed could certainly constitute such an act. But it is difficult to see other acts of that kind.

Second, the obligations the signatory has to comply with are not of a permanent nature. They disappear as soon as the state has made clear its intention not to become a party of the treaty.

For example, in accord with France's declaration made at the last session of the Conference, if the work of the Preparatory Commission is not considered satisfactory at the end of a reasonable period of time, France, though a signatory to the Convention, could no longer contemplate becoming a party to the treaty.

In that case, it would still be bound, of course, by the obligations arising from general international law. Since the reciprocal regime to which France is a party is compatible with the obligations arising from general international law, this regime would not have to be changed. On the contrary, as Article 1 of the French law points out, if the UNCLOS enters into force with respect to France, a new law will have to be adopted, taking into account all the provisions of the Convention which, in any case, would supersede French law, according to Article 55 of the French Constitution.

What would be the situation if France cannot become a party to the Convention? If the Convention is not in force, the only solution would be the generalization of reciprocal regimes.

If the Convention is in force, it may of course happen that the Authority delivers a license concerning, totally or partially, the same area over which a French citizen already had a license delivered by French authorities.

The problem cannot of course be investigated in depth now. It is enough to say:

* The "international" permit would have no "superior" authority vis-a-vis the French permit.

There are several ways of complying with the "common heritage of mankind" principle. The first way is the centralized solution endorsed by the UNCLOS. The other way is the decentralized solution in which the principle is carried out by each state.

* Obviously France could not invoke against an international authority the exclusive rights principle laid down by Article V of the French law.

This principle is valid only in the framework of the relationship between, on the one hand, the holders of French permits (or permits coming from reciprocating states) and the French state on the other hand. Furthermore, Article 8 of the law makes clear that the exclusive rights principle is valid only vis-a-vis French citizens or people acting according to the legislation of a reciprocating state.

In other words, the French state could not be liable vis-a-vis the holder of the French permit if its activity were disturbed by the holders of non-reciprocating states.

But it must also be pointed out, and it has been pointed out in the French Parliament debates, that the holders of French permits can rely on the protection of the French authorities. In other words, the French authorities will do their utmost in order to make the exploration and the exploitation of the seabed resources as peaceful as possible.

Specific Obligations Arising from the Signature of UNCLOS

These specific obligations come out of Resolution I establishing the Preparatory Commission and from Resolution II relating to the pre-enactment investments. These obligations are of course of a provisional nature.

Far from making the reciprocating regimes such as the French one incompatible with the UNCLOS system, Resolution II makes clear that these reciprocating regimes are desirable. Two main reasons can be pointed out:

1. Resolution II puts the emphasis on the usefulness of investments before the Convention enters into force. Indeed the common interest of mankind is that, without waiting for many years, states and enterprises perfect the techniques which are necessary to make possible the exploitation of the seabed resources when it is useful. Money is needed for that and a juridical safety net is needed, too, because without that safety net people will not be pushed to take big risks. The unilateral legislation relating to the seabed resources does create such a safety net.
2. Resolution II, in its Article 5a, puts the emphasis on the necessity of avoiding the overriding permits. It is clear that the reciprocal regimes are the best means of eliminating that risk.

NOTES

1. Mayotte being a special case.
2. Journal Officiel de la Republique Francaise, 24 December 1981, p. 3499.
3. Journal Officiel de la Republique Francaise, 31 January 1982.
4. ILM 1982, p. 950.
5. I.C.J. Fisheries Jurisdiction, Rec. 1974, paragraph 52.
6. I.C.J. North Sea Continental Shelf, Rec. 1979, paragraph 74.
7. Decl. Le Pensec A/Conf. 62/PV 190 23/25
8. I.C.J. Fisheries Case 1951.

REFERENCES

Appollis, G., "La loi francaise sur les fond marins internationaux," Revue Generale de Droit International Public, 1983, pp. 105-144.

de Lacharriere, G., "La loi francaise sure l'exploration et l'exploitation des ressources minerales des grands fonds marins,", Annuaire Francais de Droit International, 1981, pp. 665-673.

LOIS

LOI n° 81-1134 du 23 décembre 1981 modifiant l'article 108 du code pénal et abrogeant les articles 184, alinéa 3, et 314 du même code (1).

L'Assemblée nationale et le Sénat ont adopté,

Le Président de la République promulgue la loi dont la teneur suit :

Art. 1er. — L'article 314 et l'alinéa 3 de l'article 184 du code pénal sont abrogés.

Art. 2. — A la fin du deuxième alinéa de l'article 108 du code pénal, les mots : « ainsi qu'aux délits prévus et réprimés par l'article 314 » sont supprimés.

Art. 3. — Les dispositions de la présente loi sont applicables aux territoires d'outre-mer.

La présente loi sera exécutée comme loi de l'Etat.

Fait à Paris, le 23 décembre 1981.

FRANÇOIS MITTERRAND.

Par le Président de la République :

Le Premier ministre,
PIERRE MAUROY.

Le ministre d'Etat,
ministre de l'intérieur et de la décentralisation,
GASTON DEFFERRE.

Le garde des sceaux, ministre de la justice,
ROBERT BADINTER.

Loi n° 81-1134 TRAVAUX PREPARATOIRES (1)

Assemblée nationale :

Propositions de loi n°s 200 et 351 ;
Rapport de M. Marchand, au nom de la commission des lois, n° 559 ;
Discussion et adoption le 25 novembre 1981.

Sénat :

Proposition de loi, adoptée par l'Assemblée nationale, n° 75 (1981-1982) ;
Rapport de M. de Cuttoli, au nom de la commission des lois, n° 112 (1981-1982) ;
Discussion et adoption le 15 décembre 1981.

NOTA. — *Les documents parlementaires indiqués dans les travaux préparatoires rappelés à la fin des textes législatifs sont vendus ou expédiés par la Direction des Journaux officiels, 26, rue Desaix, 75727 PARIS CEDEX 15, au prix de 1,50 F l'exemplaire ; ne pas régler la commande à l'avance mais attendre d'avoir reçu la facture.*

LOI n° 81-1135 du 23 décembre 1981 sur l'exploration et l'exploitation des ressources minérales des grands fonds marins (1).

L'Assemblee nationale et le Sénat ont adopte,

Le Conseil constitutionnel a déclaré conforme à la Constitution,

Le Président de la République promulgue la loi dont la teneur suit :

Art. 1er. — Dans l'attente de l'entrée en vigueur d'une convention internationale à laquelle la République française serait partie, fixant les règles relatives à l'exploitation des ressources minérales des fonds marins situés au-delà des limites de la juridiction nationale des Etats côtiers, la présente loi fixe les conditions dans lesquelles la République française accorde des autorisations d'exploration et d'exploitation de ces ressources aux personnes physiques ou morales de nationalité française.

La délivrance de ces autorisations ne constitue pas une revendication de souveraineté sur une partie quelconque des fonds marins situés au-delà des limites de la juridiction nationale des Etats côtiers.

Les activités menées au titre de la présente loi ne portent pas atteinte à l'exercice des libertés de la haute mer, conformément au droit international, en particulier en matière de navigation, de pêche et de recherche scientifique. Elles doivent permettre une gestion rationnelle des ressources minérales des fonds marins.

Art. 2. — Aux fins de la présente loi, on entend par :

Fonds marins, le sol et le sous-sol marins situés au-delà des zones soumises, en conformité avec le droit international, à la juridiction nationale des Etats côtiers ;

Prospection, la reconnaissance générale des fonds marins sur de vastes surfaces, destinée à recueillir, en particulier par le prélèvement d'échantillons, des indices permettant de localiser des gisements de ressources minérales ;

Exploration, la reconnaissance détaillée d'une surface limitée des fonds marins, mettant en œuvre des moyens techniques et financiers importants, destinée à démontrer l'existence de gisements économiquement exploitables, à en établir la nature, la valeur et les dimensions, et à déterminer tous les facteurs permettant de definir les moyens techniques nécessaires à l'exploitation. Ces travaux incluent l'extraction de ressources minérales en quantités suffisantes pour procéder à tous les essais préalables à la mise en exploitation ;

Exploitation, l'extraction de ressources minérales à des fins commerciales.

Art. 3. — Aucune personne physique ou morale de nationalité française ne peut entreprendre des activités d'exploration ou d'exploitation des ressources minérales des fonds marins si elle n'a pas été, au préalable, autorisée à le faire :

En vertu d'un permis d'exploration ou d'un permis d'exploitation délivré par la République française ;

Ou en vertu de permis équivalents délivrés par un Etat assurant la reciprocité au sens de l'article 13.

Art. 4. — Les conditions d'application de la présente loi et notamment les conditions de délivrance, de prolongation, de cession, d'amodiation, de renonciation et de retrait des permis d'exploration et d'exploitation sont fixées par décret en Conseil d'Etat.

La procédure de l'instruction de ces demandes garantira le caractère confidentiel des informations spécifiques fournies par les demandeurs.

Les permis attribués au titre de la présente loi ne pourront dépasser une surface totale d'une étendue raisonnable tenant compte des intérêts légitimes des autres Etats.

Art. 5. — Le permis d'exploration et les permis équivalents, prévus à l'article 3 confèrent à leur titulaire le droit exclusif d'entreprendre des activités de prospection et d'exploration des ressources minérales des fonds marins :

Dans un périmètre dont les dimensions tiennent compte des caractéristiques connues du site et du programme des travaux, programme qui doit permettre une exploration intensive ;

Pour une durée initiale permettant à la fois la réalisation du programme d'exploration, la construction et les essais des équipements prototypes pour la collecte et, s'il y a lieu, le traitement des ressources minérales.

Art. 6. — Le permis d'exploration fixe les obligations du titulaire et notamment l'effort financier minimal que celui-ci s'engage à réaliser.

Celui-ci peut seul obtenir, pendant la durée de validité de son permis, un permis d'exploitation à l'intérieur du périmètre prévu par son permis d'exploration. Ce permis est de droit sur une superficie n'excédant pas la moitié de celle du

Loi n° 81-1135 TRAVAUX PREPARATOIRES (1)

Sénat :

Projet de loi n° 384 (1980-1981) ;
Rapport de M. Mossion, au nom de la commission des affaires économiques, n° 407 (1980-1981) ;
Discussion et adoption le 8 octobre 1981.

Assemblée nationale :

Projet de loi, adopté par le Sénat, n° 465 ;
Rapport de M. Duplat, au nom de la commission de la production, n° 557 ;
Discussion et adoption le 24 novembre 1981.

Décision du Conseil constitutionnel du 16 décembre 1981, publiée au *Journal officiel* du 18 décembre 1981.

permis d'exploration si le titulaire a apporté la preuve que l'exploitation est possible ; en cas de contestation, il est statué sur avis conforme du conseil général des mines.

Art. 7. — Le permis d'exploitation et les permis équivalents prévus à l'article 3 confèrent à leur titulaire le droit exclusif d'entreprendre des activités de prospection, d'exploration et d'exploitation des ressources minérales des fonds marins :

Dans un périmètre dont les dimensions doivent permettre une exploitation pendant la durée indiquée ci-dessous, en tenant compte des techniques disponibles et des caractéristiques physiques du gisement ;

Pour une durée initiale compatible avec l'économie générale du projet.

L'octroi du titre est assorti des obligations imposées au titulaire, et notamment d'un programme minimal de production.

Aucun permis d'exploitation n'autorisera le démarrage de l'exploitation avant le 1er janvier 1988.

Art. 8. — Le titulaire de permis d'exploration ou d'exploitation jouit, pour les activités prévues aux articles 5 et 7, de l'exclusivité à l'égard de toute personne physique ou morale de nationalité française ou de toute personne agissant conformément à la législation d'un Etat assurant la réciprocité au sens de l'article 13.

Art. 9. — Outre les obligations prévues aux articles 6 et 7, le titulaire d'un permis d'exploration ou d'exploitation doit :

Respecter les obligations qui peuvent lui être imposées par les autorités françaises pour assurer la protection du milieu marin, la conservation des gisements et la sécurité des biens et des personnes ;

Ne pas gêner indument l'exercice des libertés de la haute mer.

Art. 10. — Sous réserve des dispositions du traité instituant la Communauté économique européenne et des textes pris pour son application, les transports maritimes ou aériens entre le territoire français et les installations et dispositifs mis en place au-dessus des fonds marins seront réservés, sauf dérogation accordée par le ministre compétent, aux navires battant pavillon français et aux aéronefs français.

Art. 11. — Les mesures prises pour l'application de la loi du 11 juillet 1938 sur l'organisation générale de la nation pour le temps de guerre sont applicables aux ressources minérales explorées ou exploitées en vertu des articles 6 et 7 de la présente loi.

Art. 12. — Les titulaires de permis d'exploration ou d'exploitation obtenus en vertu de la présente loi sont assujettis au paiement d'une redevance perçue sur chaque tonne nette de produits bruts extraits, dont le montant est égal à 3,75 p. 100 de la valeur de ces produits.

Le produit de cette redevance sera utilisé dans les conditions définies dans le cadre des lois de finances.

Art. 13. — Aux fins de la présente loi, la qualité d'Etat assurant la réciprocité peut être reconnue, par accord international, aux Etats qui reconnaissent les permis délivrés en vertu de la présente loi en s'interdisant de délivrer à quiconque des droits quelconques sur tout ou partie des périmètres couverts par ces permis et qui adoptent et mettent en vigueur une législation comportant des effets équivalents à ceux de la présente loi.

Les accords internationaux susvisés traitent notamment de la reconnaissance par le Gouvernement français des droits accordés pour l'exploration et l'exploitation des ressources minérales des fonds marins par un Etat assurant la réciprocité et du mécanisme d'enregistrement des demandes de permis présentées et des permis délivrés, permettant l'information réciproque des Etats parties.

Art. 14. — Le permis d'exploration ou d'exploitation peut, après mise en demeure adressée au titulaire, être retiré dans l'un des cas suivants :

a) Défaut de paiement, pendant plus de deux ans, de la redevance prévue à l'article 12 ;

b) Cession ou amodiation non régulièrement autorisée ;

c) Infractions graves aux prescriptions de sécurité, d'hygiène et de police et notamment à celles assurant la protection de la faune et de la flore marines ;

d) Pour les permis d'exploration : inactivité persistante ou activité sans rapport avec l'effort financier imposé ;

e) Pour les permis d'exploitation : absence ou insuffisance prolongée d'exploitation avec production inférieure au programme ; exploitation effectuée dans des conditions telles qu'elle est de nature à compromettre sérieusement l'intérêt économique, la conservation et l'utilisation ultérieure des gisements ;

f) Inobservation des conditions fixées dans l'acte institutif, méconnaissance des règles imposées en ce qui concerne les personnes détenant le contrôle de l'entreprise.

Art. 15. — Tout Français ou tout dirigeant d'une personne morale française qui exercera sur les fonds marins une activité :

1. D'exploration ou d'exploitation de leurs ressources sans l'autorisation prévue à l'article 3 ;

2. De prospection à l'intérieur des limites d'un permis d'exploration ou d'exploitation sans en être titulaire,

sera puni d'une amende de 50 000 F à 500 000 F.

En cas de récidive, la peine d'amende sera portée au double.

Tout titulaire de permis d'exploration ou d'exploitation qui enfreindra les obligations qui lui incombent en vertu de l'article 9 ci-dessus et des textes éventuellement pris pour son application sera puni d'une amende de 50 000 F à 500 000 F. En cas de récidive, la peine d'amende sera portée au double.

Les infractions prévues ci-dessus sont de la compétence du tribunal correctionnel du lieu de la résidence du prévenu ou de sa dernière résidence connue, ou du lieu où il a été trouvé.

A défaut de tout autre tribunal, le tribunal compétent est le tribunal de grande instance de Paris.

Sont chargés de constater les infractions prévues ci-dessus, outre les officiers et agents de police judiciaire, les administrateurs des affaires maritimes, les officiers des corps technique et administratif des affaires maritimes, les personnels embarqués d'assistance et de surveillance des affaires maritimes, les officiers et officiers mariniers commandant les bâtiments de la marine nationale, les ingénieurs des mines ou les ingénieurs des travaux publics de l'Etat affectés au service des mines, les ingénieurs des ponts et chaussées et les ingénieurs des travaux publics de l'Etat affectés aux services maritimes ainsi que les agents desdits services commissionnés à cet effet, les commandants des navires océanographiques de l'Etat, les commandants de bord des aéronefs militaires et des aéronefs de l'Etat affectés à la surveillance des eaux maritimes et les agents des douanes.

Les procès-verbaux constatant les infractions prévues au présent article font foi jusqu'à preuve du contraire. Ils sont transmis immédiatement au procureur de la République par l'agent verbalisateur.

Art. 16. — La présente loi est applicable à la collectivité territoriale de Mayotte.

La présente loi sera exécutée comme loi de l'Etat.

Fait à Paris, le 23 décembre 1987.

FRANÇOIS MITTERRAND.

Par le Président de la République

Le Premier ministre,
PIERRE MAUROY.

Le ministre d'Etat,
ministre de l'intérieur et de la décentralisation,
GASTON DEFFERRE.

Le ministre d'Etat, ministre des transports,
CHARLES FITERMAN.

Le garde des sceaux, ministre de la justice,
ROBERT BADINTER.

Le ministre des relations extérieures,
CLAUDE CHEYSSON.

Le ministre de la défense,
CHARLES HERNU.

Le ministre délégué auprès du ministre de l'économie et des finances, chargé du budget,
LAURENT FABIUS.

Le ministre de l'industrie,
PIERRE DREYFUS.

Le ministre de la mer,
LOUIS LE PENSEC.

DECRET N° 82-111 DU 29 JANVIER 1982

...is pour l'application de la loi du 23 décembre 1981 sur l'exploration et l'exploitation des ressources minérales des grands fonds marins (*J.O.* 31 janvier 1982).

Le Premier ministre,

Sur le rapport du ministre des relations extérieures, du ministre de la défense, du ministre de l'économie et des finances, du ministre délégué auprès du ministre de l'économie et des finances, chargé du budget, du ministre de l'industrie, du ministre de l'environnement, du ministre de la mer et du ministre des P.T.T.,

Vu la loi n° 81-1135 du 23 décembre 1981 sur l'exploration et l'exploitation des ressources minérales des grands fonds marins, et notamment ses articles 4 et 7 ;

Vu la loi n° 76-629 du 10 juillet 1976 relative à la protection de la nature et le décret n° 77-1141 du 12 octobre 1977 pris pour l'application de l'article 2 de cette loi ;

Vu l'avis du conseil général des mines ;

Le Conseil d'Etat (section des travaux publics) entendu,

Décrète :

Art. 1er. — Le présent décret s'applique aux dépôts de concrétions situés dans les fonds marins et contenant au moins l'un des éléments suivants : manganèse, nickel, cuivre et cobalt.

CHAPITRE Ier

DES TITRES MINIERS

Art. 2. — L'instruction des permis d'exploration et des permis d'exploitation, les actes affectant leur durée, leurs limites ou leurs titulaires, le retrait de ces titres ainsi que les conditions et obligations auxquelles doivent satisfaire les demandeurs et les titulaires sont réglés par le présent décret.

Art. 3. — La demande d'un permis d'exploration ou d'exploitation est adressée au ministre chargé des mines ; elle est accompagnée d'une notice d'impact.

Les conditions dans lesquelles sont établies les demandes et leurs annexes sont fixées par arrêté du ministre chargé des mines.

Art. 4. — La demande de permis d'exploration comporte un plan de travail. Celui-ci comprend une description du projet indiquant notamment le calendrier prévu, les méthodes à utiliser pour l'exploration, les mesures destinées à la protection et à la surveillance du milieu marin.

La demande comporte l'engagement de réaliser un montant minimal de dépenses d'exploration et de dépenses de mise au point de procédés de ramassage des ressources minérales des fonds marins.

L'échelonnement prévu de ces dépenses pendant la durée du permis doit être indiqué. Il doit permettre de reconnaître un éventuel gisement et d'en décider la mise en exploitation dans les plus brefs délais.

Art. 5. — La demande de permis d'exploitation comporte un plan de travail. Celui-ci comprend une évaluation des réserves mises en évidence par l'exploration, un calendrier de la mise en exploitation avec indication des tonnages minimaux annuels que le demandeur s'engage à extraire, les mesures destinés à la protection et à la surveillance du milieu marin.

Les tonnages minimaux annuels à extraire peuvent être diminués avec l'accord du ministre chargé des mines après avis du conseil général des mines, en cas de modification substantielle des conditions économiques de l'exploitation.

Art. 6. — Le ministre chargé des mines, après avoir vérifié la régularité de la demande, fait notifier immédiatement les coordonnées du périmètre aux gouvernements des Etats assurant la réciprocité au sens de l'article 13 de la loi susvisée du 23 decembre 1981 et les fait publier au *Journal officiel* de la République française.

Art. 7. — Nul ne peut obtenir un permis d'exploration ou d'exploitation s'il ne possède les capacités techniques et financières nécessaires pour mener à bien l'exploration ou l'exploitation en vue desquelles le titre est demandé.

Art. 8. — Le ministre chargé des mines consulte sur les demandes de permis les ministres chargés des relations extérieures, de la défense, de l'économie, du budget, de la marine marchande, de l'environnement et des services extérieurs des télécommunications.

L'objet de cette consultation est notamment de vérifier si les activités projetées sont compatibles avec les dispositions des accords internationaux auxquels la France est partie. Elle est effectuée de manière à assurer la protection des informations de caractère confidentiel fournies par le demandeur.

Art. 9. — Il est statué sur les demandes de permis, après avis du conseil général des mines, par décret en Conseil d'Etat, dans un délai de douze mois après leur dépôt. Ce délai est prolongé de trois mois s'il y a des demandes concurrentes. Sont considérées comme concurrentes les demandes portant sur tout ou partie de la surface sollicitée et déposées dans un délai de deux semaines après la publication au *Journal officiel* de la demande initiale.

En cas de demandes concurrentes, le choix du titulaire est effectué en tenant compte notamment des dates de dépôt des demandes, de l'importance et de la qualité des travaux déjà réalisés par les demandeurs sur la surface sollicitée, de leurs capacités techniques et financières, des programmes proposés et, le cas échéant, des permis qui leur ont été déjà attribués.

L'institution d'un permis d'exploitation laisse subsister un permis d'exploration antérieur pour les surfaces situées à l'extérieur du permis d'exploitation.

Les permis sont institués pour une période initiale ne pouvant excéder dix ans pour les permis d'exploration et vingt ans pour les permis d'exploitation.

Art. 10. — Si une demande de permis porte en totalité ou en partie sur des surfaces qui ont fait l'objet d'une autorisation d'exploration ou d'exploitation notifiée par un Etat assurant la réciprocité, la demande de permis est rejetée en ce qui concerne ces surfaces.

Si une demande de permis porte, en totalité ou en partie, sur des surfaces pour lesquelles le gouvernement français a déjà reçu d'un Etat assurant la réciprocité notification que cet Etat a, lui-même, reçu une demande d'autorisation d'exploration ou d'exploitation, la décision sur la demande est, en ce qui concerne lesdites surfaces, réservée jusqu'à ce qu'il soit statué sur ce cas par les Etats intéressés.

Art. 11. — La demande de prolongation d'un permis est adressée au ministre chargé des mines au moins quatre mois avant son expiration, dans les conditions fixées par arrêté du ministre chargé des mines.

Elle est accompagnée d'un mémoire détaillé qui indique les travaux effectués et leurs éventuelles conséquences sur le milieu marin, ainsi que :

— dans le cas d'un permis d'exploration, les dépenses effectuées, les réserves mises en évidence, le plan envisagé pendant la nouvelle période de validité et le montant minimal de dépenses que le demandeur s'engage à y consacrer ;

— dans le cas d'un permis d'exploitation, les tonnages produits, une évaluation des réserves restantes et une indication des tonnages minimaux annuels que le demandeur s'engage à extraire dans les conditions fixées à l'article 5 du présent décret.

Il est statué sur la demande de prolongation par décret en Conseil d'Etat après avis du conseil général des mines. La durée pour laquelle la prolongation est accordée ne peut excéder cinq ans pour les permis d'exploration et dix ans pour les permis d'exploitation. De nouvelles prolongations peuvent être accordées dans les mêmes conditions.

Art. 12. — Le titulaire d'un permis d'exploration ou d'exploitation peut céder ou amodier tout ou partie de son titre, sous réserve d'une autorisation par décret en Conseil d'Etat après avis du conseil général des mines. Le cessionnaire ou l'amodiataire bénéficie de tous les droits et est soumis à toutes les obligations du cédant ou de l'amodiant.

Art. 13. — Le titulaire d'un permis d'exploration ou d'exploitation peut à tout moment renoncer à son titre pour tout ou partie de la surface faisant l'objet du permis, sous réserve d'une autorisation par décret en Conseil d'Etat après avis du conseil général des mines. En cas de renonciation partielle, ce décret détermine les modifications éventuellement apportées aux obligations imposées au titulaire.

Art. 14. — Le retrait d'un permis d'exploration ou d'exploitation prévu à l'article 14 de la loi susvisée du 23 décembre 1981 est prononcé par décret en Conseil d'Etat après avis du conseil général des mines.

CHAPITRE II

DE L'EXÉCUTION DES TRAVAUX

Art. 15. — Les programmes de travaux sont soumis à déclaration. A cet effet, le titulaire d'un permis doit adresser au ministre chargé des mines ses programmes de travaux quarante-cinq jours avant la date prévue pour leur mise à exécution. Ces programmes doivent être accompagnés, pour les travaux d'exploration, d'une notice d'impact sur l'environnement et, pour les travaux d'exploitation, d'une étude d'impact au sens de l'article 2 de la loi susvisée du 10 juillet 1976.

Art. 16. — Ces programmes sont examinés par une commission siégeant auprès du ministre chargé des mines et comprenant :

Un membre du conseil général des mines, président ;
Un représentant du ministre chargé des relations extérieures ;
Un représentant du ministre chargé de la défense ;
Un représentant du ministre chargé de la marine marchande ;
Un représentant du ministre chargé de l'économie ;

Un représentant du ministre charge du budget ;
Un représentant du ministre chargé des services extérieurs des télécommunications ;
Un représentant du ministre chargé de l'environnement ;
Un représentant du ministre charge des mines, rapporteur.

Art. 17. — Les travaux peuvent être interdits en tout ou en partie ou soumis à des conditions particulières par arrêté du ministre chargé des mines après avis de la commission, si leur exécution est de nature à compromettre l'intégrité du milieu marin, la conservation des gisements, la sécurité des biens et des personnes, la pose, l'entretien ou le fonctionnement des câbles ou canalisations sous-marines, ou si ces travaux sont de nature à gêner de manière injustifiable la navigation, la pêche, les liaisons de télécommunications, la conservation des ressources biologiques de la mer ou les recherches océanographiques fondamentales.

Les mesures prévues en vertu du présent article sont notifiées au titulaire par le ministre chargé des mines. En l'absence de notification dans le délai de quarante-cinq jours suivant la présentation du programme des travaux, le titulaire peut procéder à l'exécution de ce programme.

Le titulaire doit fournir au ministre chargé des mines un rapport annuel détaillé sur les travaux réalisés.

Art. 18. — Le décret n° 81-555 du 12 mai 1981 relatif au dossier de demandes intéressant les activités d'exploration des ressources minérales des grands fonds marins est abrogé. Les demandes présentées en vertu de ce décret sont instruites conformément aux dispositions du présent décret.

Art. 19. — Le ministre des relations extérieures, le ministre de la défense, le ministre de l'économie et des finances, le ministre délégué auprès du ministre de l'économie et des finances, chargé du budget, le ministre de l'industrie, le ministre de l'environnement, le ministre de la mer et le ministre des P. T. T. sont chargés, chacun en ce qui le concerne, de l'exécution du présent décret, qui sera publié au *Journal officiel* de la République française.

THE VIABILITY OF A DUAL APPROACH: CONVENTION AND RECIPROCAL REGIMES

Guenther Jaenicke
Professor of International Law
Frankfurt University

The title of my report needs some interpretation. I use the term "dual approach" for describing the present situation in the deep seabed mining sector, a situation which is characterized by the fact that pioneer activities on the international seabed are undertaken under different regimes, on the one hand within the framework of the Law of the Sea Convention under the cover of Conference Resolution II relating to the protection of pioneer investments and on the other hand under the cover of so-called "reciprocity agreeements." In my opinion, the existence of two different legal regimes is most unfortunate, but we have to face this fact as long as no consensus can be achieved on an universally acceptable legal regime.

I am convinced that there was and still is general agreement among states that a legal regime for the international seabed, in order to be viable, must be based on an "international treaty of universal character, generally agreed upon" (UN General Assembly Declaration of Principles Governing the International Seabed, No. 2749 (XXV), 17 December 1970). It should, therefore, remain a primary object of international maritime policy to conciliate the divergent approaches under a truly universal regime embracing all states, and in particular all those which have the technical and financial capability to exploit the resources of the international seabed. Such a policy requires patience and flexibility on both sides: the advocates of the regime presently contained in the Convention should recognize the need for accommodating the legitimate concerns of the deep sea mining states through an appropriate adjustment of some objectionable provisions of the Convention; the critics of the conventional regime should recognize the need for a regime along the lines of the Convention in order to provide for international security of tenure, equitable distribution of mine sites, and uniform rules of control over mining operations on the seabed comparable to the mining regimes in domestic law. What is most important in the present situation is not to close the door for those who are still reluctant to join the Convention and to avoid legal action which might result in a permanent division of the two camps.

I would like to start a brief analysis of the present factual situation:

(1) According to the latest estimates by industrial circles the commercial exploitation of the deep seabed will probably not commence before 1995. The reasons for the delay are partly economic, partly technical, and partly legal. The economic situation on the metal markets coupled with uncertainty about

security of tenure provides no incentives for investing capital in costly and long-term mining ventures on the international seabed. The slow progress in the development of deep sea mining has destroyed some of the premises on which the procedure and time limits of the present conventional regime have been based.

(2) The states which have signed the Convention seem to be still reluctant to bring the conventional regime into operation before it will have the backing of all major industrialized states, including the United States, and the financial burdens of the conventional regime are then more widely shared. Thus, it may well be that a considerable time will pass before the Convention enters into force unless other motives lead to an earlier ratification.

The postponement of commercial exploitation to the next decade provides sufficient time and opportunity to explore the practical possibilities in bringing the divided camps together in a joint search for a generally acceptable and viable universal international seabed regime in which all states, including the United States, will participate. Such a regime should preferably remain based on the existing Convention provided any well-founded objections against some of its provisions could be adequately accommodated. I shall return to this point later. For the moment, it may suffice to state that the "dual approach" has not yet led to such a divergence between the two legal regimes as to foreclose a reconciliation of the two approaches. I shall demonstrate this by analyzing the legal relationship between the conventional regime and the "reciprocity agreements."

While the legal regime, which will eventually govern the commercial exploitation of the seabed, is not an immediate problem, states and their mining industries are presently more concerned with the problem of how they could secure international recognition for exclusive and undisturbed rights to geographically defined "mine sites" where their "pioneer investors" could start exploratory activities and would enjoy security of tenure for later commercial exploitation. It has already become apparent that the first generation of mining ventures (the so-called "pioneer investors") will need a longer exploratory phase than originally anticipated, in particular for the testing of the new equipment in small- and large-scale pilot projects before commercial exploitation will be considered feasible. The present economic situation on the metal markets increases the reluctance to spend risk capital for this purpose and will slow down the pioneer activities even more, if it has not already done so. Thus, security of tenure for a longer period has become even more important.

As long as the present "dual approach" continues, the pioneer investors have a legitimate interest in having their exclusive right to the mine site which they are about to develop recognized or at least respected by both groups of states, by those that adhere to the conventional system as well as by those that practice the "reciprocal agreements" system. To deny states the right to obtain the widest international recognition

of their pioneer investors' right to the chosen mine site, both through Conference Resolution II as well as through a wide range of reciprocity agreements, would not only foreclose a later reconciliation of both approaches but would further stifle activities for the development of seabed mining.

Let us now examine how far presently Conference Resolution II and the so-called "reciprocity agreements" provide for the international protection of mine sites of "pioneer investors" and how far both systems are interrelated.

Under Conference Resolution II a State may acquire for itself or an enterprise of its nationality or under its control the exclusive right to undertake exploratory work on a specifically registered mine site and, on that basis, after the entry into force of the Convention, enjoy a privileged position for obtaining an authorization for the commercial recovery of manganese nodules from that site. For this purpose the State has to register the mine site with the Preparatory Commission for the International Seabed Authority. The main conditions for registering a mine site are the following:

(1) the sponsoring State must have signed the Convention;
(2) the State or the enterprise which seeks the recognition as "pioneer investor" must have already undertaken "pioneer activities" (as defined by the Resolution) with respect to the chosen site before 1 January 1983 (for developing countries: 1 January 1985);
(3) the pioneer investor must fulfill certain obligations (e.g., pay an initial fee of US $250,000 and an annual fee of US $1 million, incur a certain expenditure for exploratory work, offer a second prospected site to be reserved for the International Enterprise to be established under the Convention).

The application for registration as "pioneer investor" for a certain mine site will, however, not be processed until conflicts of overlapping sites have been resolved by negotiation or arbitration between the pioneer investors concerned. The Resolution allows each pioneer investor to register only one mine site for further pioneer activities; however, this does not prevent a pioneer investor from submitting more than one mine site to the conflict resolution procedure because substantial overlaps may be discovered and because he will have to offer a second site to be reserved for the International Enterprise.

This procedure has the effect that the right of a "pioneer investor" to its registered mine site will have to be recognized by all other "pioneer investors" which have been registered or may later be registered under Resolution II -- that is, by all actual or potential pioneer investors and their sponsoring states. This recognition is, of course, limited to those states which have signed the Convention and does not have any legal force vis-a-vis those states which still remain outside the Convention. Therefore, it is legitimate and even indispensable for states and their pioneer investors which have registered

under Resolution II to seek recognition through special reciprocity agreements.

Resolution II cannot be interpreted as prohibiting the conclusion of "reciprocity agreements" for the sole purpose of securing legal protection for the registered mine site. Resolution II does not contain a provision which calls for a negative attitude vis-a-vis non-signatory states comparable to Article 137 paragraph 3 of the Convention which proclaims that rights to the resources of the seabed which are not based on the Convention will not be recognized; paragraph 5(b) of the Resolution merely obliges the sponsoring state -- although not yet formally bound by the Convention -- nevertheless to ensure that the registered pioneer activity will be conducted in a manner compatible with the standards prescribed by the Convention. It is true that Resolution II is meant to be the exclusive basis for the recognition of pre-conventional seabed activities, but it cannot be considered inconsistent with this purpose if a state seeks to secure legal protection of its registered mine site also from a non-signatory state. The reciprocal obligation to respect the non-signatory state's mine sites is the inevitable price for obtaining the same respect from the non-signatory state; these reciprocal obligations remain strictly bilateral and do not provide the non-signatory state with a legal position vis-a-vis other parties of the Convention.

The so-called "reciprocity agreements" which have so far been concluded or are about to be concluded between the United States and other Western industrialized states (Belgium, France, Federal Republic of Germany, Italy, Japan, Netherlands, United Kingdom) pursue no other object than as are contained in Resolution II, namely to resolve conflicts with respect to overlapping claims and to secure the reciprocal respect for each other's mine sites. It would be incorrect to qualify these agreements as establishing already a separate regime for the international seabed outside the Convention; the agreements qualify themselves as "interim" or "provisional" measures and contain clear language to the effect that they are without prejudice and do not affect the position of the parties or any obligations assumed by them with respect to the Convention. In contrast to the aforementioned Resolution II they do not impose any financial obligations or work requirements on the investors but leave that to the states parties. This system is certainly more attractive to pioneer investors than the more onerous system of Resolution II, and pioneer investors will be reluctant to urge their governments to register them under Resolution II. On the other hand, reciprocal recognition of mine sites is limited to the states parties to these agreements. But it may be noted in this context that the "reciprocity agreements" do not prevent a party to these agreements from seeking simultaneously registration for its pioneer investors under Resolution II in order to obtain recognition from all states which have signed the Convention.

The legal analysis of the scope of protection which Conference Resolution II and the "reciprocity agreements" may provide for pioneer investors allows the following conclusion: those states which have signed the Convention have a reasonably safe way to secure the widest international recognition of the mine sites of their pioneer investors: in relation to the signatories of the Convention by registering under Resolution II and in relation to the non-signatories by concluding "reciprocity agreements" with all actual or potential deep sea mining states among them.

For those states which have not signed the Convention until 9 December 1984 when the time limit for signature expires, the legal situation will be much more difficult. Of course, it is legally possible for non-signatory states to conclude agreements which provide for conflict resolution of overlapping claims and for reciprocal respect of each other's mine sites with all potential deep sea mining states among the signatories. However, it is a fact that the USSR and other potential deep sea mining states among the Group of 77 have so far refused to negotiate and conclude such reciprocity agreements with non-signatory states on the ground that any unilateral deep sea mining activities outside the framework of the Convention are illegal. While I cannot accept this reasoning as legally valid under general international law because this position of the Group of 77 has consistently been rejected by the Western industrialized states, it is certainly open for signatory states to refuse reciprocal arrangements with non-signatory states in order to safeguard the exclusiveness of the approach under Resolution II and to force states to sign the Convention.

Whether this negative attitude will continue after the time limit for signature of the Convention has lapsed is an open question, but it must be taken into account. The consequence will be that the unsatisfactory situation of two groups of pioneer investors operating under different regimes will persist, with the dangerous prospect of overlapping claims and unresolved conflicts about the better right to a specific mine site. Both sides will hopefully realize that it would be in their common interest to avoid conflicts over mine sites during the pioneer stage of deep sea mining until final decisions with respect to the regime for commercial exploitation will be taken. At least one could hope for a de facto reciprocal toleration and non-disturbance of each other's pioneer activities. It remains doubtful, however, whether this will suffice to create a favorable investment climate unless the sponsoring states offer the investor substantial and long-term political and financial guarantees against the international risk involved.

The unsatisfactory position of a non-signatory state is one of the reasons, among others, why I recommend the signing of the Convention.

A new situation will arise when the Convention enters into force because the special legal regime for pioneer investors under Resolution II will then be terminated (paragraph 14 of the Resolution). This may already happen when the pioneer ventures

of the first generation will still be in the exploration phase and the stage of commercial production will not yet have been reached. It can be assumed that the signatory states are reluctant to bring the conventional regime with the concomitant financial burdens into operation before commercial exploitation is in sight, but there may be other motives, among them the interest in activating other parts of the Convention, to ratify it earlier. For this contingency it must be asked whether the "dual approach" can legally be maintained after the Convention has entered into force. The following problems will then arise:

(1) Resolution II provides that the registered "pioneer investor" will lose its status if his sponsoring state does not ratify the Convention within six months after the entry into force of the Convention (a rigid time limit which may only be prolonged for another six months by a three-quarters majority of the Council of the International Sea-bed Authority). This would have the consequence that the "pioneer investor" will lose the exclusive right to his mine site under the regime of the Resolution and will no longer enjoy priority in obtaining one of first production authorizations for his mine site from the International Sea-bed Authority under the Convention; he will, however, still benefit from the conflict resolution procedure under Resolution II in case of overlapping claims, and he will retain his claim in equity to his mine site in case of a later application for a exploration and exploitation contract after his sponsoring state will have ratified the Convention. The "pioneer investor" can avoid the negative consequences of non-ratification only if he changes his nationality in order to obtain the sponsorship of a state which has already ratified the Convention (paragraph 10 of Resolution II). Under these circumstances the "reciprocity agreements" which have been concluded by his sponsoring state will be of even higher value than before for the protection of the exclusive right of a "pioneer investor" to his mine site.

(2) If the sponsoring state of a registered "pioneer investor" ratifies the Convention in time to preserve his privileged position under Resolution II, the question will then arise whether the sponsoring state, as a party to the Convention, can validly maintain "reciprocity agreements" with those states which have not signed or ratified the Convention. I would answer this question in the affirmative provided these agreements have the sole purpose of resolving conflicts in case of overlapping claims and of securing reciprocal respect for each other's mine sites. The reasons for my legal position in this respect are basically the same as in the case where such "reciprocity agreements" with non-signatories are maintained by states which have signed the Convention. The legitimate interest of pioneer investors and their states to secure respect for their mine sites from all states remains the same and cannot reasonably be disputed.

(3) The only legal impediment may arise from Article 137 paragraph 3 of the Convention which provides that rights to the resources of the seabed which are not based on the Convention

shall not be recognized. This article might be interpreted as imposing a legal obligation on each individual state which is a party of the Convention to desist from any action which amounts to such a recognition. I have serious doubts whether Article 137 paragraph 3 really spells out an obligation of non-recognition and, even if so, whether this obligation addresses the individual parties of the Convention. The wording of Article 137 paragraph 3 suggests rather that it is meant to be a general declaration to the effect that claims to resources of the seabed which are not based on the Convention cannot expect recognition under the Convention. Be that as it may, "reciprocity agreements" which are confined to conflict resolution and to the assurance of reciprocal non-disturbance of each other's mine sites do not amount to a legal recognition of an international right to mine the resources from that site; this is particularly so as long as no commercial exploitation is envisaged, i.e., during the exploratory phase.

I conclude, therefore, that the entry into force of the Convention does not legally prevent a state party which has ratified the Convention from maintaining "reciprocity agreements" with states which have not signed or ratified the Convention.

I anticipate that during the pioneer phase of exploration the dual approach will probably continue in the sense that some pioneer investors are exploring pioneer sites partly inside and partly outside the framework of the Convention. However, the entry into the phase of commercial exploitation, which will not necessarily coincide with the entry into force of the Convention, will create serious problems for the continuation of seabed activities under two different legal regimes, both inside as well as outside the Convention. The magnitude of a long-term mining venture for the commercial recovery of manganese nodules from the deep seabed requires a universally recognized legal security of tenure that can only be provided by a universally recognized legal regime. Such a legal security cannot be provided to a sufficient degree by "reciprocity agreements" if a major part of the international community of states remains hostile to seabed activities which are pursued outside the conventional regime and refuses to recognize their legality. On the other hand, the Convention equally fails to provide a sufficiently broad legal, administrative, and financial basis for commercial seabed activities as long as the United States and possibly other deep sea mining states do not participate. A reciprocal toleration practiced by the parties of both regimes might be theoretically conceivable, in particular as long as the correlation between Convention and "reciprocity agreements" can be maintained. But the prolonged existence of two separate regimes will in the long run create unequal conditions, result in conflicts about the distribution of mine sites, and prevent an effective and economic management of resources. The absence of universal recognition of exploitation rights on a certain mine site might even create a temptation for coastal states to extend their jurisdiction beyond their continental shelf into

those areas of the deep seabed over which they are able to exercise effective control. Therefore, it will be in the common interest of the international community, in particular of the developing states, that before seabed activities reach the stage of commercial exploitation states should agree on a universally applicable regime.

Fortunately, the deferment of commercial exploitation of the international seabed to the next decade provides time and opportunity to consider the practical political and legal possibilities how the United States and other states which do not regard the present Convention acceptable to them could be brought to accept a conventional regime. Such discussions should be encouraged and be undertaken in all appropriate fora, in particular within the Preparatory Commission which has primary responsibility for establishing a viable international seabed regime. If these efforts are to succeed, it will not only require a more positive attitude of the United States in assessing the advantages of a universally recognized conventional regime, but also some adjustment of the present Convention in order to make it more acceptable to the deep sea mining states and to cure those defects of the conventional regime that have already become apparent under the changed prospects of deep sea mining. Such an adjustment could be brought about by devising appropriate rules and procedures which mitigate the effect of some over-rigid provisions of the Convention and, if necessary, by revising some provisions of the Convention which have met with the most serious objections. I cannot go into details here. I merely mention some major issues -- for example, the production control system, the financial burdens imposed on investors, and, in particular, the provision which allows a change to the regime after twenty-five years at the Review Conference by a three-quarters majority with binding effect for all parties to the Convention. It will be necessary to convince the deep sea mining states that their industries have a reasonable assurance under the Convention that their investments are not over-taxed but yield an equitable return and that they are not subject to unpredictable changes of the conventional regime. Otherwise, not only the United States, but also other industrialized states which have already signed the Convention, may become more and more hesitant to ratify the Convention.

If the Convention enters into force before all major deep sea mining states have ratified the Convention, it should seriously be considered whether it would not be advisable that the parties to the Convention postpone the entry into force of the seabed regime of the Convention in order to provide more time for a new effort to bring all major deep sea mining states under the regime of the Convention; another alternative would consist in a prolongation of Resolution II beyond the date of the entry into force of the Convention.

DEEP SEABED MINING -- THE UNITED STATES POSITION

David A. Colson
Assistant Legal Adviser for Oceans, International Environmental and Scientific Affairs
United States Department of State

I have been asked to speak on the subject of the United States position regarding deep sea bed mining -- the mining of the ocean floor beyond the limits of national jurisdiction.

As is normally the case, as a government official I must begin with a disclaimer. The views I am about to express are my own and do not necessarily reflect those of the United States Government.

In my comments today, I do not intend to develop in detail legal arguments in support of the United States position. The debate about res nullius, res communis, the legal effect of United Nations resolutions, etc., has been going on for some time, and there is not much I could usefully add in the short time available today.

Instead, I would like to give you my perspective on several aspects of the United States position which I believe are often overlooked by its critics. I will organize my discussion into two parts. In the first part, I will develop the point that the United States has maintained a consistent legal position on deep seabed mining from the first reference to the issue up to the present time. In doing so, I will summarize my understanding of that position, review past statements by United States spokesmen related to the position, and place the decision by the United States not to sign the 1982 LOS Convention into what I believe is an appropriate legal context. In the second part, I will describe how current United States deep seabed mining activities are consistent with its legal point of view. In doing so, I will refer to the agreement between the United States and seven other states, signed on 3 August 1984, and indicate why the United States believes that agreement is consistent with its legal perspective while at the same time not foreclosing the possibility that other states, with different legal positions, will pursue their interests in a different way.

THE UNITED STATES HAS MAINTAINED A CONSISTENT LEGAL POSITION ON DEEP SEABED MINING FROM THE FIRST REFERENCE TO THE ISSUE TO THE PRESENT TIME

There is a tendency on the part of some to believe that the change in the United States negotiating approach at the LOS Conference in 1981 also marked a shift in the United States legal position on deep seabed mining. This viewpoint is incorrect.

A Brief Summary of the United States Position

Let me begin with a brief summary of the United States legal position.

The United States has a sound legal basis on which to continue to engage in deep seabed mining, without signing or becoming a party to the 1982 Convention on the Law of the Sea. The United States may continue to maintain, as it has in the past, that deep seabed mining is a lawful use of the seas, despite the adoption and the opening for signature of the 1982 LOS Convention.

Both the executive and legislative branches of the United States Government have stated consistently the position of the United States that deep seabed mining on the seabed beyond the limits of national jurisdiction is a high seas freedom. According to the long established law of the high seas, which may be said to be codified by Article 2 of the 1958 Geneva Convention on the High Seas [1], there is no artificial limit to the enumeration of high seas freedoms. That which is not prohibited is permitted subject only to the duties to conserve resources and to have due regard for the rights and freedoms of others. This means that new uses of the seas, such as deep seabed mining, can be, and have been, considered exercises of high seas freedoms.

There is no body of international law binding upon the United States that prohibits the United States from deep seabed mining. It is a fundamental principle of international law that the rules of law binding upon states emanate from their own free will as expressed in conventions or by usages generally accepted as expressing principles of law. Restrictions upon the independent actions of states cannot therefore be presumed. The purported restriction on the United States -- the idea that the resources of the deep seabed may only be mined in accordance with the 1982 LOS Convention -- must be evaluated with this in mind.

There would seem to be three basic ways by which such a restriction might have come about: through acquiescence, by customary international law, or by a rule of jus cogens.

Acquiescence

It should be abundantly clear that the United States has not acquiesced in the view that deep seabed mining can be undertaken only pursuant to the 1982 LOS Convention. The record of United States practice, including the statements of its officials which will be reviewed in a moment, will not support a finding of such acquiescence.

Customary Law

Moreover, unlike its provisions concerning navigation and coastal state jurisdiction which reflect the practice of states, Part XI of the Convention cannot be said to create or reflect customary international law -- the practice of states -- binding upon the United States. The response to the claim that the text creates or reflects a customary law proscription of deep seabed

mining outside the Convention is that the record of United States practice and the practice and the public statements of the states with the most significant interests in deep seabed mining are contrary to that viewpoint. A Convention to which the United States is not a party cannot take away the freedom the United States enjoys concerning deep seabed mining. Treaties bind only the parties to them, and then only once they have entered into force. Thus, the deep seabed mining regime of Part XI, the core of which is the creation of a new international organization, can create rights and obligations only as among its parties.

Nor do the two principal resolutions of the United Nations General Assembly relating to deep seabed mining create customary international law binding upon the United States either (a) to establish a moratorium on deep seabed mining, or (b) to require acceptance of the regime negotiated at the Conference. In general, United Nations resolutions are not legal norms that legally compel the actions of States. The United States, and many other states with significant seabed mining interests, voted against the 1969 resolution declaring a moratorium on deep seabed mining while the LOS Conference continued [2]. The United States, in supporting the 1970 Declaration of Principles [3], indicated that it did not consider itself bound to refrain from deep seabed mining on the basis of that resolution.

Jus cogens

Finally, is the United States prohibited from engaging in deep seabed mining outside the Convention by a rule of jus cogens? No.

A rule of jus cogens may be defined as a:

> Peremptory norm of general international law ... accepted and recognized by the international community of States as a whole as a norm from which no derogation is permitted and which can be modified only by a subsequent norm of general international law having the same character [4].

In this category are the prohibition on aggressive war, genocide, racial discrimination, crimes against humanity, piracy and slavery. It is universally accepted by legal commentators that a rule of jus cogens must be based upon the virtually unanimous support for the principle on the part of all affected states. Any suggestion that the common heritage of mankind, as expressed by Part XI of the Convention, has attained the status of jus cogens fails for this reason along.

Thus, no rule of international law binding upon the United States compels it not to engage in deep seabed mining outside the Convention.

Legal Positions and Negotiating Positions Must Be Distinguished

The United States legal position regarding deep seabed mining has remained consistent throughout the Third Law of the Sea Conference to the present time. It may be that the United States changed its perspective from time to time as to how its ocean interests might be best assured, and it may have sought compromises to achieve stability, but its legal position on deep seabed mining has not changed.

Let me begin by examining what the United States said about the Moratorium Resolution of 1969, which declared: "States and persons, physical or juridical, are bound to refrain from all activities of exploitation of the resources of the area of the seabed and ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction" [5].

The United States and other states voted against the resolution [6]. The United States also publicly objected to the proposed moratorium and made clear that it considered the resolution to be recommendatory only and not binding. Ambassador John R. Stevenson, Legal Adviser of the Department of State, and an architect of early United States proposals for an international regime for the deep seabeds, had the following to say to a Congressional Committee in response to a question about the Moratorium Resolution:

> The Department does not anticipate any efforts to discourage U.S. nationals from continuing with their current exploration plans. In the event that U.S. nationals should desire to engage in commercial exploitation prior to the establishment of an internationally agreed regime, we would seek to assure that their activities are conducted in accordance with relevant principles of international law, including the freedom of the seas, and that their investment receives due protection in any subsequent international agreement [7].

At about the same time, Ambassador Stevenson explained that it was for the purpose of achieving international stability that the United States was prepared to engage in a negotiation about deep seabed mining, not that the United States believed that only through such negotiations could mining take place. He said:

> The U.S. has taken the position that an internationally agreed regime for exploitation of resources beyond national jurisdiction should be established as soon as practicable. While we believe that the general principles of the freedom of the seas do apply to this area, we recognize that to assure a reasonable degree of stability and the promotion of common international objectives, broad agreement on an international regime, including a clear system of rules which will minimize the potential for conflict, is necessary [8].

Thus, the United States was willing to negotiate to achieve stability, notwithstanding its confidence in its legal position. In 1970, when the United Nations General Assembly passed the Declaration of Principles [9], the United States voted in favor of the resolution. That declaration contains the statement that the seabed and ocean floor are the common heritage of mankind. Much meaning is given by some to this statement. But, again, one must note that the United States has consistently made clear its point of view. John Norton Moore, then Chairman of the National Security Council's Interagency Task Force on the Law of the Sea stated before Congress:

> Some states have suggested that it is possible to interpret the "Declaration of Principles" ... as legally prohibiting the exploitation of the deep seabed until the new international regime and machinery for that exploitation comes into effect. These states derive this interpretation from their understanding of the common heritage of mankind concept [10].

He said:

> Instead, we consider that the meaning of the principles of common heritage, as indicated by the principles which follow it in the resolution will be elaborated in the international regime to be established [11].

He went on to say:

> The United States ... has consistently maintained that its interpretation of the Declaration of Principles does not permit the derivation of a "moratorium effect" from this resolution [12].

And at about the same time, in another formal statement before Congress, the Acting Legal Adviser of the Department of State said:

> At the present time, under international law and the High Seas Convention, it is open to anyone who has the capacity to engage in mining of the deep seabed subject to the proper exercise of the high seas rights of the countries involved [13].

Finally, let me quote from a statement by Ambassador Richardson before the Plenary of the Conference on September 15, 1978:

> Legal restraints may be imposed on national action beyond the limits of the jurisdiction of any state only by their inclusion in rules of international law.

> With respect to seabed mining we are unaware of any such restraints other than those that apply generally to the high seas and the exercise of high seas freedoms, including the prohibition on sovereignty claims, the exclusive jurisdiction of states over their ships and nationals, and the duty to have reasonable regard for other high seas users. States will become subject to additional restraints when they adhere to a treaty that establishes an international authority to manage and oversee seabed mining. They will then have voluntarily accepted the alteration of those freedoms in the broader interest of creating a stable legal regime for the use and management of the world's oceans and their resources. But we cannot accept the suggestion that other States, without our consent, could deny or alter our rights under international law by resolutions, statements, and the like [14].

The United States never wavered in this position. In 1980 the Deep Seabed Hard Mineral Resources Act was passed [15]. That act took note of the U.S. support for the Declaration of Principles and it encouraged the continued negotiation toward a widely acceptable Law of the Sea Treaty. The act, as had earlier U.S. spokesmen, related the common heritage concept to assured and non-discriminatory access for United States nationals to mine deep seabed mineral resources. In the act the basic legal position of the United States is stated:

> It is the legal opinion of the United States that exploration for and commercial recovery of hard mineral resources of the deep seabed are freedoms of the high seas subject to a duty of a reasonable regard to the interests of other states in their exercise of those and other freedoms recognized by general principles of international law [16].

Accordingly, can there be any question of United States intent? Throughout the Third Conference, the United States maintained the position that deep seabed mining was a lawful use of the high seas beyond national jurisdiction. But, not being blind to the fact that others had a different viewpoint, the United States stood ready to negotiate a legal regime that could be accepted by those with other views. The United States never promised, however, to be bound by the result of the negotiation, regardless of its outcome. And, it is disingenuous to suggest that it so implied. No sovereign state would do so.

The Question of Good Faith

The United States decision not to sign the 1982 LOS Convention followed the failure to negotiate a comprehensive convention at the Conference that was acceptable to the United States. This "acceptability" was, of course, subjective. But

there was a significant legal factor that had to be taken into account: the text as it stood was not ratifiable by the United States. Under the Constitution of the United States, two-thirds of the Senate must agree before the President may ratify a treaty. So far as I am aware, no expert observer of the United States Senate ever stated that the text as it stood at any point could achieve such Senate advice and consent.

Thus, a legal question always present was, should the United States sign a treaty that it believed it could not ratify? There were always three choices.

One choice was to disregard political reality and sign the text as if it were acceptable notwithstanding the uncontroverted political judgment that the Senate would not accept it. This option was never seriously considered within the United States Government. The United States has a heritage of living up to its agreements. If it signs an agreement, it does so in good faith, convinced that the agreement will be submitted to the constitutional process and that there is a reasonable chance for ratification.

Some have said the United States negotiated in bad faith in the last stages of the Conference. That is a harsh charge which in my view does not withstand scrutiny. What is more, when it came to taking the legally cognizable act of signing the Convention. the United States also clearly acted in good faith by not leading others to believe that it might ratify the Convention. One must wonder if some of the states that did sign the Convention have not misled others in this respect. In my view some states, even major states in the negotiation, never had much of an intention to be bound. and do not even today. Yet they signed. and yet they criticize those that did not.

The second legal choice was to follow an early construct that was the touchstone of United States policy up to 1980. That is, to sign the Convention, once fundamental flaws had been renegotiated, on the understanding that the treaty would not be submitted to the Senate for advice and consent until satisfactory rules and regulations were adopted within the Preparatory Commission. This approach was designed to avoid a political charge of bad faith, but under it the legal effect of signature was not clear.

Assume for a moment that the United States had followed this approach and that the required minimum, but fundamental, changes had been negotiated after the Ninth Session. The United States would now be in PrepCom trying to get it to do something meaningful specifically to clarify the rules and regulations under which mining would take place. The Convention would not have been sent forward to the Senate. The United States would be holding its participation in the Convention regime hostage to the satisfactory outcome of PrepCom. On the other hand, the United States would have signed the text.

One reason that this approach became unacceptable as it was considered was that persons of a variety of legal and political viewpoints took differing stances on the question of the legal effect of signature of a convention. Those viewpoints were

expressed in categorical terms -- the net effect being that signature tied a state's hands almost to the same extent as if the convention were in force for that state. Here, in my view, an abstract principle of international law was misused. Some argued that if the United States signed and if PrepCom failed, the United States was stuck with a bad treaty and rules and regulations. Others took basically the same legal position but focused on the U.S. deep seabed mining law, arguing that further actions under that statute would be legally questionable after signature. Thus, both sides of the political argument sought to limit U.S. freedom of action after signature.

These two choices were examined and presented to the President, along with the third choice, that of making a clean breast of things and simply not signing the Convention. Implicit in this third choice, which was the choice ultimately adopted, was the requirement that the United States would have to find a way outside the Convention to protect its national interest in deep seabed mining.

THE CURRENT PRACTICE OF THE UNITED STATES IN RELATION TO DEEP SEABED MINING

I now turn to a discussion of current United States practice and legal outlook concerning deep seabed mining.

United States practice is premised on the legal basis that deep seabed mining is a lawful use of the high seas. There are four underlying legal consequences of that position. First, the United States may engage in deep seabed mining without reference to the 1982 LOS Convention. Second, the United States is obliged to acknowledge that any other state that wishes to do so may engage in deep seabed mining. Third, the United States has a responsibility in international law to act responsibly to regulate its nationals who wish to engage in deep seabed mining for the proper conservation of those resources. And, fourth, the United States has a responsibility in international law to have due regard to the rights of nationals of other states, including those that are engaged in deep seabed mining.

These responsibilities, which the United States has assumed, are the classic obligations that govern the exercise of a high seas freedom.

All United States deep seabed mining operations are governed by the 1980 Deep Seabed Hard Mineral Resources Act. The act had several unstated purposes: it was clearly a negotiating tactic, it was also an indication of support and encouragement to a new industry, and it was the governmental response to ensure the growth and development of that industry consistent with national objectives. The act contemplated a satisfactory outcome at the Conference, but its legal effect is not contingent upon it. The act now serves the broader purpose of promoting United States deep seabed mining interests outside the Convention. The act is well suited to this challenge.

Without this law the United States deep seabed mining industry would be free to operate without restraint. Thus the act, in the first instance, must be regarded as an indication of

the United States' willingness to regulate its nationals so that the mineral resources of the deep seabed can be properly conserved and managed.

Second, by structuring a system wherein the United States government may prohibit its nationals from engaging in deep seabed mining where others have already established their interest, the United States has insured that it has the legal authority to give due regard to the exercise of high seas freedoms by others.

The law provides that if certain findings are made by the Secretary of State, the Administrator of the National Oceanic and Atmospheric Administration may designate another state as a reciprocating state [17]. Although there are many details that must be examined, this process ensures that the United States is in a position to respect the exercise by another state of this high seas freedom, so long as that state reciprocates and has due regard for the rights and freedoms of the United States. The domestic legal effect of designation of a reciprocating state is that the United States government will then deny its miners the opportunity to mine in areas where the miners of the other state have already established a legal interest.

This simple legal framework avoids many theoretical legal questions, including one thorny legal problem that is often advanced as a reason why the United States must participate in the 1982 LOS Convention. That is the matter of exclusivity -- exclusive rights. There is a felt need to establish a universally recognized institution with the power to grant exclusive rights to mine sites and their minerals. That is one way to deal with the problem, and it is the concept upon which Part XI is based. It is not, however, consistent with traditional legal doctrine and it is not necessary for national use of the oceans.

Legal systems around the world continually confront and resolve the relationship between two competing interests with similar abstract legal rights. Legal systems solve such problems through consideration of the equities concerned. International law, indeed the international law of the sea, is familiar with the application of equity -- often referred to as equity within the law -- to resolve problems of competing interests. In the area of deep seabed mining, such an approach may even be said to be legally preferable to that contained in Part XI.

Recourse to equity, when separated from the realities of international life, is all too easy to mock. It -- like anything else -- has its defects and it is subject to the assertion that it does not serve the cause of predictability. But we must be cautious with such criticism for we find that recourse to equity is not uncommon as the legal basis for resolving the most difficult legal issues between states, and one would find upon close examination that predictability and stability play less a role -- sometimes -- than perceptions of fairness.

Let me illustrate the application of equity with two examples. Others could be given.

The first example is the Icelandic Fisheries case [18]. Here we had a classic law of the sea confrontation -- Britain's traditional fisheries against Iceland's coastal interest -- in a world of evolving coastal State jurisdiction. The International Court of Justice found the answer in equity. It found that an equitable solution was called for and "that in order to reach an equitable solution ... it is necessary that the preferential fishing rights of Iceland, as a State specially dependent on coastal fisheries, be reconciled with traditional fishing rights of the applicant [19].

In this connection, in the context of this case, the Court identified five broadly based factors that the parties were obliged take into account for the "equitable solution of their differences" [20]. We need not explore those factors here. In the nature of things they will vary from case to case. Some guidance to the factors that might be called for in the deep seabed mining context may be found in the regulations of NOAA implementing the United States Deep Seabed Hard Mineral Resources Act. Those regulations lay out considerations to be taken into account in the resolution of domestic disputes relating to deep seabed mining [21].

The second example is Article 59 of the 1982 LOS Convention entitled "Basis for the Resolution of Conflicts Regarding the Attribution of Rights and Jurisdiction in the Exclusive Economic Zone." This article provides that where the Convention does not clearly spell out the relationship between the coastal state and others in the exclusive economic zone, "the conflict should be resolved on the basis of equity and in the light of all the relevant circumstances."

I submit that if such a rule is an acceptable legal basis for the relationship between states in the exclusive economic zone -- absent clearly accepted rules -- such a rule is also an acceptable legal basis for the relationship between states in the area beyond national jurisdiction absent their agreement to be bound to any other set of rules.

Upon such a foundation of understanding, the United States and seven other states have signed and brought into force an agreement which provides for the harmonization of their national laws and regulations concerning deep seabed mining and provides for recognition of the established interests of the miners of each state. We do not have time to go through this agreement in any detail. But I do want to note that the United States believes the agreement is consistent with its position, recognizing that other parties may give it a slightly different interpretation. The agreement is evidence that the United States is prepared to recognize the rights of others to engage in deep seabed mining. In such cases where equities are established and on the basis of reciprocity, the United States will recognize such rights and will regulate United States citizens so as not to interfere.

There is no reason why this approach needs to be considered incompatible with rights that some states may claim under the 1982 Convention. So long as those states do not challenge the

established interests of the United States, the United States is in a position to reciprocate.

But if miners who operate under the Convention are not prepared to recognize -- or, let me put that a different way, to refrain from challenging -- the established interests of the United States, then it is they who are in fundamental violation of the principle of the freedom of the high seas in which one must have due regard for the rights and interest of others.

It is only if such a challenge is made that the ultimate legal issue will be truly joined. Is deep seabed mining a freedom of the high seas in which states may join together to regulate themselves, having due regard for the rights of others? Or is there something so legally unique about this activity that it has escaped from classical legal doctrine? Does the international law of the sea legislate for those who have not consented to be bound in this realm? May the international community do so through majority vote? The United States position does not purport to exclude the rights of others to engage in deep seabed mining. But others would seem to wish to exclude the United States from doing so.

The disappointment -- indeed bitterness -- of some states and perhaps of the leadership of the Third Conference is understandable. But international lawyers should ensure that the political disappointment does not stretch international law, its institutions, and its principles beyond tolerable bounds. The sovereign equality of states is directly and fundamentally implicated by the legal theories marshalled in opposition to the United States' deep seabed mining position. Proponents of those theories would not make such legal arguments in other contexts. Surely the individual states of the world community have no interest in seeing their independence eroded. The United States is not seeking to disrupt the approach of the 1982 Convention. Some important signatory states see no incompatibility between the approach that the United States espouses and that of the Convention. Hopefully, over time, other states will adopt a more favorable attitude and we will avoid a direct legal confrontation that will serve no state's long term interest.

NOTES

1. Convention on the High Seas, 13 U.S.T. 2312, T.I.A.S. No. 5200, 450 U.N.T.S. 82.
2. The Moratorium Resolution, 24 U.N. GAOR, Supp. (No. 30), U.N. Doc. A/7630 (1969). It is reprinted at 9 International Legal Materials 422.
3. Res. 2749 of 17 Dec. 1970. Declaration of Principles, 25 U.N. GAOR, Supp. (No. 28) U.N. Doc. A/8028 (1970).
4. Vienna Convention on the Law of Treaties, Article 53. U.N. Doc. A/CONF. 39/27 (1969).
5. Supra note 2.
6. The following States voted against the Moratorium Resolution: Australia, Austria, Belgium, Bulgaria, Byelorussia, Canada, Czechoslovakia, Denmark, France,

Ghana, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Malta, Mongolia, Netherlands, New Zealand, Norway, Poland, Portugal, South Africa, Ukraine, USSR, United Kingdom, United States.

7. Letter from John R. Stevenson to Hon. Lee Metcalf, Chairman, Special Subcommittee on the Outer Continental Shelf, in Hearings on the Outer Continental Shelf, U.S. Senate, Committee on Interior and Insular Affairs, 91st Cong. 1st and 2d Sessions, Dec. 17, 1969, Jan. 22 and March 4, 1970. Also reprinted in 9 International Legal Materials 831.
8. Address by John R. Stevenson, Legal Adviser of the Department of State, before the Philadelphia World Affairs Council and Philadelphia Bar Association, February 18, 1970. In 9 International Legal Materials, 434, 438.
9. Supra note 3. The Declaration was adopted unanimously with 14 abstentions including the Soviet Union.
10. Statement of John Norton Moore, Hearings Before the Senate Subcommittee on Minerals, Materials and Fuels, 93rd Cong., 2d Sess. 975, 994. (1974).
11. Ibid. at 989.
12. Ibid. at 994.
13. Statement of Charles N. Brower, Hearing Before the House Subcommittee on Oceanography of the House Committee on Merchant Marine and Fisheries, 93rd Cong., 1st Sess., 50 (1974).
14. Statement by Ambassador Elliot L. Richardson, Special Representative to the President for the Law of the Sea Conference to the Plenary Meeting, September 15, 1978.
15. P.L. 96-283; 94 STAT. 553, 30 U.S.C. 1401 et. seq.
16. Ibid., Sec. 2(a)(12).
17. Ibid., Sec. 118.
18. I.C.J. Reports, 1974, p. 3.
19. Ibid., p. 30.
20. Ibid., p. 34.
21. 15 C.F.R. 970.302(j)(2)(ii).

> The determination of the Administration shall be based on the application of principles of equity which take into consideration ... the following factors:
>
> A. The continuity and extent of activities relevant to each area in conflict and the application area of which it is a part;
> B. The date on which each applicant ... commenced activities at sea in the application area;
> C. The financial cost of activities relevant to each area ...;
> D. The time when the activites were carried out and the quality of the activities; and
> E. Such additional factors as the Administrator determines to be relevant ....

COMMENTARY

Otho E. Eskin
Director, Office of Advanced Technology
Bureau of Oceans and Int'l Environmental and Scientific Affairs
United States Department of State

I would like to discuss the Provisional Understanding Regarding Deep Seabed Matters which was signed in August. I will first give some of the history of the negotiations of the Agreement and then outline some of its major features. Finally I would like to consider the conditions which have led to a state where, it may be argued, there are competing regimes, and to suggest what alternatives are open to us.

HISTORY

The Deep Seabed Hard Mineral Resources Act of 1980 (P.L. 96-283) established a legal framework for United States citizens to engage in the exploration and commercial recovery of the hard mineral resources of the deep seabed. Similar legislation has been enacted by the United Kingdom, France, the Federal Republic of Germany, and Japan over the last several years, and legislation is under consideration in Italy.

Section 118 of the Deep Seabed Hard Mineral Resources Act encouraged the establishment of reciprocal arrangements by which the United States government would agree not to issue authorizations for seabed mining activities in an area for which an authorization had been issued by a "reciprocating state." The designation of a "reciprocating state" is made by the Administrator of the National Oceanic and Atmospheric Administration upon a finding by the Secretary of State that a foreign nation:

(1) regulates the conduct of its citizens in a manner compatible with the U.S. Act,
(2) recognizes authorizations issued by the United States;
(3) recognizes priorities of right for the issuance of authorizations, consistent with the U.S. Act; and
(4) provides an interim legal framework which does not interfere with other states' exercise of high seas freedoms.

Consultations on reciprocal arrangements among those countries with interests in commercial deep seabed mining began shortly after the passage of the Deep Seabed Hard Mineral Resources Act. By February of 1982 the text of a comprehensive Agreement had been negotiated and was under consideration by the four states which had by then passed legislation (the United States, the United Kingdom, the Federal Republic of Germany, and France). However, due to the impending final session of the Law of the Sea Conference, it was decided not to sign the Agreement

climate at the Conference for obtaining desired changes in the seabed mining provisions of the draft LOS Convention.

The efforts to improve Part XI of the Convention, however, proved fruitless and, on 9 July 1982, President Reagan announced his decision not to sign the LOS Convention.

Discussions among the like-minded states began again after the conclusion of the Conference in the summer of 1982. Because several of the countries involved in these discussions were by that time actively considering signature of the LOS Convention, the form and substance of the Reciprocal Agreement had to be reconsidered.

In the meantime, the international seabed mining consortia had undertaken to resolve conflicts over mine sites through private negotiation. Five of the existing seabed mining consortia (four of which filed applications in the United States, one in the United Kingdom, one in France, and one in the Federal Republic of Germany) signed a settlement agreement resolving mine site overlaps on 18 May 1983. The Japanese consortium was not a party to that settlement.

On 2 September 1982, the United States, the Federal Republic of Germany, France, and the United Kingdom signed an Agreement Concerning Interim Arrangements Relating to Polymetallic Nodules of the Deep Seabed. This Agreement:

(1) provided uniform procedures for processing applications;
(2) encouraged the seabed mining consortia to settle mine site overlaps privately;
(3) provided a mechanism for conflict resolution if the private consortia failed to reach a private settlement and the governments subsequently agreed to take action; and
(4) provided for continuing cooperation in the regulation of seabed mining.

On 15 December 1983 a separate settlement on resolving overlapping claims was reached between the Japanese seabed mining consortium and the five Western mining consortia. These private settlement agreements taken together eliminated all mine site overlaps among all existing applications filed with the like-minded states.

While the September 2 Provisional Agreement was an important step, it did not achieve the primary objectives of Section 118 of the Deep Seabed Hard Minerals Resources Act which were to: (1) provide for reciprocal recognition of mine sites; and (2) provide a long-term mechanism for the development of compatible national regulatory programs.

Negotiations to fulfill these objectives continued. At this stage, additional states interested in seabed mining (the Netherlands, Japan, Belgium, and Italy) participated actively. Negotiations on the text of an agreement, called the Provisional Understanding Regarding Deep Seabed Matters, were concluded early in 1984, and the Agreement was signed in Geneva on 2 August 1984 by the United States, Japan, the Federal Republic of Germany, France, Belgium, Italy, the Netherlands, and the United Kingdom. The Agreement entered into force on 2 September 1984.

The Provisional Understanding Regarding Deep Seabed Matters consists of the Provisional Understanding itself; two appendices (definitions and one dealing with notification); a Memorandum on the implementation of the Provisional Understanding; an exchange of notes between the U.S. and the Federal Republic of Germany, France, Japan, and the United Kingdom which make clear that the Agreement applies to the exploitation as well as the exploration phase; and declarations by the Federal Republic of Germany (on applicability of the Agreement to Berlin) and by Belgium, Italy, and the Netherlands.

MAIN FEATURES OF THE PROVISIONAL UNDERSTANDING REGARDING DEEP SEABED MATTERS

A principal object of the Provisional Understanding (hereafter referred to as the Agreement) is to avoid conflict over mine sites. To this purpose, the Agreement establishes two categories of mine site applications (Paragraph 1): (1) those which were in conflict and subject to private settlement agreements among the applicants involved; and (2) all other applications, whether filed before or after signature of the Agreement. As to the first category, a party to the seabed mining Agreement may not issue an authorization to an applicant, engage in seabed mining activities itself, or seek registration by the LOS Preparatory Commission for an area which the private seabed mining agreements (referred to above) awarded to another applicant.

The second category of mine site applications has two subgroups: (1) applications which have never been in conflict and were filed prior to signature of the Agreement, and (2) any applications received after signature of the Agreement. With respect to this second category of application, if conflicting applications are filed with different parties to the Agreement after 3 August 1984, priority will be determined on the basis of the chronological order in which applications are filed. (To date no such application has been filed). The effect of these provisions is that, when there is an existing authorization, or there is an application under active consideration, for a particular area, the Agreement prohibits a party from issuing a conflicting authorization to a subsequent applicant for the same area, or from engaging in activities directly in the same area.

The Agreement leaves open the possibility that some parties may choose to be registered as pioneer investors by the LOS Preparatory Commission. The Agreement, however, prohibits a party from seeking such registration under the same circumstances under which issuance of an authorization is prohibited.

The Agreement requires (Paragraph 8) that the parties seek consistency in their application requirements and operating standards to provide a long-range mechanism for ensuring regulatory compatibility. This is accomplished through requiring consultations on the implementation of the Agreement and, specifically, with respect to relevant legal provisions and their modification. Furthermore, the Memorandum on

implementation provides minimum standards which each Party intends to meet in the development of its national regulatory program in areas such as protection of the environment, safety of life and property at sea, conservation of resources, and enforcement. In addition, the Agreement provides for cooperation in the development of measures to implement the Provisional Understanding and the standards outlined in the Memorandum on implementation "so that, in general function and effect, their (each Party's) measures are compatible with, comparable to and as effective as those established by other Parties."

Some parties to the Agreement (United States, United Kingdom, Federal Republic of Germany, France, and Japan) have a national legal framework for regulating seabed mining and have already accepted seabed exploration applications. Other parties (Belgium, Italy and the Netherlands) have no program and have not received applications for mining authorization. In recognition of this fact, the Agreement provides for two levels of participation (Paragraph 12 (2)).

States which do not have a regulatory program, and thus will not issue authorizations, are permitted to limit their obligations under the Agreement to those provisions which do not relate to the issuance of authorizations. Upon the adoption of a national regulatory program, these states could become full parties, with the concurrence of all other parties. These "limited parties" will not be designated as "reciprocating states" until such time as they adopt necessary internal legal arrangements and wish to assume all obligations. At present three states are "limited parties": Belgium, Italy, and the Netherlands. Their limited undertakings under the Agreement are set out in declarations made at the time of signature.

The states with regulatory programs for seabed mining (United States, United Kingdom, Federal Republic of Germany, France, and Japan) are full parties and are bound by all provisions of the Agreement.

In the event that a consortium is restructured or dissolves, the Agreement (Paragraph 7) provides that the rights and interests of an applicant, or a holder of an authorization, can be transferred, in whole or in part, pursuant to a private agreement. The transferee will be deemed to stand in the same position as the transferor. His rights may not exceed those of the tranferor and the transfer is subject to the national law of the relevant parties as well as the terms of the private agreement.

Section 118 (d) of the Deep Seabed Hard Mineral Resources Act provides that, if a designated reciprocating state's conduct fails to continue to support the findings made by the Secretary of State, its designation as a "reciprocating state" must be revoked. In order to permit termination of the reciprocal relationship with one party to the Agreement (Paragraph 14) without jeopardizing the whole Agreement, a selective termination clause was incorporated which would allow a party to terminate its relationship under the Agreement with one party while continuing unchanged its relationship with other parties.

The Agreement provides for consultations among parties (Paragraph 5):

(a) prior to the issuance of any authorization or before a party engages in seabed operations or seeks registrations:
(b) with regard to arrangements between one or more parties and another state regarding avoidance of overlapping of deep seabed operations;
(c) with regard to relevant legal provisions; and
(d) generally with a view to coordinating and reviewing the implementations of the Agreement.

The Agreement prohibits exploitation of seabed mining prior to 1 January 1988 (Paragraph 4).

The Agreement (Paragraph 6) requires that, to the extent permissible under national law, parties maintain the confidentiality of coordinates of application areas or other proprietary or confidential commercial information received in confidence from any other party in pursuance of cooperation in regard to deep seabed operations.

Finally, the Agreement stipulates (Paragraph 15) that it is without prejudice to, nor does it affect, the positions of the parties, or any obligations assumed by any of the parties, in respect of the LOS Convention.

THE CURRENT SITUATION

We find ourselves today in a situation where, some have argued, there are competing legal regimes for seabed mining. I suggest that this is an oversimplification.

It is now abundantly clear that the system governing seabed mining set out in Part XI of the LOS Convention is significantly defective. Most of the industrialized countries with serious interests in seabed mining have made it plain that the Convention's mining regime is faulty and unacceptable in its present form. There are differences of opinion on whether the defects can be corrected and what forum would be appropriate to do so. What seems beyond dispute is that, unless significantly improved. there will be no commercial seabed mining under the LOS regime.

Not only is the Convention defective as it relates to seabed mining, it is also incomplete. It will be necessary for the PrepCom to flesh out the regulatory system in much greater detail before it is possible to make a final judgment on the seabed mining regime as a whole. This may take years; indeed it may never be completed. Even if completed, the results may be far from satisfactory.

It is inconceivable to me that the United States, even if it had signed the LOS Convention, would have submitted the Convention to the Senate for advice and consent prior to completion of the work of the Preparatory Commission. I would expect that similar considerations would apply to other industrialized nations who may eventually wish to develop seabed mineral resources.

I cannot predict whether the sixty ratifications necessary for the LOS Convention to enter into force will be obtained. I

do suggest that there is no assurance that the major industrial states will ratify.

In the absence of a universally accepted Convention with support from seabed mining states, an effective seabed mining regime under the Convention is inconceivable.

We are not here faced simply with a question of security of tenure of companies over mine sites; what is in question is whether a viable regime can be devised which will protect the legitimate interests of all states while, at the same time, creating conditions which will encourage the research into, and development of, oceans mineral resources -- not just manganese nodules, but of other, yet-to-be-discovered resources as well.

The Provisional Understanding essentially reflects an approach by which, in the absence of a universally accepted regime under a Convention, seabed exploration and exploitation can be carried out under national control but in a manner which avoids conflicts and protects the interests of all nations. The legal basis for this approach -- which has been set out in detail elsewhere -- is the rightful and appropriate exercise of high seas freedoms.

We have heard appeals for common sense to avoid conflicts. We welcome those appeals. It has been our object to avoid conflict and that remains our aim. We are prepared to discuss these questions with any nation and we welcome new ideas. We believe the Provisional Understanding is a constructive step toward creating conditions under which the community of nations may explore and exploit the mineral wealth of the sea. We encourage all nations, regardless of their views on the LOS Convention, to work toward practical solutions to prevent conflicts over seabed mining.

Niels-J. Seeberg-Elverfeldt
Max Planck Institute for Foreign Public and
Private International Law

INTRODUCTION

The current situation in deep sea mining is characterized by the fact that the states interested in deep sea mining are divided into two camps. On the one side we find the vast majority of states which have signed the UN Convention on the Law of the Sea. They support the conventional regime on deep sea mining to be regulated for the foreseeable future pursuant to the framework of the Preparatory Commission and claim that pioneer activities can be undertaken only on the basis of Resolution II by the pioneer investors specified therein (Resolution II paragraph 1 (a)). On the other side, we find five countries with the requisite deep sea mining capacity which have not signed the Convention because of their objections to the conventional regime. Until agreement on the deep sea mining regime has been reached, they prefer to conduct mining activities on the basis of national legislations and reciprocal regimes which they regard as the licit exercise of a high seas freedom.

Doubtlessly, the viability of deep sea mining is best assured by a universally accepted regime which is the prerequisite of absolute security of right and tenure. Naturally, such a degree of security cannot easily be achieved if there are two competing juridical regimes of deep sea mining. The essential condition for the viability of any dual regime is definitively that each not interfere with the other. Whether such non-interference can legally be assured is questionable and will be the subject of the first two parts of my paper. I conclude that it can be. In the third part of my remarks, I will address some of the most critical points of the conventional regime and various economic issues which the conventional regime must take into account.

On 3 August 1984, eight states had signed the "Provisional Understanding Regarding Deep Seabed Matters" in order to avoid conflicting mining claims. The signing of this Understanding has been sharply criticized and denounced as illegal, especially by the Group of 77 and that of the Eastern Socialist States. Moreover, it has been particularly deplored that signatories of the Convention are among those states which have signed the Understanding.

The provisional Understanding contains no substantive provisions. It regulates only a procedure which aims at avoiding conflicts between overlapping claims. As such it is in conformity with paragraph 5(a) of Resolution II which obliges potential applicants for pioneer areas to resolve conflicts arising out of overlapping claims and furthers a stated purpose

of this resolution. As long as there are two approaches to mining, the conclusion of an agreement like the Provisional Understanding is the only avenue for potential deep sea miners, signatories of the Convention and non-signatories alike, to assure that the areas claimed by them do not overlap. Regrettably, such action is, therefore, necessary but it is not illegal.

In this context the question arises whether non-signatories of the Convention which consider signing it can continue after signature to conduct pioneer activities on the basis of national laws and reciprocal regimes. If these do not conform to the provisions of Resolution II, the answer depends on the legal character of this resolution. Is it only an option or is it legally binding on any signatory of the Convention?

Generally, resolutions are not binding. Yet with Resolution II the case may be different. It contains specific rights and obligations for the pioneer investors referred to in its paragraph 1(a). Such investors may have applications for pioneer areas registered by the Preparatory Commission under the conditions specified in paragraph 2 after conflicts arising from overlapping claims have been resolved; they will then receive priority of right concerning one particular pioneer area. Additionally, they may receive an authorization for exploration by submitting an application to the Authority upon entry into force of the Convention (Resolution II paragraph 8(a)). On the other hand, they are obliged to respect the priority of right of other registered pioneer investors, to pay fees, and to incur periodic expenditures as provided for in paragraph 7. Also, states sponsoring activities under the resolution shall ensure that prior to the entry into force of the Convention pioneer activities are conducted in a manner compatible with it (paragraph 5(b)).

The language of Resolution II is that of a legally binding instrument which regulates not only procedure but also substantive law. That it was not intended to be optional follows also from Article 308 paragraph 5 of the Convention, for it provides that the Authority and its organs shall act in accordance with it and the decisions taken by the Preparatory Commission pursuant to it. From the contents of the resolution and Article 305 paragraph 5 it follows further that it is intended as a provisional application of the conventional deep sea mining regime in accordance with Article 25 paragraph 1(b) of the Vienna Convention on the Law of Treaties. Although the document is called a resolution it must, therefore, exceptionally be construed as legally binding.

When does or did Resolution II become binding? It becomes binding upon signature of the Convention. This follows from the fact that states can claim rights from and assume obligations under it upon signature of the Convention. It follows also from the fact that the Preparatory Commission could be established only after fifty states had signed the Convention, for Resolution II presupposes the establishment of the Preparatory Commission. Hence, any state intending to sign the Convention should carefully consider the legal character of

Resolution II. It will be rather difficult for a signatory legally to justify it if it continues to conduct deep sea mining activities not covered by this resolution.

The circumstances for the viability of a dual regime to seabed mining may become different when deep seabed operations outside of the conventional regime enter the stage of exploitation. Article 137 paragraph 3 of the Convention provides that no state or natural or juridical person shall claim, acquire, or exercise rights with respect to the minerals recovered from the Area, except in accordance with Part XI. Otherwise, no such claim, acquisition, or exercise of rights shall be recognized.

I do not want to discuss at length here the legality of unilateral legislation and reciprocal regimes outside of the Convention and the extent to which the principle of the common heritage of mankind has found its way into customary international law, as there is abundant literature on it. A few remarks shall therefore suffice.

First, Article 137 paragraph 3 cannot be considered the sole authoritative basis merely because it is contained in the Convention. It cannot become customary international law only because it is written in the Convention. Moreover, it cannot develop into a rule of customary international law as long as it is persistently objected to by those non-acquiescing states whose interests are specially affected. The United States and others have never ceased to object to the conventional regime and have always claimed that customary international law permits deep seabed mining in accordance with the national legislations as a high seas freedom.

Second many states claim that Article 137 paragraph 3 embodies the principle of the common heritage of mankind as a rule of customary international law. There seems to be general agreement that this principle has found its way into customary international law as a basic principle. It is also referred to in the national legislations of those states which have not signed the Convention. Yet disagreement exists as to its precise content. In my opinion, it entails the obligation for deep sea miners to share in some form the benefits derived from the recovery of minerals from the deep seabed with developing countries. Whereas there appears to be agreement with respect to this substantive aspect of the basic principle, disagreement exists regarding the procedure. Hence, no regime may claim exclusive legitimacy. The national laws pay due regard to the principle in providing for taxes to be paid into a development- and aid-oriented fund or into a fund which is to be turned over to the International Authority upon acceptance of a regime under its auspices.

On the basis of the foregoing I conclude that exploitation outside of the Convention is lawful. The question remains whether signatories of the Convention with reference to Article 18 of the Vienna Convention on the Law of Treaties obliging them to refrain from acts which would defeat the object and purpose of the Convention or even states' parties to it could still be parties to an agreement like the Provisional Understanding. It

could be claimed that this would be tantamount to a recognition of exploitation outside the scope of the Convention which it is certainly the main objective of Article 137 paragraph 3 to prevent. Yet if the Convention cannot achieve this objective, Article 137 paragraph 3 cannot be read as precluding any state party from taking all necessary measures to ensure that its activities under the umbrella of the Convention are not adversely affected by others. If the Convention has not been able to attract all potential players in deep sea mining, it must be legitimate for any state party to seek non-interference with its rights claimed and its activities authorized under the Convention but which the Convention is unable to secure completely. A state party can hardly be reproached if it does not apply for an area which is claimed by another outside the Convention's regime. At present it seems to be the only peaceful avenue of securing non-interference with deep sea mining activities as between all potential participants in such ventures.

Let me now turn to some remarks regarding critical points of the conventional regime. They are, above all, the production limitation, the technology transfer, the prohibitive costs of mining under the Convention, and the Review Conference.

At present, the regime is based on the concept of central economic planning. As such the regime is prone to stifle private industrial initiative. One should not forget that the largest portion of the world's deep sea mining industry is privately owned. The recognition of this stifling effect has led, for example, some socialist countries to give, within their domestic industrial regulatory systems, some of their cooperatives and corporations more independence and discretion. The heavy decision-making apparatus of the Authority will hardly be in a position to accommodate the needs of such a complicated mechanism as the deep sea mining industry. Why reiterate bad experiences made elsewhere such as the bureaucratic and protectionist system of the EEC's common agricultural policy? The bad results in the latter will be compounded by a similar regime on the international level.

The production limitation serves to a great extent the interests of developed countries and cannot be justified with a reference to the principle of the common heritage of mankind. The interests of the developing countries which are land-based producers would much better be protected by compensation funds derived from taxes levied from the commercial recovery of the relevant minerals, as provided for by some of the national laws of non-signatories of the Convention.

The provisions of the mandatory transfer of technology should be abolished. The market regulates itself. Experience shows that technology is generally freely available unless strategic or national security reasons prohibit its transfer. If an entity refused to sell it, it would soon lose its competitive position. The principle of the common heritage of mankind is already well observed in that the Convention places deep sea mining under its exclusive auspices. Primary emphasis should be placed on encouraging joint ventures with developing countries.

The taxes levied under the Convention should be softened. An application fee of U.S. $250,000 for pioneer investors and that of U.S. $500,000 to the Authority cannot be justified. The same holds true for the annual fee of U.S. $1 million during the exploration phase.

A change of the voting procedure for adoption of amendments of Part XI at the close of the Review Conference is mandatory. It is politically unacceptable that a three-fourths majority may adopt unforeseeable changes binding upon the other fourth. Furthermore, it may pose great constitutional problems for some countries with parliamentary democracies to ratify an agreement with such a provision. Therefore, the alternative is to provide for the adoption of amendments on the basis of consent only.

Moreover, the current development of metal markets and the recent discovery of manganese crusts as well as of polymetallic sulphides which occur generally in the EEZs should be taken into account in the recommended reconsideration of Part XI. These factors will additionally discourage deep sea mining and perhaps even render it superfluous. The demand for the pertinent metals and their prices have decreased considerably primarily due to the steadily growing substitution thereof. At the present rate of consumption the estimated land-based reserves will meet the demand for these metals for many decades. Thus, it will be very difficult for deep sea ventures to compete with land-based production, especially under the currently discouraging conventional regime. The discovery of the above mentioned resources in the EEZs and the possibility of their recovery within national jurisdiction may provide for a further obstacle to recovery under the Convention in the future.

In the light of the objectionable provisions of the conventional regime, the unattractiveness of which is compounded by the developments of the market and by the discovery of new resources, states can hardly be blamed for staying outside the Convention. There is no guarantee that the Preparatory Commission will achieve what UNCLOS III was unable to. The signing of an international agreement and the obligations arising therefrom can be compared with an engagement. Does one become engaged to someone whom one does not intend to marry?

CONCLUSION

I conclude that a dual regime of deep sea mining is viable as long as the legally possible non-interference with the respective regimes is assured and maintained. The conclusion of agreements such as the Provisional Understanding is lawful for signatories and ratifying states of the Convention alike.

To overregulate the deep sea mining industry in its nascent state is premature. Every attempt should be made to bridge the gap between the two regimes. It is not too late. The industry does not forecast commercial recovery under favorable conditions before 1995. Yet, now it needs protection for its pioneer investments without untenable restrictions and conditions in order to retain a secured option for the future. The Preparatory Commission should consider suspending Part XI of the

Convention for the time being and concentrate on the negotiation of a realistic "mini-regime" which takes into account the objections to the conventional regime of the non-signatories. Of course, the Preparatory Commission is not empowered to do so. Yet, realistically speaking, its members are perfectly able to effectuate such a change. To this end the non-signatories could actively participate as observers. Should the Commission find workable solutions it might decide to reopen the Convention for signature and lay thus the path for a universally accepted regime of deep sea mining supported by all states.

COMMENTARY

Tadao Kuribayashi
Faculty of Law
Keio University, Tokyo

The present conflicting situation in respect of deep seabed mining is well known and its impact upon the future of the new ocean regime is also well recognized.

To begin with, let me explain briefly Japan's present situation on this issue. It is needless to say that Japan would derive an enormous benefit from deep seabed mining because that activity is regarded as indispensable to the ecnomic growth of Japan, whose national economy depends upon natural resources from overseas. According to Resolution II Governing Preparatory Investment in Pioneer Activities Relating to Polymetallic Nodules, which was adopted at UNCLOS III on 30 April 1982, Japan's national project for deep seabed mining was described as one of the pioneer investors within the meaning of Resolution II. The Japanese government showed at first a somewhat negative attitude towards the enactment of the national law concerning the deep seabed on the grounds that Japan might incur the repulsion of the developing nations and therefore saw little contribution to its national interest. But, in view of the adoption of the said Resolution, the Law on Interim Measures for Deep Seabed Mining was passed in the Japanese Diet. There was virtually no debate on the bill and it was enacted on 20 July 1982, with the relevant Cabinet and Ministry orders. The element of this provisional law may proceed in two directions: that is to say, on the one hand it may be revised along the same lines as the new Convention when the latter becomes effective for Japan, and on the other hand it may also be applicable to the situation if Japan does not ratify or accede to the new Convention. The correct observation of the national standpoint on deep seabed matters, however, seems to be that Japan is now carefully watching the trend of international circumstances, particularly those of the developed states. While this kind of delicate attitude may be justified as unavoidable against the background of the severe reality of international society, there is always a possibility of "falling between two stools."

In a traditional pacta sunt servanda theory, this kind of position would be viable insofar as the Convention does not become effective for the state concerned, although the signatory states, including Japan, once they signed the Convention, are subject to the "obligation not to defeat the object and purpose of a treaty prior to entry into force" in accordance with Article 18 of the Vienna Convention on the Law of Treaties. Indeed, Article 311 of the new Convention provides that it shall prevail, as between states parties, over the Geneva Conventions on the Law of the Sea. During the course of debate on this article, there was a view that the new Convention should supersede all of the previous Law of the Sea Conventions, but this view was ultimately not accepted. Therefore, the states parties of the 1958 Geneva Conventions which do not become

parties to the new Convention may still exercise their rights and assume their obligations under the Geneva Conventions.

As was stated in an article written by an Asian diplomat (Journal of International and Comparitive Law, Volume 3, No.1, 1981, pp.45-49), the arguments have been put forward that the deep seabed activities to be conducted outside the framework of the new Convention would have considerably negative effects on the efforts of many developing countries who are also attempting to produce the same minerals from their land-based resources; that no private company is likely to invest in a confusing and conflicting regime of unilateral legislation and mini-treaties since the security of its investment would not be assured and the risk would be too high; that the developing countries clearly indicated that unilateral legislation and limited agreements are illegal as violations of the principle of the common heritage of mankind; that it is inconceivable that the exploitation of seabed minerals under unilateral legislation could be considered a secure basis for the supply of minerals to the industrial countries, especially since it has been challenged as illegal by the world community; that in view of the global roles of several developed states it is difficult to comprehend why such isolation is in their interests. Perhaps various contentions against these arguments may be put forward by those who stand outside the framework of the new Convention.

In early August this year the Provisional Understanding Regarding Deep Seabed Matters was concluded among eight states' governments, including Japan. This provisional understanding was concluded, so far as Japan is concerned, for the implementation of the requirements provided for mainly in paragraph 5 of Resolution II to avoid the overlapping of the respective mining sites. The legal basis for its compatability with Resolution II has been excellently analyzed in Professor Jaenicke's report. However, the question of whether states should go along with the Convention or without the Convention cannot be determined by considering only the deep seabed problems for a country like Japan. We heard a lot of so-called "package deal" arguments yesterday, but I still feel some doubts about the contention that rules contained in the Convention can be divided into two categories, viz., seabed matters and non-seabed matters, and that those relating to the latter would be an expression of international customary law. In my view, the "package deal" existed not only in the exclusive economic zones and the freedom of navigation but also in various items and issues in many parts and sections of the Convention. Every multilateral treaty contains more or less certain elements of "package," and in the case of the new Convention on the Law of the Sea this was done in a very large and unprecedented scale. We should recall that the adoption of a single comprehensive treaty on ocean problems was required by the UN Assembly resolution. Therefore, it would be difficult to conclude reliably that rules relating to non-seabed matters are customary international rules applicable also to non-parties of the Convention. That is left for states' practice in the future. Thus there is a possibility that a state conducting deep seabed

mining activities outside of the framework of the Convention may not receive the benefits of the rules relating to non-seabed matters. This fact must be taken into full account by states like Japan, who has regarded the stability of the ocean order as the most important interest when she considers whether to go along with the Convention or not.

Behind the present conflicting situation there lie the basic facts that, while the mutual dependence of diversified interests has become deepened among states, any specific perspective toward the international economic order is not held common to a meaningful degree and that the difference of approaches among states to the methodology of sharing interests in the international community is still unresolved.

In considering this dilemma, I am rather impressed by the following passage with which I would like to conclude my comments, although this was mainly focused upon a similar issue on outer space:

> Law of the Sea experience illustrates the difficulties encountered when legal norms drag behind technological advances. The right course would be to set up the basic framework in advance of the technology. If this were done, the law would determine direction of technology rather than the more dangerous alternative of allowing the technology to determine the law. Technological might and clamorous marketplace interest should not be allowed to dictate legal norms or there will be no justice.

Thank you.

COMMENTARY

Vladimir Pisarev
Academy of Sciences
and
USSR Institute for U.S. and Canadian Studies

Thank you, Mr. Chairman. I would like to stress that the view I am going to express now reflects my own assessments of the United States approach to its ocean problems.

The law of the sea is neither the first nor the last item on the agenda of the world community. So the experience accumulated in resolving the issue is very valuable and instructive. I have in mind in particular the experience which can be gained from the comparison of United States declarations made during preparatory and initial stages of global negotiations in the middle of the 1960s about the necessity of reaching fair and equitable decisions on world ocean developments and of avoiding a race to grab and hold the lands under the high seas. I am quoting President Lyndon Johnson's statement on 13 July 1966. I wish to compare this with the United States attitude to the new United Nations Law of the Sea Convention which contains concrete provisions indispensable for the realization of these objectives.

Let me make several remarks, the first one of which is provoked by yesterday's speech by James Malone. I would like to express my regret that such a report setting forth real intentions of the United States and the Western industrial countries was not delivered in the 1966 Annual Conference of that Institute where Professor Quincy Wright from the University of Virginia was the first to propose to treat the sea and its resources as the heritage of mankind.

My second remark is that the new Convention is an effective instrument created by the world community for preventing the threat of unrestrained exploitation and conflicting jurisdictional claims. It is not my terminology again. The threat of unrestrained exploitation was spoken about by the United States' Republican President in 1970. Today the leader of the same state and of the same party is calling for development of the seabed regime free of political and economic restraints specified in the new Convention. Today James Malone seriously describes the work of the United Nations Law of the Sea Conference as a decade of counterproductive and fruitless negotiations. You can hear such assertions together with those that the United States was and remains a leader in the development of the law of the sea. Amazing leadership. One may, however, think that the concept of leadership has undergone some substantial changes over time. In any case it is obvious that the United States is now really far from the world community, leaving behind the principle of the common heritage of mankind and treating the oceans as an American heritage. Again, I am quoting Dr. John Byrne, who is now the Administrator of NOAA, and it seems to me to reflect the official position of the United States government.

My last remark. I would like to focus your attention on such elements of the United States approach to the development of international relations in the ocean area as the American refusal to sign the new Convention, its strategy of a separate deal with Western industrial nations, American attempts to pick out arbitrarily some of the provisions of the new Convention while discarding others, and ignoring the fact -- as it was stressed by the Soviet government -- that the Convention is integral and indivisible. Such an approach of the United States means nothing but a course to undermine the very idea of treaty settlement of global issues, to discredit the role of the United Nations in such a settlement, and to seed chaos in the question of using the world oceans. The course of unilateral actions and confrontations with the international community taken by the United States and its allies who concluded the provisional agreement on deep seabed regions demonstrates -- as was noted by the Soviet press agency Tass statement of September 15 -- their attempt to legalize the striving of some monopolies to the seizure and allotment of the most prospective part of the international seabed in violation of the United Nations Convention of 1982.

LUNCHEON SPEECH

INTRODUCTORY REMARKS

Stefan A. Riesenfeld
Boalt Hall School of Law
University of California

I think that the Under Secretary does not need any particular introduction to you; you all know who he is and that it's a great privilege for us to have him here. Before he assumed his position as Under Secretary General, he played an important role in the UN law of the sea negotiations: as Fiji's representative he was rapporteur to the Second Committee and chaired negotiating groups dealing with landlocked and geographically disadvantaged states and with production policies for deep seabed mining. He also served as the special representative of the UN Secretary General for the Law of the Sea.

He will speak on "Prospects for the Future: The UN and Peaceful Uses of the Oceans." I hope we all look to a peaceful future. Most of my life is past but I still look a little bit to the future. I also look to the future for my children and for my grandchildren, and, Mr. Under Secretary, if you're kind enough to address the group we will appreciate it very much.

PROSPECTS FOR THE FUTURE: THE UN AND PEACEFUL USES OF THE OCEANS

Satya Nandan
Under Secretary General
United Nations

Before one can look at the future of the oceans, one has to look at the past and the present. Before the United Nations Conference on the Law of the Sea was convened, one had the Geneva Conventions which substantially reflected customary international law. Quite clearly these conventions were lacking in some of the most important and fundamental aspects of law of the sea. One example that comes to mind is the breadth of the territorial sea. There was no agreement on this. On the other hand, irrespective of the breadth of the territorial sea, it was recognized that customary international law provided for innocent passage through territorial seas and straits used for international navigation, though the concept of innocent passage itself was not fully elaborated. This lack of agreement on the breadth of the territorial sea created a major area of uncertainty in international law. Already prior to the 1958 and 1960 Conventions, some states had declared up to 200 nautical miles of territorial sea. We all know of the Santiago Declaration in this regard which took place in 1952. In the early 1960s and right into the 1970s we had a number of states from all regions declaring territorial seas of varying breadths from 3 to 200 nautical miles. There were states which had also begun to claim extended jurisdiction for pollution regulation in coastal areas. There were other states which declared wide jurisdictions up to 200 miles over fisheries resources. In the meantime, the limits of jurisdictions over the continental shelf as prescribed in the 1958 Convention became imprecise. Technology development dictated the extent of continental shelf jurisdictions of coastal states. Uncertainty also existed as to the regime for scientific research in the areas which were claimed within the wide territorial seas. Likewise there were potentials for conflict in waters enclosed within archipelagic baselines which were designated as internal waters by certain states which were inconsistent with some of the most important international sea rules.

Important issues relating not only to ordinary navigation but more importantly to strategic and security uses of the oceans became part of this uncertainty. There were, for instance, states which claimed notification or authorization for passage of military vessels through international straits or territorial seas. Added to this, interest grew over a new area of the oceans which hitherto had not formed part of the traditional uses. This was the area of the seabed and its resources beyond national jurisdiction which, as you know, by 1970 was the subject matter of the United Nations Declaration of Principles. These principles stated that the resources of the seabed and the ocean floor and the sub-soil thereof beyond the

limits of national jurisdiction were the common heritage of mankind and that no state or person natural or juridical shall claim, exercise, or acquire rights with respect to the areas or its resources imcompatible with international regime to be established and principles of the declaration. They further stated that activities regarding the resources of the area shall be governed by the international regime to be established. This was the status of the law of the sea when the Conference began. The Convention that we have now was negotiated for well over a decade. If you include preparatory stages. The result is indeed one of the most significant achievements of the international community. Never has there been a convention which dealt with such complex and wide-ranging subject matter. It was an attempt to reveal the existing law, to clarify it, to modify it and where necessary to introduce innovations which would meet the aspirations of the present day world community. The result is before us; we have a Convention which has rationalized the uses of the oceans. It has provided certainty in the large area of law which had become very confused and uncertain. It has introduced new concepts such as transit passage rights. archipelagic waters regime, the exclusive economic zone, a more scientific definition of the limits of the continental shelf, and a new regime governing the resources of the deep seabed beyond national jurisdiction. Each of these is a reflection of the rationalization of the different uses of the oceans. They are of necessity a compromise between the differing interests that existed at the Conference. We know that the Convention received an unprecedented and overwhelming support with some 119 signatures appended on the first day that it opened for signatures. This has now risen to 134 signatures and it is a fair guess that this figure will reach around 140 by 9 December 1984, the closing date for signatures. We also know that four countries had voted against the Convention. Three of these countries. Israel, Venezuela and Turkey, had difficulties with specific and narrow areas of the Convention peculiar to their national concerns. The United States, on the other hand, had a wider area of disagreement with the Convention. This related to Part XI, the deep seabed mining provisions of the Convention. There were a few other countries from Western Europe which shared at least some of these disagreements and therefore abstained in the voting. Following the adoption of the Convention and signature, the Preparatory Commission for the International Sea-bed Authority and for the establishment of the International Tribunal for Law of the Sea began its work as from March, 1983. All those who are entitled to participate in the Preparatory Commission participate in its work, with the exception of the United States.

There are at this time thirteen instruments of ratification deposited with the Secretary General, who is the depository for the Convention. This number should reach between seventeen to twenty by the end of the year since we know of a number of states which have or are completing their internal procedures and are likely to deposit ratifications by the end of the year. That is the status of the Convention as it stands now.

What is the effect of the Convention today on international law? The Convention is already having a stabilizing effect on the law of the sea. Its major achievement has been to rationalize the different uses of the oceans and thereby to reconcile the competing interests of states. Creeping jurisdictions or increasing nationalization of the oceans and their resources was the hallmark of law of the sea prior to this Convention. This process began immediately after the Second World War, led by the Truman Declaration of 1945 and the Santiago Declaration of 1952. If one examines just one area of law, that relating to the breadth of the territorial sea, one can see how chaotic the situation has been. Out of 137 coastal states on whom we have information, the table for breadth of territorial sea reads as follows: eighteen states have claimed 3 nautical miles as their breadth of territorial sea, two have claimed 4 nautical miles, five have claimed 6 nautical miles, one has claimed 10 nautical miles, eighty-three have 12 twelve nautical miles, one has claimed 15 nautical miles, one has claimed 20 nautical miles, two have claimed 30 nautical miles, one other has claimed 35 nautical miles, three have claimed 50 nautical miles. one has claimed 70 nautical miles, one has claimed 100 nautical miles. another one has claimed 150 nautical miles and thirteen have claimed 200 nautical miles. Similar examples can be drawn in respect of continental shelf jurisdiction. contiguous zone, and pollution regulation areas.

The existence of such incoherent regimes creates uncertainty and instability in the peaceful uses of the oceans. It has serious implications for international navigation as a whole and indeed for the strategic and security interests of states. I said that the Convention is having a stabilizing effect. Nowhere is this more apparent than in the areas of national jurisdictions. The term "stabilizing" might imply a stand-still situation. I should therefore add that in fact the Convention is having a roll-back effect in many cases as states begin to reconcile their national legislations with the Convention they have signed or ratified.

I might draw one dramatic example to illustrate this. There are states which have claimed internal waters regimes in the 1950s in respect of waters enclosed within their archipelagic baselines. This had meant that passage of foreign vessels through those waters under the internal waters regime was at the sufferance of the archipelagic states. At least this is what they had asserted. The Convention now provides for a right of innocent passage through archipelagic waters and an exercise of archipelagic sea lanes passage through these waters, similar to the regimes of transit passage, of freedom of navigation in the parts of the Convention dealing with international straits. Two of the states which have claimed internal waters regimes have signed the Convention. One, the Philippines. has in fact ratified the Convention and therefore is bound by its provisions, and the other, Indonesia, is currently undertaking legislative proceedings to ratify. On the breadth of the territorial sea, it is clear that states have

accepted the twelve-mile limit together with the notion of the exclusive economic zone of up to 200 nautical miles.

On the question of regime of passage in territorial seas, the regime of innocent passage remains the norm. What is not clear. however, is whether the regime of transit passage through straits used for international navigation is a general norm applicable to parties and non-parties. Those who assert that transit passage is part of customary international law must contend with the fact that the 1958 Geneva Convention codified customary international law for regime of passage through straits used for international navigation and it provided for innocent passage without reference to any breadth of territorial sea. The new regime for deep seabed mining has some difficulties for a few states at least. Some of these are important states. The regime, however, is part of the Convention which from all estimations will eventually come into force.

For a vast majority of the states from all regions and economic groupings, the deep seabed mining part of the Convention is of less immediate importance that those parts dealing with areas of national jurisdiction. However, given the Convention as it stands, there are positive indications in respect of this area also. Firstly, the Preparatory Commission is working in an atmosphere removed from the political and ideological polemics reminiscent of the Conference period. It is undertaking the task of drafting regulations for deep seabed mining in a realistic and practical manner with a view to making the system for deep seabed mining work. In the course of this exercise it is to be hoped that many of the perceived difficulties which critics saw while evaluating the Convention from a worst-case situation would be removed and clarified. There is thus good prospect that while working within the framework of the Convention, the Preparatory Commission will considerably improve the Convention, especially for those who find difficulties in certain areas. On the other hand, it has to be recognized that in respect of some areas the differences are irreconcilable. They stand either from ideological positions taken by both sides in the argument or differences in perceptions.

The second positive development in the Preparatory Commission has been the willingness of a number of pioneer investors to work within the Convention regime. We have now four applicants for registration as pioneer investors: France, India, Japan, and the USSR. This is an interesting group of countries coming from Western industrialized states, developing countries, and Eastern European groups. Rights to mine sites acquired under Resolution II of the Conference which establishes and provides for the implementation of the pioneer regime is in fact the beginning of the Convention regime for deep seabed mining. From now on it is becoming increasingly difficult for states to assert that the Convention regime does not exist or that any other regime would take precedence over it.

What of the future? The 1982 United Nations Convention on the Law of the Sea is here to stay. It is not another resolution of the General Assembly. It is a law-making treaty which has had the far-reaching effect of changing the constitutions of states of all shapes and sizes. It has indeed changed the map of the world. It cannot be compared to the Geneva Conventions. The United Nations recognizes this; at the same time it also recognizes the need to encourage accommodation of all states within this Convention. How this can be done remains a matter for the future and depends on the willingness of the states to seek mutually acceptable compromises. It is one of the cardinal principles of the Charter of the United Nations to encourage rule of law in international relations. In pursuance of this principle the United Nations will encourage and assist in the uniform and consistent application of law. This includes the promotion of those parts of the Convention which provide for the peaceful settlement of disputes on issues relating to law of the sea. These provisions are a unique achievement of the Convention and are an important contribution to rule of law. Our task in this respect will not be as difficult as between parties to the Convention. We hope that in the pursuit of rule of law the difficulties with respect to parties and non-parties will not be insurmountable. We will encourage cooperation between all states in areas where views converge and try to help in the reconciliation in those areas where there is divergence. We believe that states will eventually find ways to avoid conflicts where their views diverge. Open conflicts and confrontations on law of the sea issues will not help anyone. We hope good sense will prevail all around. To sum it up, the Convention establishes norms for the conduct of relations between states. norms which if adhered to by everyone would contribute to stability and certainty in international law and thus contribute to the peaceful uses of the oceans. If, on the other hand, it is flaunted by states -- especially important states -- this will encourage the disintegration of the Convention, including those parts of it which might be claimed as customary international law. Such disintegration will not be in the interests to anyone. One might win on one point but lose in other areas.

PART IV

THE DEVELOPMENT OF OCEAN MINERAL RESOURCES

INTRODUCTORY REMARKS

Conrad Welling
Ocean Minerals Company

I am Conrad Welling, chairman of this afternoon's panel, "Development of Ocean Mineral Resources." I appreciate the opportunity to address you this afternoon. I have been involved in advanced technology for most of my career, and the last twenty years have been in ocean resources development. The problem with development is the many unknowns that you face; even after you list the unknowns, there are what in aerospace are called the "unknown unknowns" -- "unk-unks" -- and those are what get you into trouble. When I started my deep ocean mining program many years ago, we listed four areas of unknowns: the technology we thought we would be able to develop, the environmental problems we thought we would be able to solve in a satisfactory manner, the economic unknowns, and the legal-political unknowns.

We tried to solve the problems of these four major areas, but the "unknown unknown" was the market, and that is what did us in. Back when we started to develop this program, the metals market had been advancing at a rate of from 3 to 6 or 7 percent a year, compounded. We knew that rate would not continue, so very conservatively we cut the post-World War II growth rate of metals in half. We were wrong. In the last ten years there has been practically no growth in metals whatsoever. This has caused a tremendous over-supply of metals in the market, simply because all the mining companies had made long-range plans to expand at a rate that even at half proved to be in serious error. As a result, it may be many years before the over-supply is absorbed by the market place.

Furthermore, in the last ten to twenty years there has been a revolution in solid-state physics, not only in the technology of communications and computers, but also in new materials that could or can substitute for many metals. I will cite just a few. The development in polymers, the plastics field, has been phenomenal; polymers are replacing many metals. The development of ceramics has also been phenomenal -- the strength of these ceramics has been brought to a point where today on the test stand there are ceramic piston engines. The pistons, the cylinders, most of the engine is made of ceramics that allow the engine to run at high temperatures without a radiator at efficiencies 50 to 100 percent above existing engines. We all know about the fiber optics. In a Bell Labs test, a fiber optics unit transmitted the same communication in one second that it takes seventeen hours for a copper cable to transmit.

These developments have had a great impact upon our estimates for ocean mining. This does not mean that ocean mining is a long way off. It may mean, though, that our first prospects, such as those for the manganese nodules, may be delayed. The real effort is in basic sciences and exploration;

prospects, such as those for the manganese nodules, may be delayed. The real effort is in basic sciences and exploration; our knowledge of the ocean is growing rapidly. It was a scientist who first brought manganese nodules to our attention. It is only in the last four years that we have known about the polymetallic sulfides on which the first speaker will talk. If we mine the manganese crusts, it will probably not be for the manganese but for some precious and rare metals and rare earths that we have not been able to find in adequate supply on land. So there is a great future for ocean minerals. Here again, however, the unknowns and knowns may lead us astray in trying to predict exactly how development will take place.

The work on manganese nodules has not been wasted. The industry has probably spent collectively about a half a billion dollars in the last twenty years on the technology. That technology has been brought to a point where, I believe, if we do find a material that is needed in the market place, we can design equipment to mine it productively no matter where it is found in the ocean. It behooves us to be very careful in our estimates of the minerals market. We can be certain that it will be different from what we think it is going to be. It was brought to my attention some years ago that the great evil we obtained from the ancient Greeks was the extrapolation of data. That got us into a lot of trouble. I projected a relatively conservative growth rate of metals which proved to be totally wrong. In this area, as in others, the only constant is change.

The dynamics of the technical revolution today make prediction a hazardous operation. I can give you an example: some of the zinc deposits in the Juan de Fuca Ridge are as high as 60 percent as compared to zinc ore bodies on land of 8 to 12 percent. However, I can assure you that the technology of the beneficiated land deposits is such that we can get up to 60 percent from the land deposits at no more cost than that to mine the rich deposits on the seabed. I don't mean in any way to discourage anyone, because I feel that the information we are gaining from this excellent research is going to lead to other discoveries. After all, four years ago we did not know that these deposits existed.

With that I will introduce our first speaker, Alexander Malahoff. Alexander Malahoff is a leading scientist in oceanography, previously with NOAA and now with the University of Hawaii. He has been a pioneer in the research and exploration of polymetallic sulfides.

Our second speaker is David Callies, who teaches property land use and state and local government law at the University of Hawaii School of Law.

Our third speaker is Myron Nordquist, a partner in private practice. He was formerly the alternate U.S. Representative to the LOS Conference while in the U.S. Department of State, Office of Legal Advisers. He now specializes in ocean resources and international law.

Our fourth speaker is Alexander Krem, Vice President of the Bank of America, who is now involved in investment banking. He

has practiced law with the U.S. Department of Commerce, Maritime Administration, and private practice. Since joining the Bank of America in 1974 he has been responsible for ship financing, long-term leasing in North America, Asia, continental Europe, and the Middle East.

The first commentator on the program is James Johnston, senior economist of Standard Oil Company of Indiana (Amoco). His career includes positions as an economist with the Rand Corporation, The Institute for Defense Analysis, and the Secretary's Office of the U.S. Treasury. Jim has also worked closely with our consortium with respect to deep ocean mining activity.

Our second commentator, Joel Paul, is an attorney with Graham and James and a doctoral candidate in International Law and Development at the Fletcher School of Law and Diplomacy.

The third commentator is Eldon H. Reiley, Professor of Law, University of San Francisco, who teaches a course on international law and developing technology.

Our last commentator today is Robert Bowen of the Marine Policy and Ocean Management Center of the Woods Hole Oceanographic Institution.

POLYMETALLIC SULFIDES AND COBALT CRUSTS: NEW MINERAL RESOURCES OF THE OCEAN FLOOR?

Alexander Malahoff
Hawaii Undersea Research Laboratory
and
Department of Oceanography
University of Hawaii

ABSTRACT

Polymetallic sulfide deposits are found as ore bodies on land. These massive sulfide deposits were originally formed on the ocean floor. Active polymetallic sulfide formation is currently taking place along ridge crest segments of the Juan de Fuca and Explorer Ridges located off North America, the East Pacific Rise, and the Galapagos Ridge, as well as on submarine volcanoes of the ridge crests and submarine volcanoes of hot spots such as the Hawaiian Ridge. Submarine hydrothermal vents that are currently generating polymetallic sulfide mounds and chimneys with "smoker" activity are found to be active at water depths ranging from 1600 to 2600 meters along ridge crest segments with medium (5 to 9 centimeters per year) and fast (9 to 16 centimeters per year) spreading rates. During the past six years, detailed submersible-based studies were carried out over large hydrothermal polymetallic sulfide deposits located along the faults of the axial rift valley of the Galapagos Ridge. The geological study of the Galapagos polymetallic sulfide deposits suggests that prolonged hydrothermal activity on a ridge crest, especially that found along the fault boundaries of well developed rift valleys, can develop large-volume, massive sulfide bodies on the contemporary oceanic crust. The geology, size, and mineralogy of the Galapagos massive sulfide body resembles massive sulfide ore bodies found on subaerial segments of fossil oceanic crust. The study also suggests that the size of massive sulfide bodies found along the crest of the mid-ocean ridge systems may vary from a few meters to 2000 meters in length. Commercially viable polymetallic sulfide deposits, however, may be rare. To date, contemporary oceanic analogues of massive sediment-hosted ore bodies have not been detected along the mid-ocean ridge crests but may well be found along the marginal basins of the Western Pacific in the future. Cobalt-rich (up to 1 percent composition) crusts cover the upper surfaces of many off-axis seamounts located close to the Hawaiian Ridge. Research work on the composition and distribution of the manganese crusts in the Hawaiian region have shown that these crusts have accumulated at rates of about 0.1 mm per thousand years as blankets on stable strata of the seamount apexes at water depths ranging between 500 and 3000 meters. The distribution of the cobalt content of the crusts is negatively correlated with the oxygen content of the water column. The highest concentration of cobalt in the crusts is

found at a water depth of about 1000 meters. Commercial development of cobalt-rich manganese crust may precede that of polymetallic sulfides.

INTRODUCTION

Since 1978, following the initial discoveries of hydrothermal vents along the Galapagos Ridge axis (Ballard et al. 1979; Lonsdale 1977; Corliss et al. 1979), a number of research teams from several nations have continued working on the problem of massive sulfide deposition and hydrothermal mineral formation on the ocean floor. Research work on the geology of the Galapagos (Ballard et al. 1982; Malahoff 1982; Malahoff et al. 1983) and Juan de Fuca Ridges (Normark et al. 1982) and the East Pacific Rise (Spiess et al. 1980) resulted in the discovery of several large polymetallic sulfide deposits located along the axes of these ridges (Ballard et al. 1979; Hekinian et al. 1980; Malahoff et al. 1983, Merge Group 1984). An array of instruments and facilities were used, including multi-beam, echo-sounding vessels such as the French vessel Jean Charceaut, the NOAA ship Surveyor, and the submersible DSRV Alvin (Figure 1), equipped with bottom transponder navigation and bottom photographic capabilities.

The worldwide distribution of hydrothermal activity and polymetallic sulfide deposition is a function of the nature and rate of active submarine vulcanism along the world rift system. The active hydrothermal vents are found within the axial rift valleys of the ridges, a system extending over 60,000 kilometers (Figure 2), including smaller discontinuous spreading centers associated with back arc systems, such as the Bismarck Sea, the Lau Basin, the Fiji Basin, and the Mariana Basin. Submarine hydrothermal activity is also associated with the "hot spot" volcanoes such as those of the Hawaiian Ridge, as well as volcanoes associated with island arc systems. Despite the great extent of these areas, only about 500 of the 60,000 kilometers of the world ocean ridge system have been studied in detail.

The first high temperature hydrothermal vents and smokers were observed along the East Pacific Rise at 21 degrees N (Figure 3) (Ballard et al. 1981). To date, no massive sulfides have been found on the slow-spreading mid-Atlantic Ridge segments. Recent research work carried out by Rona et al. (1984), however, does suggest the presence of hydrothermal activity along the crust of the mid-Atlantic Ridge. The best-mapped hydrothermal deposits along a slow-spreading ridge segment are the metalliferous sediments of the Red Sea (Backer 1985). Backer calculated that about 30 million tons of iron and 2.2 million tons of zinc were deposited in an area of 60 square kilometers along the Atlantis II Deep of the Red Sea. Studies of polymetallic sulfide deposition along the Galapagos Ridge (Malahoff 1982, Malahoff et al. 1983) showed the presence of one of the largest polymetallic sulfide bodies found so far, located on the Galapagos Ridge, about 400 kilometers east of the Galapagos Islands. Polymetallic sulfide deposits recently

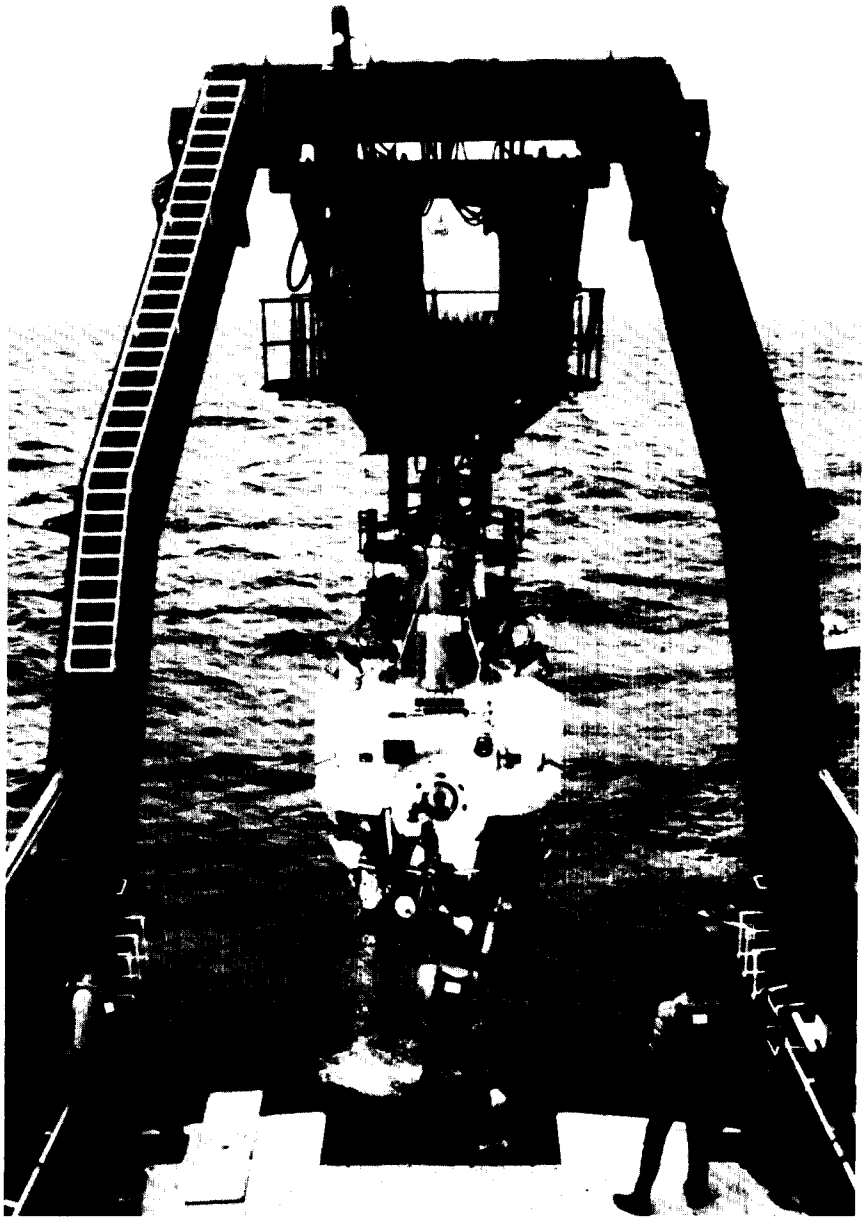


Figure 1. D.S.R.V. *Alvin* being launched from the R.V. *Atlantis II*, Galapagos Ridge, 1985.

The author is grateful to Ms. Cheryl Komenaka for assistance in preparation of this paper and to Dr. Gary McMurtry for helpful discussions.

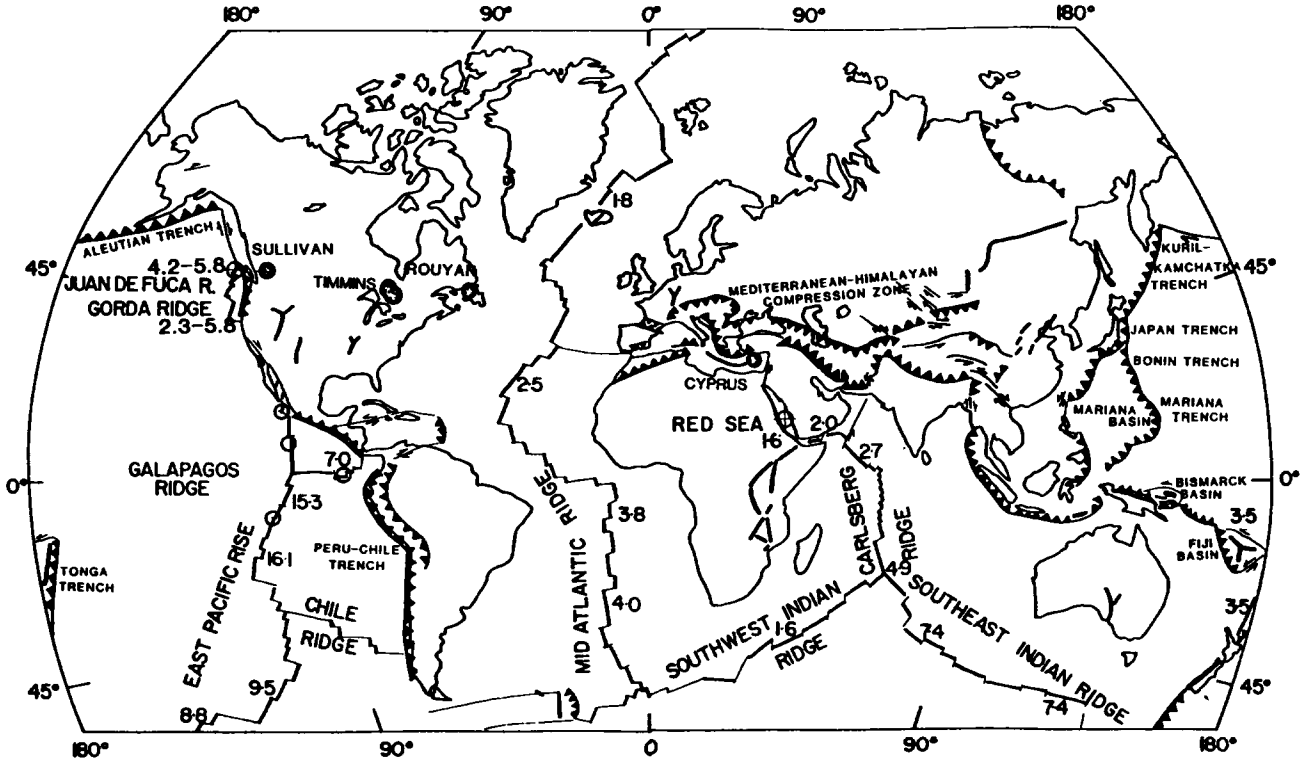


Figure 2. Mid-ocean rift system. Compression and subduction zones, shown by triangles pointing in the direction of underthrusting. Spreading rates along the ridges shown in centimeters per year.

Figure 3. High temperature hydrothermal "smoker" photographed from D.S.R.V. *Alvin* (water depth 2400 meters), East Pacific Rise. The author would like to thank Dr. Robert Ballard for permission to use, in this paper, photographs of hydrothermal vent phenomena taken with the submersible *Alvin*.

observed along the ridge crests of the Endeavour and Explorer Ridges may also be large in volume (Scott et al. 1984). The tonnage of these large deposits could reach several million tons.

BIOLOGICAL ENVIRONMENT OF THE HYDROTHERMAL VENTS

Submarine hydrothermal vents are all characterized by biological communities consisting of a variety of specially adapted animals (Figure 4). Wherever there is warm or hot water penetrating the ocean floor in a diffuse manner, with a temperature of at least 2 to 3 degrees C above ambient, hydrothermal vent-associated clams, mussels and/or worms are present (Lonsdale 1977; Corliss et al. 1979; Francheteau et al. 1979; Desbruyeres et al. 1982; Desbruyeres and Laubier 1980; Enright et al. 1981; Normark et al. 1982; Tunnicliffe 1983a, Tunnicliffe 1983b, Tunnecliffe et al. 1983).

Dense populations of clams have been observed along the Galapagos Rift Valley (Lonsdale 1977) and at 21 degrees North on the East Pacific Rise (Hessler and Smithey 1983). Clam beds are associated with relatively low temperature hydrothermal activity on the ocean floor (Grassle 1982; Hessler and Smithey 1983; Rau 1981). The presence of dead clams at several sites suggests that these populations died with the cessation of hydrothermal water circulation. Based on the analysis of clam shells, their life span -- a good indication of the duration of the hydrothermal systems -- is about 23 to 37 years (Rio and Roux 1984; Roux et al. 1985).

Vestimentiferan worms have been observed to be the dominant animal at certain sites on the Galapagos Rift (Jones 1981), 13 degrees North on the East Pacific Rise, and on the Juan de Fuca Ridge (Hessler and Smithey 1983; Tunnicliffe et al. 1985). Mussels dominate at several localities on the Galapagos Rift; they are present at 13 degrees North but are absent from 21 degrees North on the East Pacific Rise (Grassle 1982).

The animals living at sites of hydrothermal venting have proved to be unusually adapted, for they exist in what was formerly thought to be a toxic environment, i.e., a habitat with relatively high levels of hydrogen sulfide and low levels of oxygen, but they are absent from sites of polymetallic sulfide deposits where hydrothermal activity has ceased.

FORMATION OF SUBMARINE POLYMETALLIC SULFIDE DEPOSITS

The phenomenon of mineral formation along the volcanically active mid-ocean ridge segments located at depths between 1600 meters, such as on the Juan de Fuca Ridge Axial Volcano (Merge Group 1984), and 2600 meters, such as the Galapagos Ridge (Ballard et al. 1982; Malahoff 1982) and the East Pacific Rise (Ballard et al. 1979) is related directly to the heating of the circulating seawater by the magma located under the axis of the mid-ocean ridge. The magma arrives on the ocean floor at a temperature of about 1200 degrees C and solidifies rapidly,

Figure 4. Vent community of Vestimentifera worms, clams, amd crabs located along low temperature hydrothermal vents of the Galapagos Ridge (water depth 2500 meters).

forming new ocean floor along the axis of the rift valley. The new lava, especially the sheet and lobate flows, probably forms a temporary cap rock over the underlying hot magma. Ocean water circulating down through the adjacent colder crust near the axial rift encounters the hot magma underlying the axis of the ridge. At a depth of a few hundred meters to two kilometers below the floor of the rift axis, the percolating seawater is heated to temperatures of up to 400 degrees C and begins to migrate upward, where it tends to be trapped, under pressure, beneath the newly formed cap rock of sheet or lobate basalt overlying the axial rift (Ballard et al. 1979).

The oceanic crust is basalt, largely an aluminun silicate rock, free of quartz, rich in iron and manganese, and containing a large variety of low percentage metallic elements which are leached from the basalt by the heated seawater to form the polymetallic sulfides. Details of the chemistry of the heated seawater-rock interface are described by Edmond and Von Damm (1983) and Hekinian (1984). The current understanding of the process of hydrothermal mineral formation is as follows: During its residence time and upward passage below the cap rock, the 300 degree to 400 degree C, superheated ocean water begins to concentrate cations of calcium, magnesium, sodium, potassium, and traces of iron and manganese and anions of sulfate and chloride from the seawater (Edmond and Von Damm 1983). The release of hydrogen, hydrochloric acid and silicic acid during this passage makes the superheated seawater more corrosive and thus leaches the positively charged cations of metals such as copper, zinc, manganese and cobalt, which are normally trace constituents in the basalt, out of the basalt and transports these components to the surface of the basaltic crust on the ocean floor. En route, chemical reactions take place in the crust, resulting in the precipitation of metallic sulfides as well as silicates within the crust. Gases such as hydrogen, hydrogen sulfide, and carbon dioxide are formed during this process. Near the surface of the ocean floor, iron sulfide, copper sulfide, and zinc sulfide are deposited and hydrogen sulfide, methane, hydrogen, carbon dioxide transported in solution within the hydrothermal effluent.

When the superheated (300 degrees to 400 degrees C) water encounters oceanic water at an ambient temperature of 2 degrees C, immediate cooling of the heated water takes place, followed by chemical reactions where the contained cations and anions combine to form sulfide minerals which precipitate either within the crust or through the action of "black" and "white" smokers (Figure 3). The mineral-laden water exits at velocities of between 0.5 and two meters per second. Hekinian (1984) calculated that for a vent with a diameter of three centimeters, the flow rate is between 3.5 and 14 liters per second. As the fluid exits, the precipitating minerals build up sulfide chimneys (Haymon 1983) around the hydrothermal vent. The "black smoker," so named because of the colored smoke-like consistency of the effluent exiting from the hydrothermal vents, precipitates iron sulfide, the "black smoke," and manganese

oxide as well as metalliferous sediment into the water column surrounding the vent. Iron, copper and zinc sulfide comprise the bulk of the chimney and are the principal constituents of polymetallic sulfides found on the ocean floor and also are the major constituents of polymetallic sulfides found on segments of ancient ocean floor now exposed as subaerial lava terrain in Canada (Franklin et al. 1981) and Cyprus (Figure 5) (Adamides 1980) and elsewhere.

It is interesting to note that the copper and zinc content of fresh basalt is about 100 and 150 parts per million (ppm), respectively. When these elements are deposited as sulfides, their concentration has increased by ten thousand times. Hekinian (1984) calculated that, in order to produce a polymetallic sulfide deposit 3 cubic meters in volume and containing 50 percent zinc, it would be necessary to percolate superheated hydrothermal water through 1500 cubic meters of basalt with a normal zinc content of 100 ppm. Cobalt and silver are also found associated with minerals such as pyrite, chalcopyrite and sphalerite. The bulk content of silver may be as high as 400 ppm in some of the sulfides, corresponding to an enrichment of five thousand times more than the concentration in the parent basalt. Hekinian also calculated that, for a chimney with a flow rate of 10 liters per second, the mass precipitation of metalliferous deposits could be 100 kilograms per day. Some of this precipitated material is deposited in chimneys, and some of the material is dispersed by the oceanic water and is deposited as metalliferous sediments nearby or elsewhere.

At hydrothermal water temperatures of 300 degrees to 400 degrees C, "black smokers" may be encountered at the vents, and at water temperatures below that, "white smokers" (the white "smoke" consists of anhydride) may be observed. Frequently, white "smoke" emanates from the same chimney as black "smoke". Chimneys with heights up to 30 meters commonly develop at the vent sites. After hydrothermal activity ceases, the massive sulfide deposits remain behind in the form of chimneys and chimney mounds. Areas of extensive hydrothermal deposits such as those observed along the Galapagos Ridge (Figure 6) (Malahoff et al. 1983) may have been built through continuous hydrothermal activity at the site over a period of one hundred years or more. Nevertheless, on a geologic time scale, all massive polymetallic sulfide deposits of the mid-ocean ridge systems can be considered "instantly" formed deposits and accordingly, sulfides may be regarded as renewable resources, at least within the time frame of a few human generations.

The Galapagos Ridge sulfides, and others so far observed, show similar processes of deposition. All sites show the presence of a capping rock in the vicinity of the hydrothermal vents. Normally, the capping rocks associated with the high temperature vents are basaltic sheet flows or lobate flows (Figure 7); pillow basalts are too porous, so the hot hydrothermal water probably dissipates and never reaches the high temperature of up to 400 degrees C, temperatures required to leach, transport and precipitate polymetallic sulfides. The

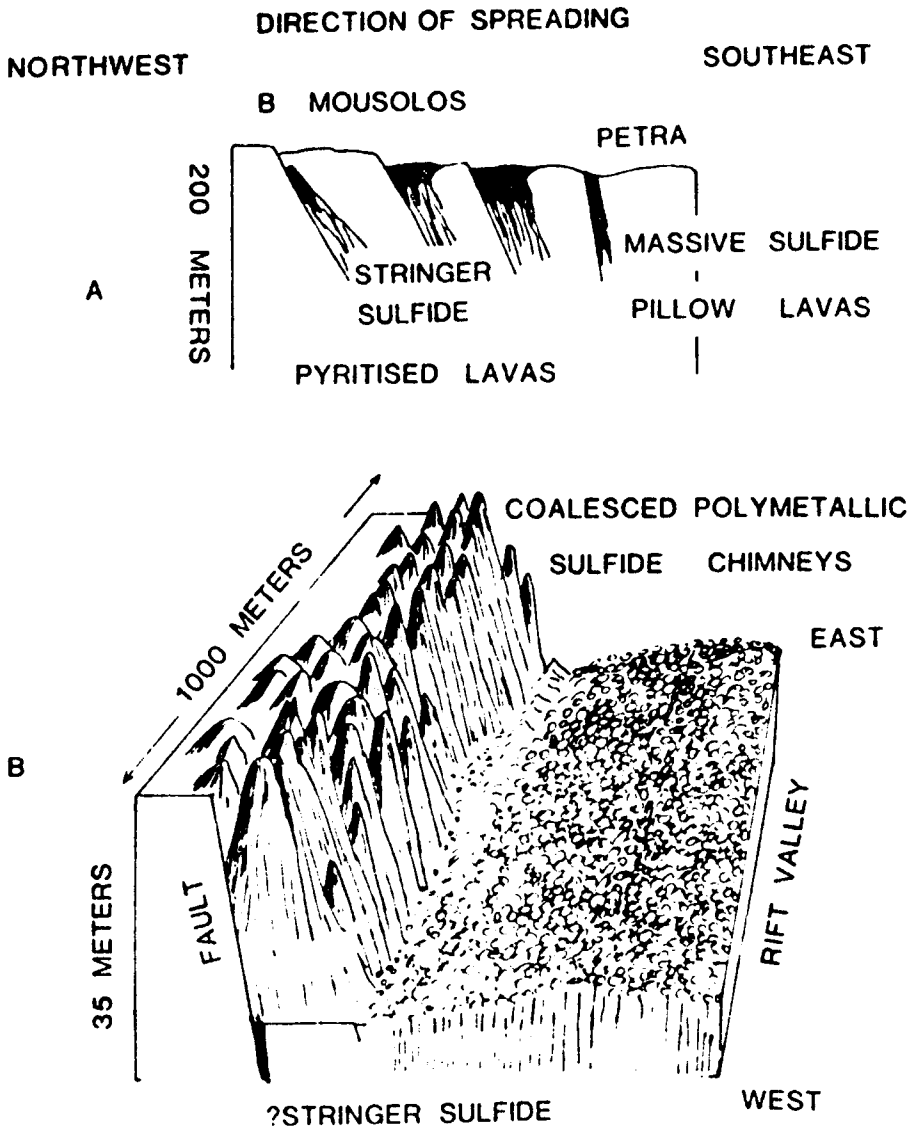


Figure 5. Schematic diagram of coalesced sulfide chimneys along the southern rift valley fault boundary of the Galapagos Ridge at 85 degrees 50 minutes W, 0 degrees, 45 minutes N shown below a cross-section of the Cyprus ore bodies of Mousolos and Petra (Malahoff 1982).

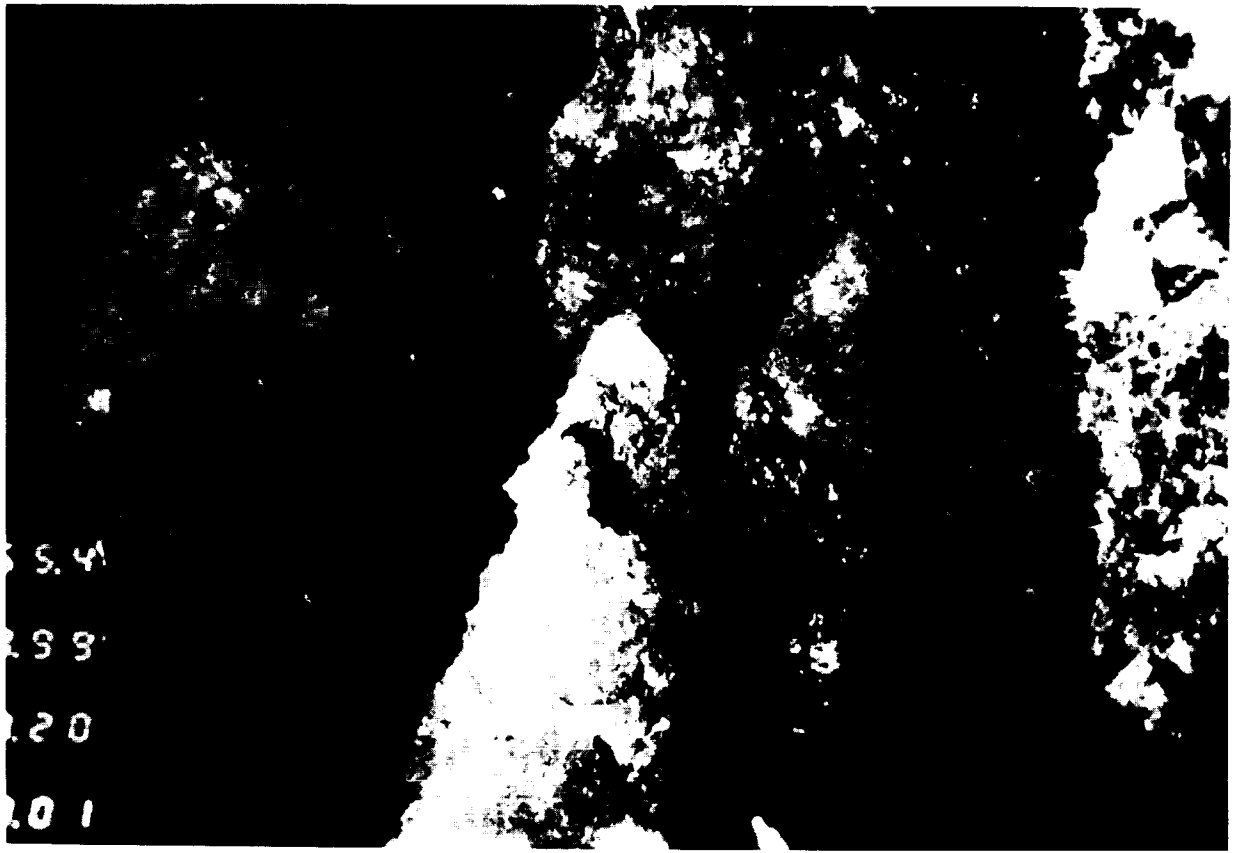


Figure 6. Coalesced chimneys of an inactive vent, located at 85 degrees 50 minutes W, 0 degrees 45 minutes N, Galapagos Ridge, as viewed from the submersible *Alvin* (water depth 2600 meters). Chimneys shown are 20 meters high.

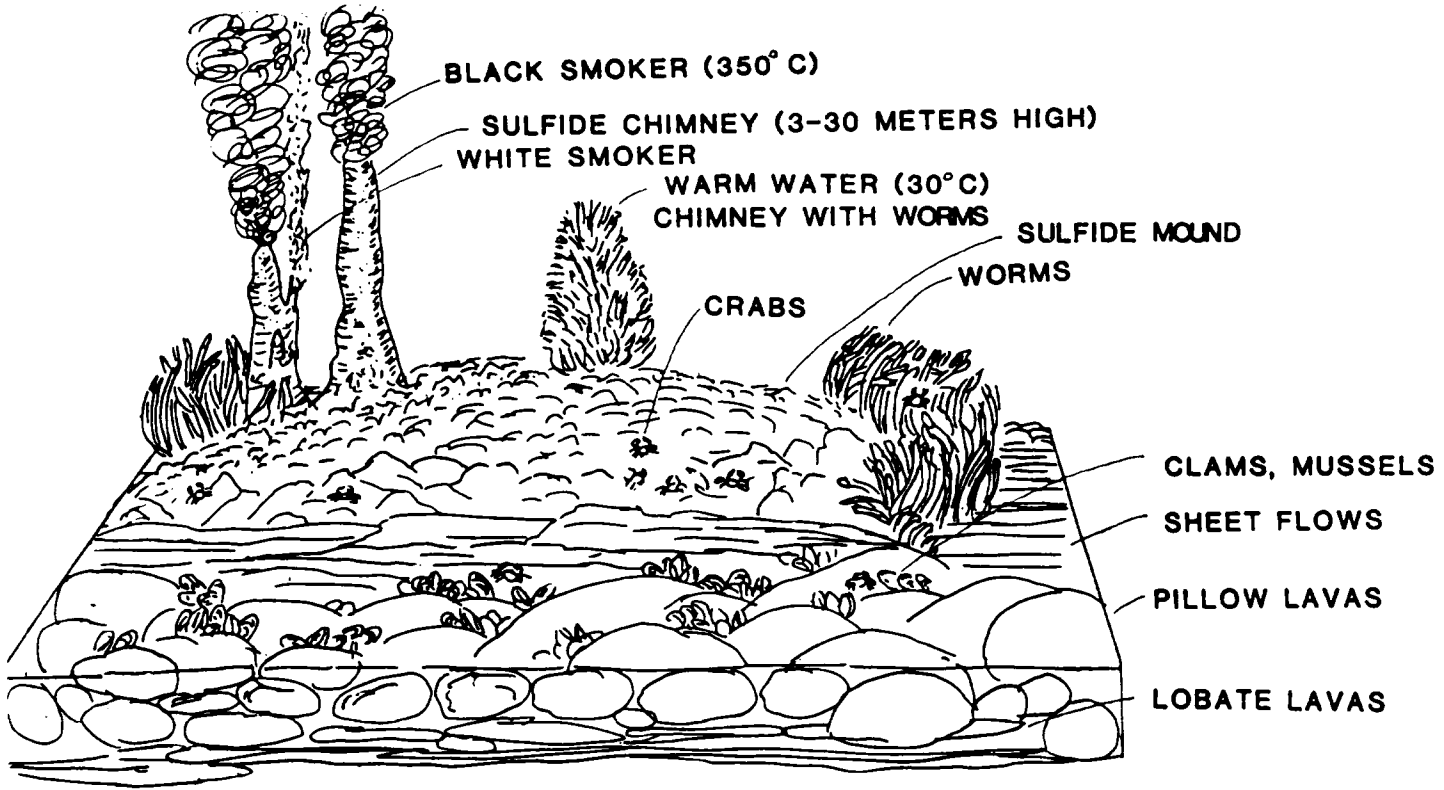


Figure 7. Schematic view of a hydrothermal vent, showing the location of vent communities and the associated pillow, lobate and sheet lava flows.

hydrothermal activity appears to cease when renewed rifting breaks up the capping rock and the local hydrothermal circulation system.

If Hekinian's (1984) calculations are a good approximation to the average rate of polymetallic sulfide deposition for a hydrothermal vent, then almost two million cubic meters of basalt would have to be leached by the circulating fluids in order to build hydrothermal deposits similar to the ones observed along the Galapagos Ridge, i.e., a mound measuring 30 meters high, 5 meters wide, and 10 meters long, containing about 1500 cubic meters of sulfide. After deposition, the massive sulfide deposits and their underlying crust are moved laterally away from the rift as a result of the action of sea floor spreading. Two phenomena may take place during this motion of the sulfide-capped plate away from the axis of the rift valley:

(a) Dissolution of the sulfides may take place by the way of oxidation, oxidized deposits may be dissolved by ocean water circulating downward near the vicinity of the next generation of hydrothermal vents and redeposited back at the new hydrothermal sites of the rift valley; and
(b) Preservation of the sulfides through sedimentation, transport on the mobile oceanic crust, and possible obduction on land, as in the case of ophiolite-associated massive sulfide deposits.

An extensive marine massive sulfide deposit, as shown by the Galapagos Ridge example (Figures 7 and 8), shows the following characteristics (derived from detailed chemical analyses on ten samples from the Galapagos polymetallic sulfide deposit) (Malahoff 1982). The elemental analysis consists of the following: 7 percent copper, 30 percent iron, 40 percent sulfur, 7 percent silica, 1 percent zinc and manganese under 0.5 percent; variation from sample to sample can be large with percentages of copper as high as 27 percent. The mineralogy consists largely of abundant pyrite surrounded by chalcopyrite. The average density is 4.1 g/cc. All samples show fossil biota in the form of worm pseudomorphs, now largely with pyritic infill, indicative of close and abundant association of the worms with the process of sulfide deposition until excessive heating killed them off.

Sulfide samples recovered from land exposures or from mines may also contain fossil hydrothermal worms (Haymon et al. 1984). Haymon dated the fossil worms sampled from the Somail Ophiolite to be as old as the Cretaceous.

All polymetallic sulfides, whether recovered by dredge grab (Figure 9) or submersible from the ocean floor, or recovered from land-based mines, have one chemical characteristic in common: although diverse in metallic content, the chemistry of these mineral deposits is very simple -- all the principal components of the mineral body are metallic sulfides. Therefore, by composition, sulfur may account for as much as 40 percent of the content, iron for about 20 percent, copper up to

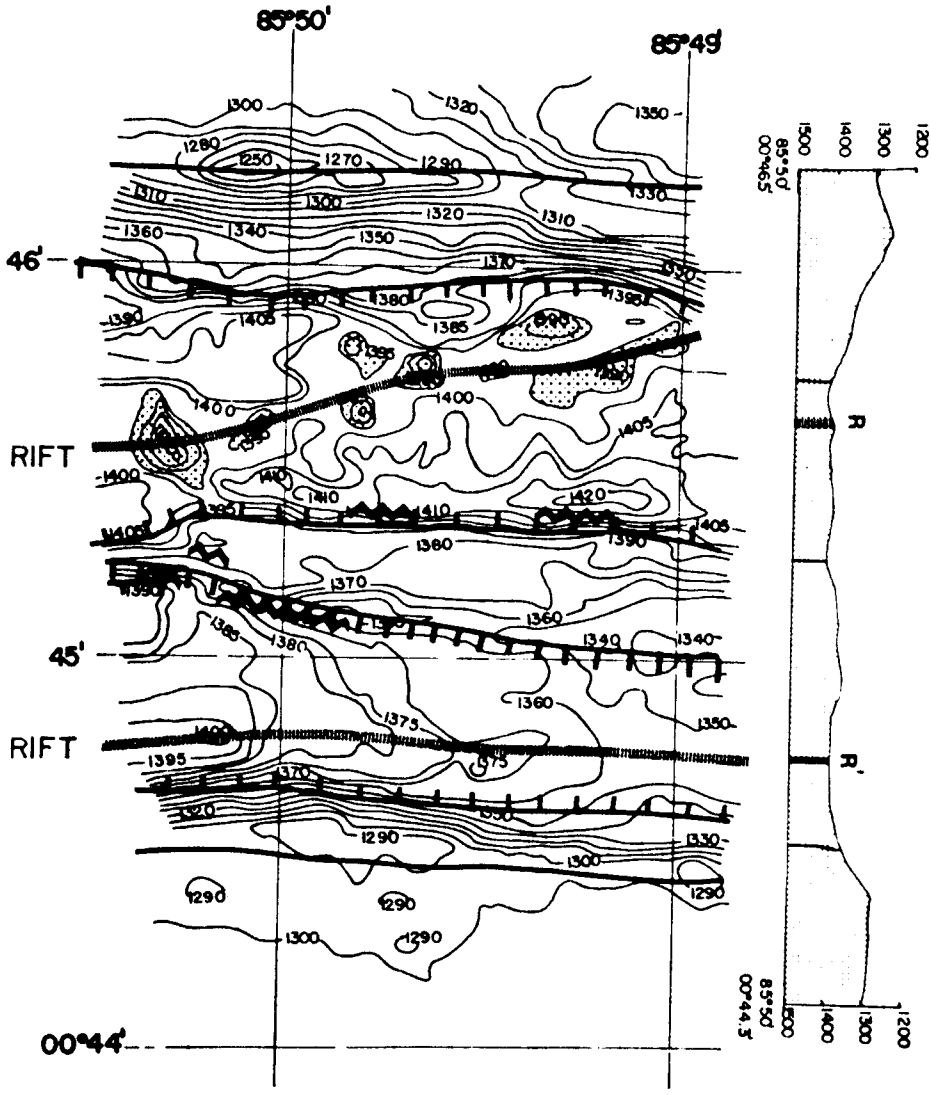


Figure 8. Bathymetric map showing the location of the polymetallic sulfide deposits on the Galapagos Ridge. Sulfide mount sites shown by zig-zag lines (water depth in fathoms).

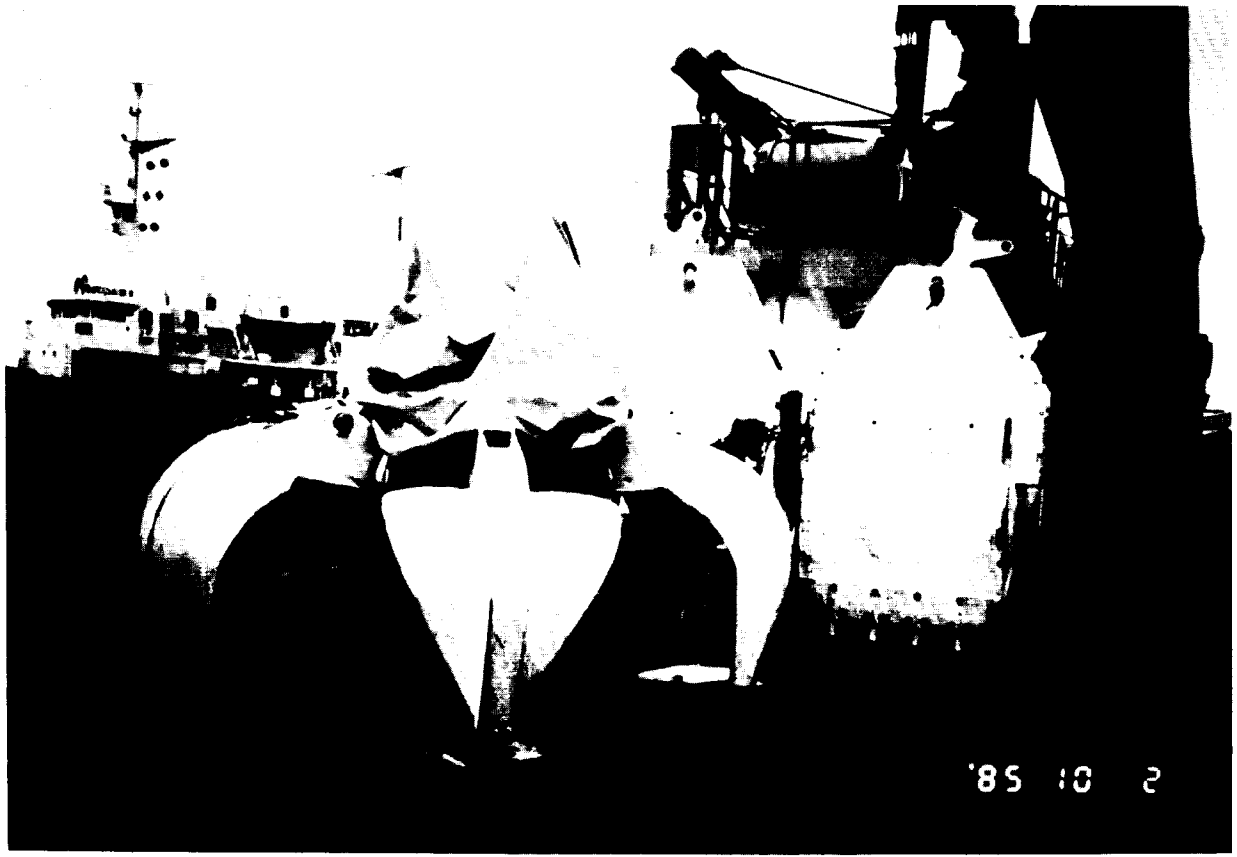


Figure 9. Remotely operated, television-controlled electro-hydraulic powered ocean floor grab used in recovering large volume sulfide samples off the ocean floor. Designed and manufactured by Preussag A.G.

20 percent and zinc up to 20 percent, although the averages for zinc and copper are much less. The zinc-copper-iron ratio is highly variable within any one polymetallic sulfide deposit, as well as from deposit to deposit. The sulfides mined at Noranda in Quebec have an average of 3 percent copper and 1 percent zinc component with silver extracted at 30 grams per ton and gold at 0.4 grams per ton (Spence and De Rosen-Spence 1975). The size of the polymetallic sulfide lenses mined within Noranda's Millenbach mine (Knuckey et al. 1985) ranges from 4,000 tons to 181,000 tons, and polymetallic sulfide deposits, located within the "stringer" or hydrothermal feeders, range in size from 5,000 to a million tons, for a total regional ore volume in excess of 2 million tons. The important fact to observe from these figures is that commercial mines like Millenbach consist of several small deposits not unlike those that may be found on the ocean floor in the form of individual or coalesced smokers (Figure 6), although the size of the mineral bodies observed to date along the rifts of the ocean floor is much smaller than that of the continental ore bodies. A typical cross-section of a Millenbach ore body is illustrated in Figure 10, with dimensions close to that of the ridge-crest polymetallic sulfide mounds described by Ballard et al. (1981) and Hekinian et al. (1980) for the East Pacific Rise sites. The total, three-dimensional aspect of the oceanic mineral bodies, however, is still not known. Recently, massive sulfides also have been discovered off the west coast of North America (Canadian-American Seamount Expedition 1985). The Gorda/Juan de Fuca Ridge system, located off California, Oregon, Washington and Canada's British Columbia, marks the site of numerous hydrothermal vents and several sulfide deposits (Figure 11). Multi-beam mapping of this ridge system shows geological structures similar to those observed over the East Pacific Rise and the Galapagos Ridge. Geochemical anomalies have been located over several active hydrothermal sites (Canadian-American Seamount Expedition 1985; Normark et al. 1982). Dredging and sampling by submersible have yielded zinc sulfides with up to 50 percent zinc and 290 ppm of silver (Normark et al. 1982). Recent detailed mapping and submersible dives by both Alvin and Canada's Pisces have shown these hydrothermal vent and sulfide sites to be ubiquitous along the Juan de Fuca, Endeavour and Explorer Ridges. Delaney et al. (1984) observed temperatures of 400 degrees C within sulfide-mound chimneys 5 to 18 meters high at a depth of 2200 meters on the Endeavour Ridge. Hammond et al. (1984) observed black smokers as well, emanating from vents at the top of Endeavour Ridge chimneys, some of which were 15 to 20 meters high. The northernmost ridge segment of the Gorda/Juan de Fuca Ridge is marked by the Explorer Ridge, a separate ridge segment with a calculated spreading rate of 4.2 centimeters per year (Riddihough 1983). On the shallowest segment of the ridge, located at a depth of 1800 to 1950 meters, Scott et al. (1984) observed the presence of 40 sulfide deposits along an 8-kilometer-long segment located between 49 degrees 42 minutes N and 49 degrees 46 minutes N. The shallowest high

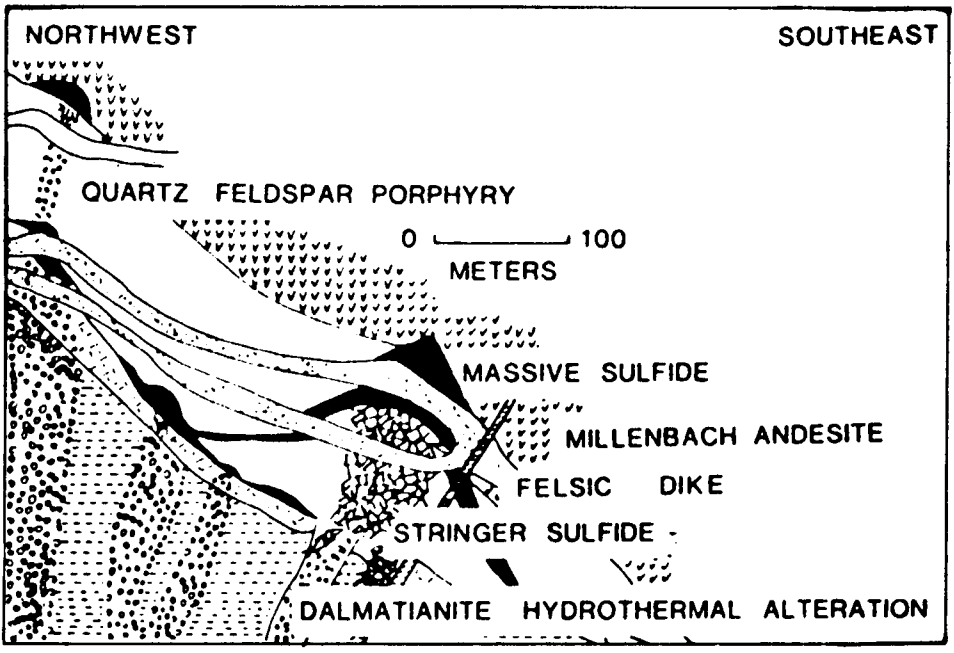


Figure 10. Cross-section of the Millenbach Ore Body, Rouyn, Quebec, Canada (Knuckey et al. 1985).

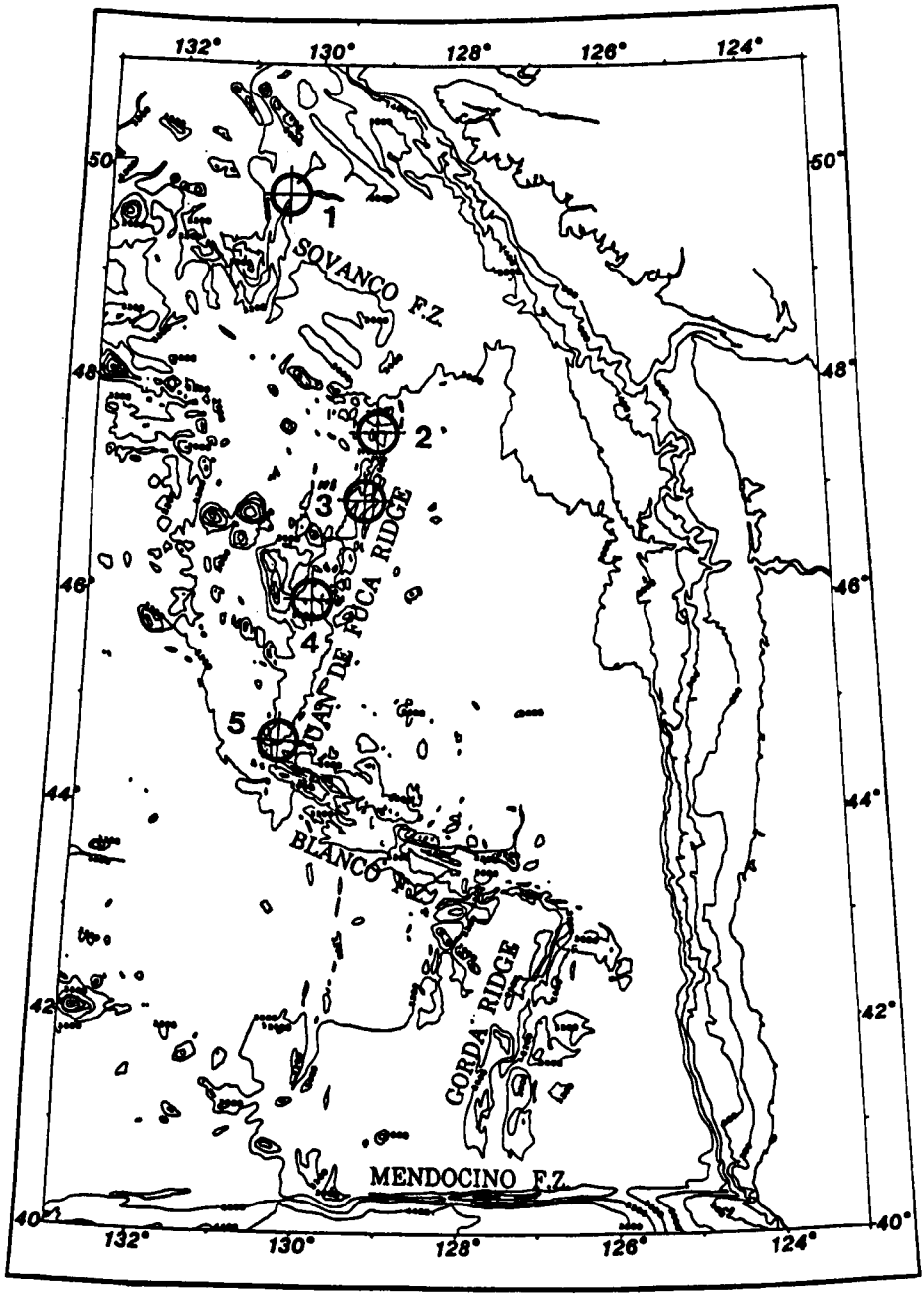


Figure 11. Location of the polymetallic sulfide precipitating hydrothermal vents on the Juan de Fuca Ridge.

temperature, active hydrothermal vent was observed by Malahoff et al (1984), located at a water depth of 1560 meters within the caldera of Axial Volcano, Juan de Fuca Ridge, at 45 degrees 58 minutes N. This particular vent consisted of both black and white smokers with a maximum temperature of 293 degrees C recorded by the Alvin thermister. Low temperature hydrothermal vent deposits, consisting of iron oxide (Figure 12) and nontronite, surround the vent for a distance of several hundred meters (McMurtry et al. 1984). The extensive ocean floor hydrothermal activity located at sites along the Juan de Fuca, Endeavour, and Explorer Ridges is also characterized by the presence of high levels of iron and manganese particulate matter contained in a mid-water hydrothermal plume detectable tens of kilometers away from the ridge crest (Massoth et al. 1984).

It is particularly interesting to note that although the Juan de Fuca (5.8 cm/yr spreading rate), Endeavour (6.0 cm/year) and Explorer Ridge (4.2 cm/year) systems show morphological characteristics of a medium-rate spreading system (Riddihough 1983), extensive hydrothermal vents are located on all three of these ridges with the intensity and distribution of the hydrothermal venting comparable to those found along the East Pacific Rise. The separation between the individual hydrothermal vent sites appears to be on the order of tens of kilometers. Comprehensive research conducted during the past two years along the Juan de Fuca, Endeavour, and Explorer Ridge systems suggests that the extent of hydrothermal activity and polymetallic sulfide deposition along the oceanic ridge systems is more a function of the episodic magmatic phase of a particular segment than of the spreading rate of the ridge as a whole. Therefore, at any given time, a ridge segment with medium (or even slow) average spreading-rate may show active hydrothermal venting as extensive as that found along segments with fast spreading rates. Comparative observations between the extent of hydrothermal activity and spreading rate suggest that the period between active magmatic cycles, which are marked by extensive extrusion of lava, and hydrothermal activity accompanied by polymetallic sulfide deposition is shorter for fast-spreading segments than for medium- or slow-spreading segments. The interval between magmatic constructional cycles is marked by tectonic activity and extension of the crust within the axial rift. Long extensional periods lead to the development of deep and wide rift valleys, which are extensively rifted and faulted along the crests of slow spreading centers such as the Mid-Atlantic Ridge. The northern end of the Gorda Ridge is characterized by the presence of a deep axial rift valley. as well. The structural setting of the Gorda Ridge, which is the only active ridge segment located within the EEZ of the United States, suggests that it is currently in a predominantly extensional phase. In contrast, the northern end of the Explorer Ridge, which is located within the Canadian EEZ and where extensive sulfide deposits have been recently observed, is marked by a prominent ridge located at a water depth of 1600 meters. This ridge segment appears to be

Figure 12. Low temperature iron oxide nontronite chimneys of the Axial Caldera, Juan de Fuca Ridge hydrothermal vents, photographed from the submersible *Alvin*, July, 1984.

completing a constructional phase in its development. The relatively frequent magmatic constructional cycles observed along the fast-spreading segments of the East Pacific Rise obliterate most tectonic features; a high ridge crest with a narrow, shallow, and frequently non-existent rift valley results (Macdonald 1982). Accordingly, massive polymetallic sulfide deposits may, indeed, be present along slow-spreading ridge segments, but they are probably separated by greater time and distance intervals.

Volcanically active seamounts may also show sites of hydrothermal deposition. Lonsdale et al. (1982) observed extensive sulfide deposits located on "red" and "green" volcanoes of the East Pacific Rise. Loihi submarine volcano (Figure 13), located a kilometer below the ocean surface south of the island of Hawaii in the Hawaiian Archipelago, marks the latest phase of Hawaiian hot spot activity (Malahoff et al. 1982). This active seamount is located along the Hualalai-Maunaloa volcanic trend of Hawaii (Figure 14). The slopes of the volcano, Loihi, as seen in bottom photographs, show extensive erosion due to downslope, mass wasting of the basalt and talus formation. Analyses of a high resolution multi-beam bathymetric survey and bottom photographic data over the volcano show the presence of a large caldera-like crater, two rifts, two pit craters (about half a kilometer in diameter), abundant talus, and recent lava flows, around which are located seven acres of hydrothermal fields with abundant hydrothermal chimneys, one to three meters high (Figure 15). Throughout the talus slopes, there is evidence that hydrothermal fluid has penetrated through the talus and has deposited nontronite on the surface of the ocean floor. Temperature anomalies of 1 degree to 2 degrees C have been observed five meters above the hydrothermal chimneys recorded in the photographs (Malahoff et al. 1982, McMurtry et al. 1983).

FUTURE ECONOMIC POTENTIAL OF POLYMETALLIC SULFIDES

Although marine polymetallic sulfide deposits may themselves prove to be a valuable resource in the future, the current scientific value of ocean floor sulfides lies in the understanding of their unique processes of formation, as well as their role as models that may be used to assist in the discovery of analogous deposits on land. Cyprus, as well as Noranda and Kidd Creek, Canada, all mark mining sites of polymetallic sulfides, and all the areas show the presence of an associated fossil oceanic crust. Reconstructing geological history by studying active hydrothermal processes on the ocean floor has given insight into the unravelling of the mechanisms by which this important class of long-utilized minerals was formed.

The ocean floor itself is the site of a wide range of precipitated hydrothermal minerals with possible future economic potential. These deposits range from the currently-mined metalliferous brines of the Red Sea to the active "smokers" of the East Pacific Rise, to the massive polymetallic deposits of

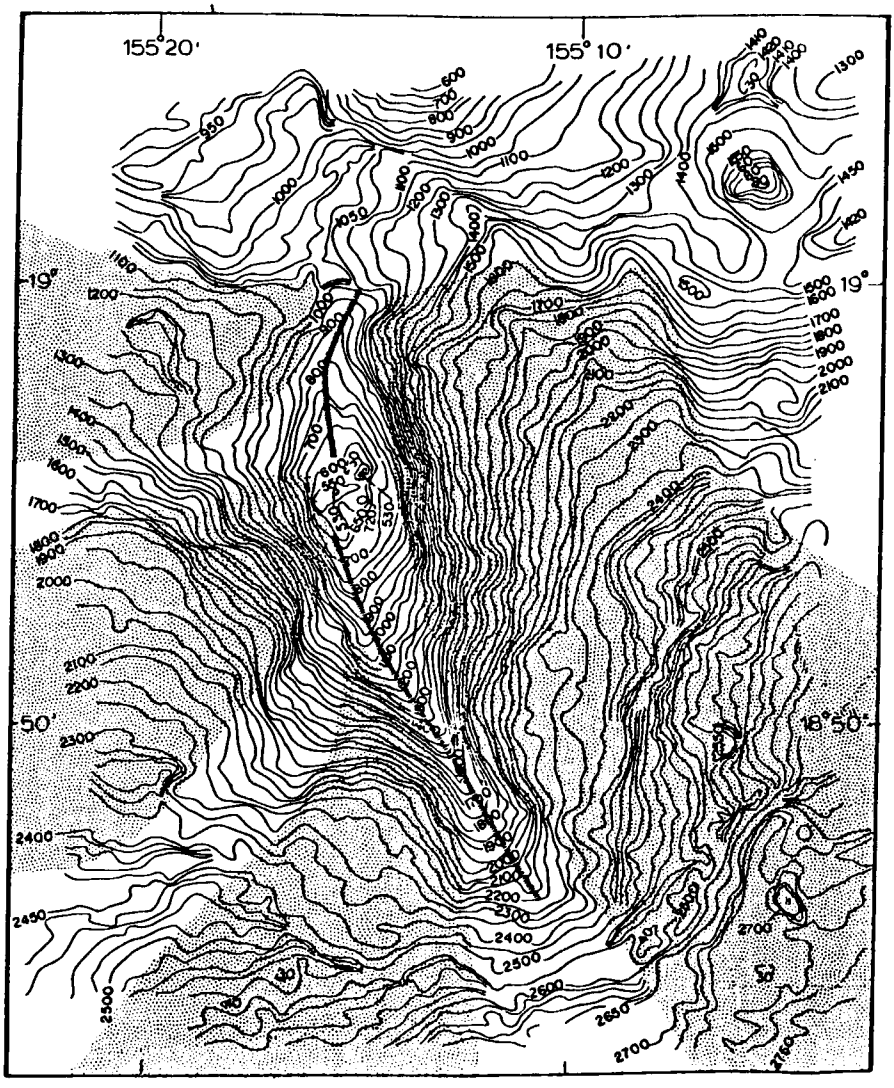


Figure 13. Bathymetric map of the Loihi submarine volcano, Hawaii (contours in fathoms). Areas covered by faults shown by shaded overlay.

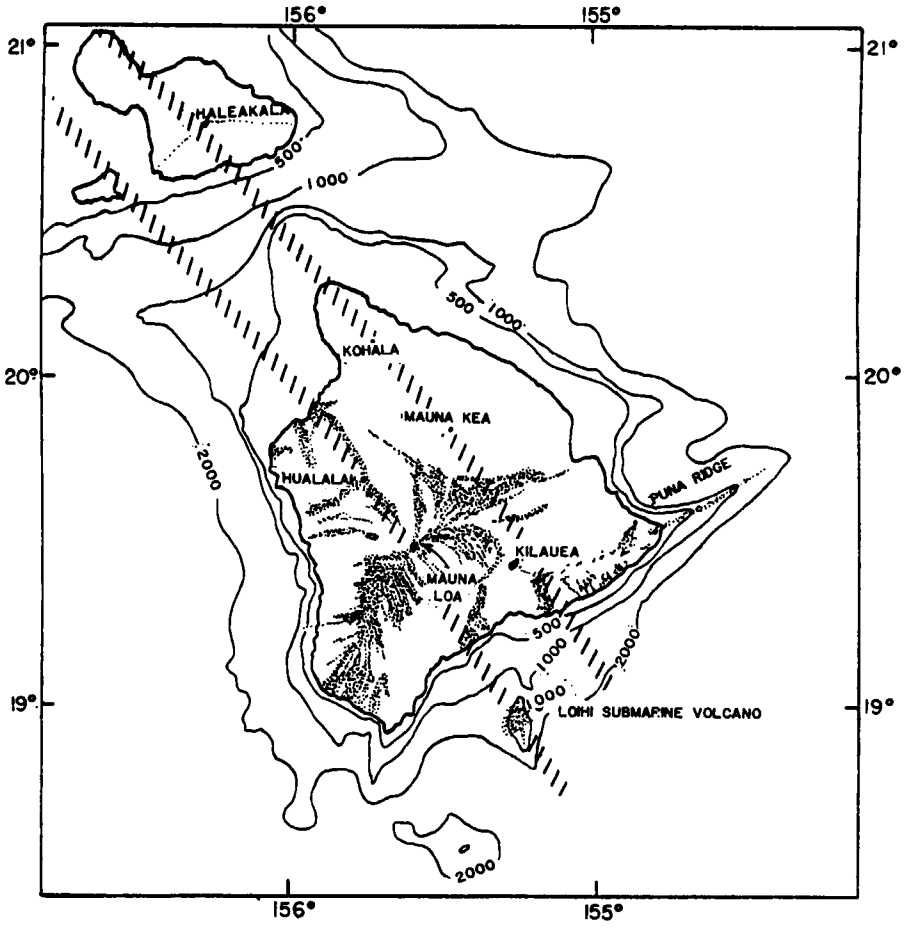


Figure 14. Location of Loihi Volcano on the Hawaiian Hot Spot trace.

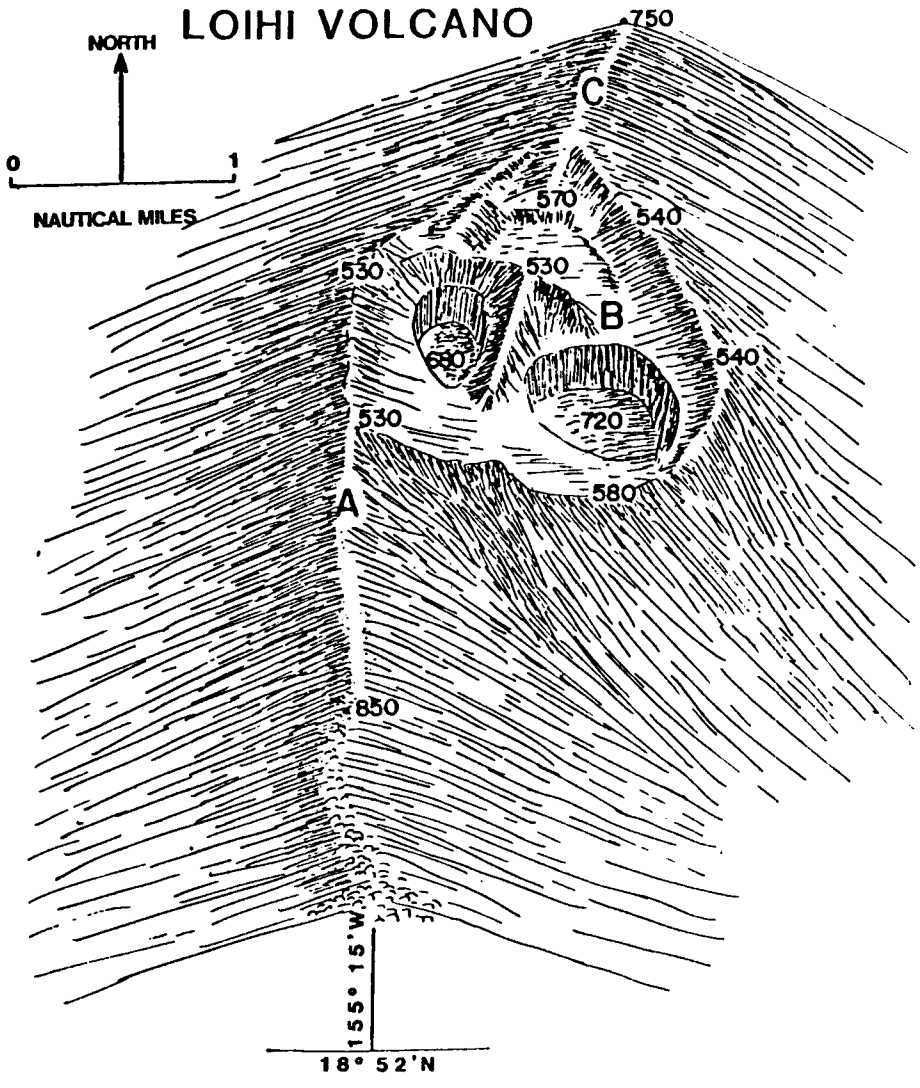


Figure 15. Physiographic diagram of the summit of Loihi Volcano (spot depths in fathoms).

the Galapagos Rift, and to the zinc sulfide deposits of the Juan de Fuca Ridge. All these deposits have one factor in common -- they have all been formed very recently along the presently active mid-ocean rift system of the world, some of which are located within the exclusive economic zones of the United States, Canada, and many Pacific Isles.

The impact of the discoveries of massive marine polymetallic sulfides on the ocean floor during the past five years may leave a lasting effect on many segments of society. The United Nations' law of the sea negotiations are only now taking into account these recent scientific discoveries. Manganese nodules, whose distribution on the ocean floor has been relatively well mapped, represent a "two-dimensional," largely non-renewable deposit and may no longer be the prime mineral resource of the ocean floor. Their commercial importance may be overshadowed by the economic potential of the renewable polymetallic sulfide deposits or the non-renewable but cobalt-rich manganese crusts of Pacific Basin seamounts.

The technology of marine mining may take a dramatic turn from broad area "combing" of the seafloor for manganese nodules to precision spot-mining of polymetallic sulfide deposits with techniques that are currently under development (Figure 9). It may even be possible to utilize the energy available in higher temperature hydrothermal vent waters as a power source on the ocean floor. The relatively simple geochemical composition of the polymetallic sulfides, compared to that of manganese nodules, taken together with the availability of land-based plants currently processing polymetallic sulfides, may make mining seafloor polymetallic sulfides an even more attractive proposition in the future, although the market price of copper and zinc has to dramatically increase in order to make ocean mining of polymetallic sulfides an economic reality.

Large-volume, sediment-hosted polymetallic sulfides, such as those that form the largest zinc ore bodies found in British Columbia's Sullivan Mine (Hamilton 1983), have yet to be observed on the deep ocean floor, although the current deposition of sediment-hosted, polymetallic sulfides has been observed to take place in the Guymas Basin (Lonsdale et al. 1983). This is primarily due to the fact that the research emphasis to date has been focused upon mid-ocean ridge-crest processes. Possible sites of active polymetallic sulfide precipitation of the lower temperature sediment-hosted, zinc-rich variety may be located within active rifts of back-arc basins of the Western Pacific such as the Lau Basin, the North Fiji Basin, the Bismarck Sea, the Mariana Basin, and the Bonin-Ogasawara Trough. The marginal basins of the Western Pacific mark the new frontiers in the study of polymetallic sulfide deposition.

ORIGIN OF COBALT-RICH MANGANESE CRUST -- THE HAWAIIAN EEZ

In contrast to the rapidly forming ocean floor hydrothermally derived polymetallic sulfides, cobalt-rich

manganese crust accumulates by precipitation from ambient seawater at a very slow average rate of a few millimeters per million years on the surface of ancient submarine volcanic terrain. Thus ancient seamounts formed tens of millions of years ago on the ocean floor, probably along a now extinct mid-ocean ridge segment, are the best candidates for thick accumulated cobalt-rich manganese crust precipitation. One area of cobalt-rich manganese-crust-bearing seamounts is found along a chain located west of the island of Hawaii (Figure 16).

The accumulation of cobalt-rich ferromanganese crusts at a rate of a few millimeters per million years has preserved in the accumulation process the history of the chemistry of the world's oceans. The "tree ring" (Figure 17) microstructure of the crusts shows changes in the mineral composition as a function of age and water depth. The cobalt-rich ferromanganese crusts on the Hawaiian seamounts have experienced two traverses through time in the Pacific Ocean. The first traverse is a vertical one from shallow to deep water as a result of isostatic subsidence of the seamount surface with age and drift away from the spreading axis. The second traverse is from tropical waters to subtropical waters as a result of the seafloor spreading process. The seamounts such as Cross, located west of the island of Hawaii (Figure 18) have moved four thousand kilometers northwestwards from their origin south of the equator (Figure 19). These two fundamental processes have not as yet been taken into account in the discussion of the chemical and mineral variability in the cobalt-rich crusts. The detailed chemical and mineralogical stratigraphy of the crusts has as yet not been examined.

As may be expected, the early history of Cross Seamount was one of continuous construction through vulcanism (about 80 million years ago) near the crest of the early East Pacific Rise, followed by mass wasting and talus formation of the seamount surface. During the subsequent subsidence of the seamount as it migrated away from the ridge axis, initially northward for the first 40 million years (Figure 19), travel distance 4000 kilometers, the seamount surface began accumulating polymetallic crusts at an overall average rate of 2 millimeters per million years (Halbach et al. 1983).

The best preserved and undisturbed history of the accumulation is probably locked in the stratigraphy of accumulated crust or solid substrata such as that formed along stable ridges of the seamount surface (Figure 19). To date only shipboard dredge hauls of crusts from Cross and other seamounts in the Hawaiian area have been collected. These samples include enigmatic crust samples with apparent stratigraphic onlaps, suggesting that deposition on the sub-strata has been discontinuous as a result of the physical disturbance of the sub-strata. The stratification of the cobalt crusts has resulted apparently from changes in the chemistry of the precipitated crust following major geological and oceanographic events such as the phosphorite events associated with the expanded oxygen-depleted event of the mid-Miocene (Kennett 1982)

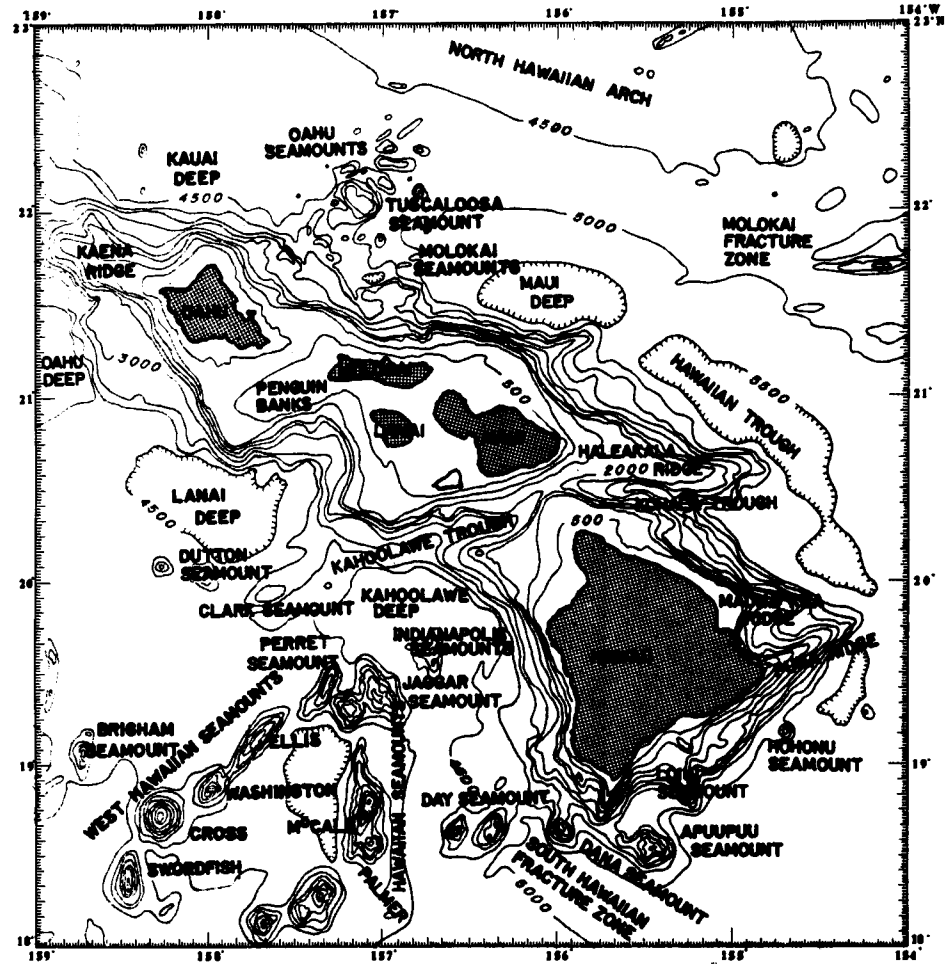


Figure 16. Bathymetric map of the southern end of the Hawaiian Islands chain, showing the locations of surrounding seamounts. (Contour interval is 500 meters).

Figure 17. Section of cobalt-rich manganese crust, from Mendelssohn Seamount, Hawaii. Darker crust represents cobalt-rich manganese crust accumulated on rock substrate (lighter color). This photograph was provided by Ms. Denys VonderHaar.

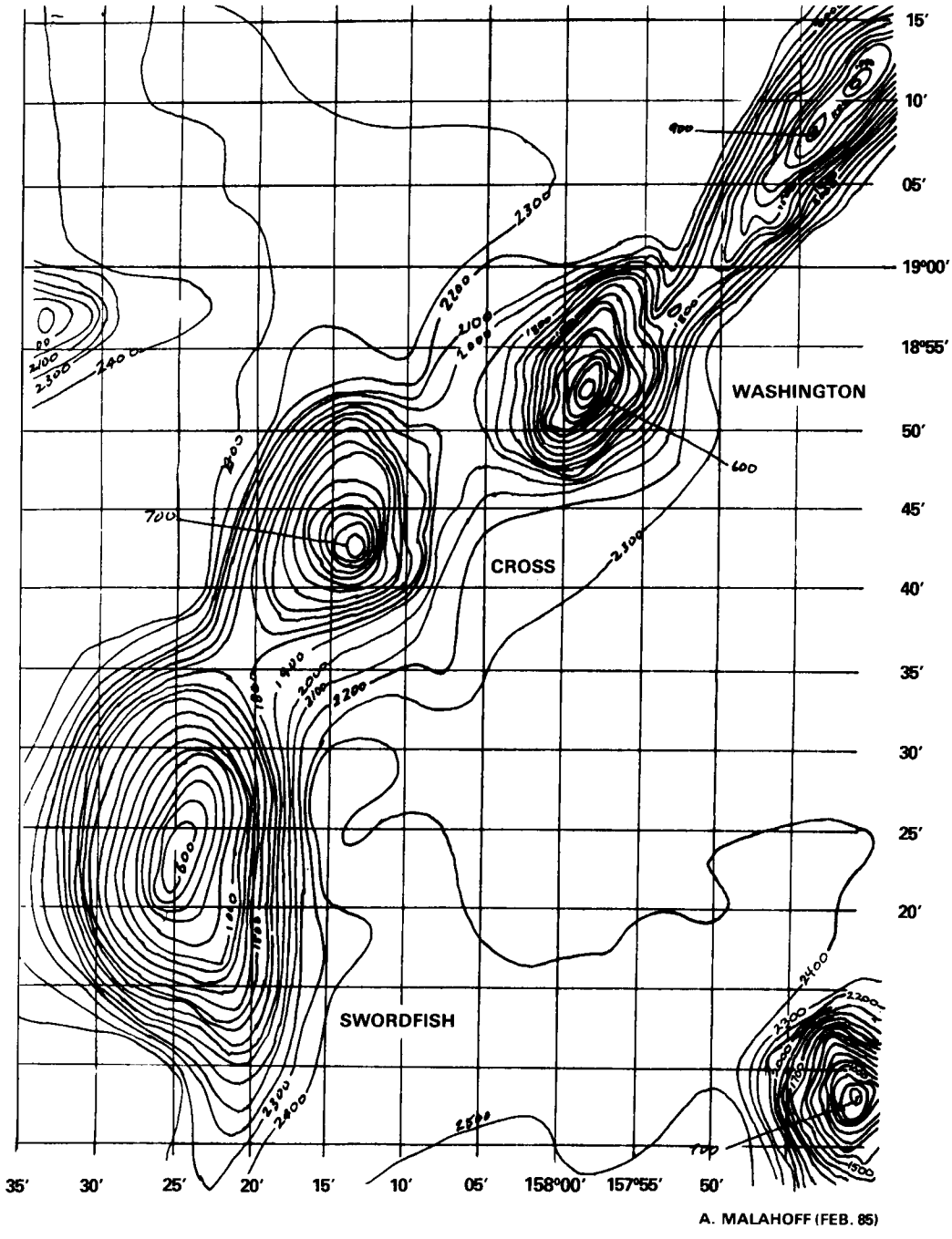


Figure 18. Detailed bathymetry of Cross Seamount (water depth in fathoms).

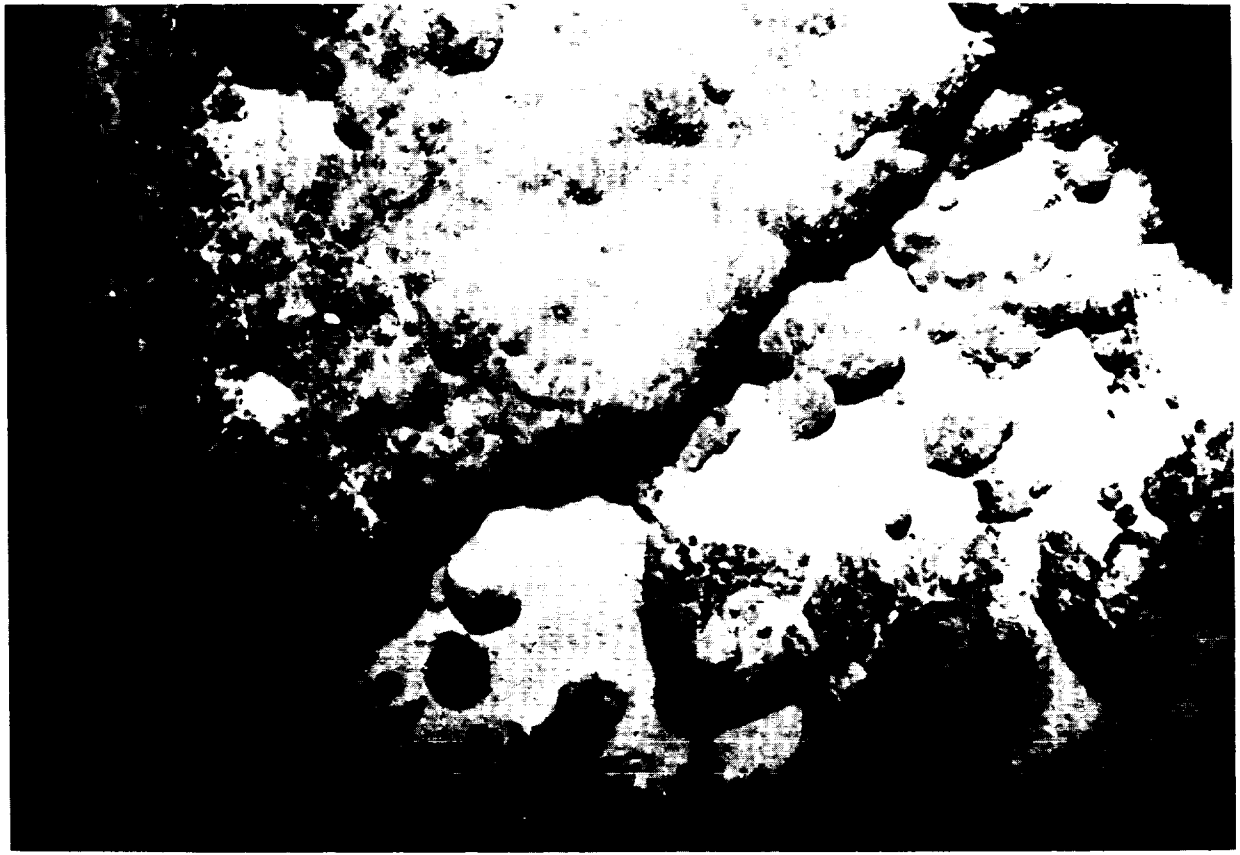


Figure 19. Photograph of the ocean floor, Cross Seamount, showing cobalt-rich manganese crust precipitated upon lobate lavas. Dimensions of the area shown are 1.5 by 2.5 meters.

During this period, apparently the productivity of the world ocean increased, giving rise to the vertical expansion of the oxygen minimum zone, creating anoxic zones in the underlying sediment which, combined with the increase in the phosphate content of the ocean, led to the precipitation of phosphorite.

During their eighty million year (M. Pringle, unpublished Potassium/Argon data) history (Figure 20) the Cross Seamount and other associated seamounts crossed the equatorial high productivity zone about 15 million years ago. This event is probably detectable in the stratigraphic record of the crust by a possible unconformity due to increased sedimentation rates and the expansion of the oxygen minimum zone (increased dissolution).

During the past five million years, Cross Seamount and the other Hawaiian seamounts migrated northeastwards from a water depth of 5500 meters at the base to a water depth of 4400 meters at the base. This apparent uplift of the seamounts has resulted from the portion of the oceanic crust upon which the Hawaiian seamounts are located, crossing the upwarped Hawaiian swell of the Hawaiian Hot Spot. This migration has resulted in the unusual juxtaposition of the Hawaiian seamounts (80 million years old) against the nearby currently active submarine volcano, Loihi.

Several reports on the geochemistry of ferromanganese crusts in seamount and plateau settings have recently appeared in the literature (Craig et al. 1982; Halbach et al. 1982, 1983; Halbach and Manheim 1984; Halbach and Puteanus 1984a, 1984b; Commeau et al. 1984; Aplin 1984; Aplin and Cronan 1985). Other than these reports, few investigations have been devoted exclusively to the study of ferromanganese crusts. The majority of work carried out to date has concentrated on the highly-studied abyssal ferromanganese nodules and has been extensively reviewed (Glasby 1977). Other studies which have resulted in the recovery of crusts have had primary goals of a geological or geophysical nature and have thus not concentrated on the geochemistry of the crusts (Hamilton 1956; Lonsdale et al. 1972; Natland 1976).

The high cobalt content of seamount deposits (approximately five times greater than in abyssal nodules), along with their abundance within the 200 mile exclusive economic zone of Hawaii (Figure 21) and several Pacific sovereign nations, have generated an interest in crusts as potential economic mineral deposits. The first intensive work on the distribution and mineralogy of cobalt crusts was conducted along the Hawaiian Ridge by McMurtry and De Carlo (personal communication). As a result of their preliminary analytical work, McMurtry and De Carlo found a distinct relationship between water depth and mineralogy of the crusts as follows:

1. That crusts from shallow waters (less than 1000 meters) contain more cobalt than deep water deposits.
2. That older crusts from the northwestern end of the Hawaiian Archipelago and from the Cretaceous off-axis seamounts are

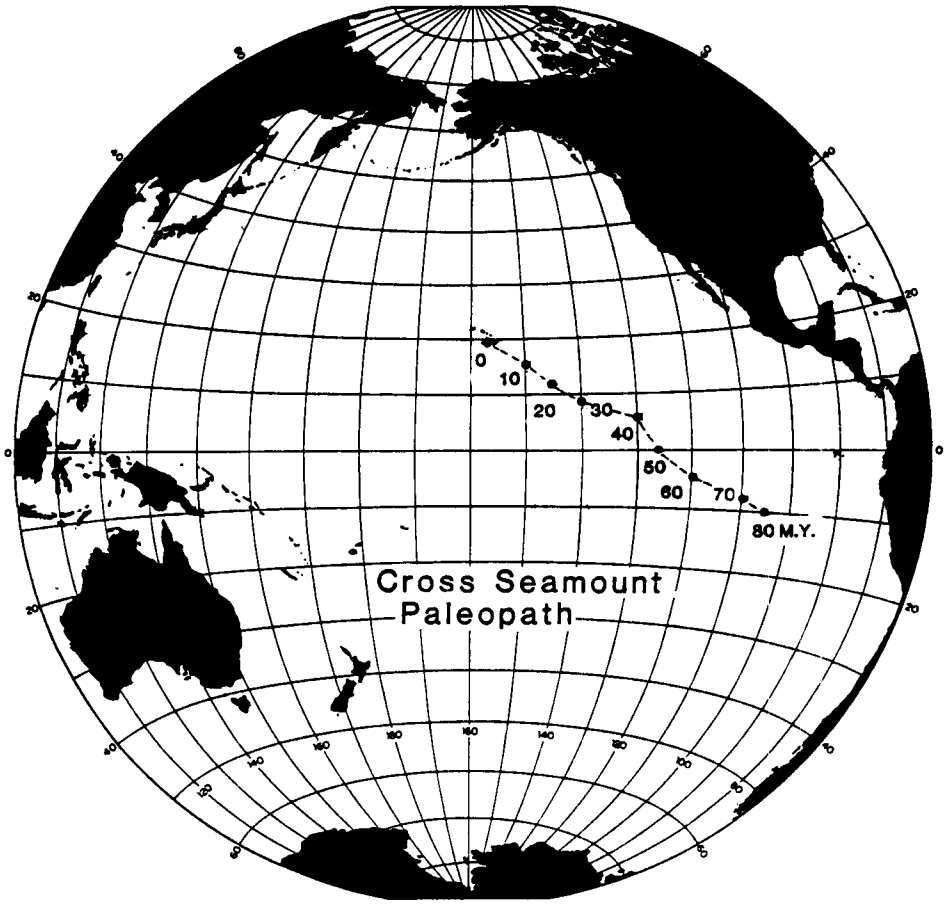


Figure 20. Migration path taken by Cross Seamount across the Pacific Ocean as a result of seafloor spreading since formation of the seamount 80 million years ago.

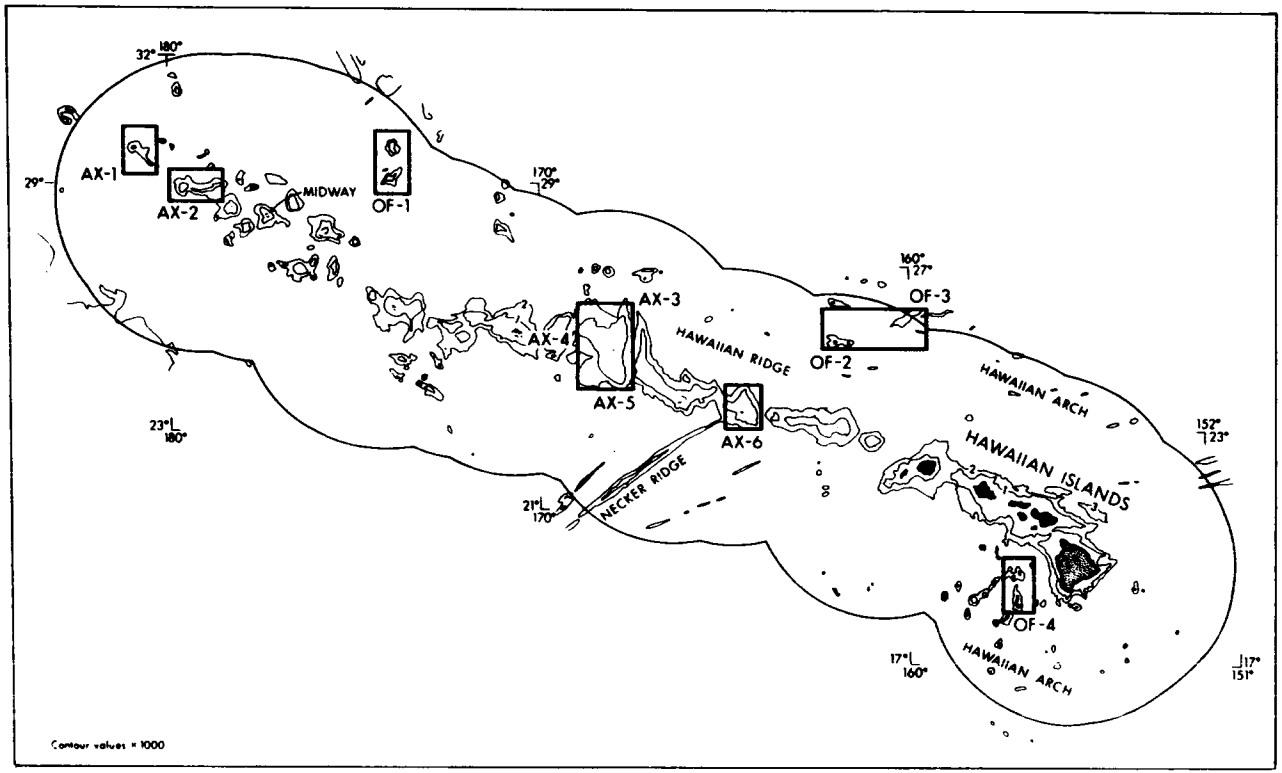


Figure 21. Delineation of the U.S. exclusive economic zone around the Hawaiian Islands. Rectangles indicate areas where cobalt-rich manganese crust has been sampled to date. OF-4 is located over the site of the Hawaiian Seamounts.

thicker and cobalt-enriched relative to younger, on-axis deposits (De Carlo et al, 1984).

Depth relations of cobalt, nickel, and manganese show an increase of crust concentration with decreasing water depth, whereas iron, silicon, and aluminum show either no or opposite trends with water depth. Manganese shows very high correlations to copper and nickel, as expected if the carrier phase is MnO_2, whereas iron shows the opposite trend of a diluent phase.

Within the study area of the Hawaiian EEZ, De Carlo et al (1985) have shown that the crusts may vary in thickness from a few millimeters to tens of centimeters depending upon the age and location of the dredged sample. The principal components of crust sampled within the Hawaiian EEZ include 40 percent of manganese oxide, 23 percent iron oxide, 1 to 2 percent cobalt oxide, 2 percent titanium oxide, 0.7 percent nickel oxide, and less than 1 percent of copper, zinc, and lead oxides. Silica together with alumina may account for up to 35 percent of the total. Of particular interest is the presence of platinum which may account for up to several parts per million of the composition.

Clearly, in the economic sense, cobalt is the driving constituent, since unlike the manganese nodules the cobalt-rich manganese crusts have relatively low proportions of nickel and copper.

ECONOMIC POTENTIAL OF COBALT-RICH MANGANESE CRUSTS

Of all ocean minerals the cobalt-rich manganese crusts have currently the greatest potential for early commercial development. Primarily this is due to the relatively high cobalt content of the crusts and their occurrence within the clearly-defined EEZ of the United States in Hawaii. There are potentially tens of thousands of seamounts in the Pacific Ocean that could be encrusted with the cobalt-rich manganese crust. However, those seamounts located within the Hawaiian area of the U.S. EEZ present both mineralogically and politically good sites for exploitation.

The drawbacks for immediate exploitation are, however, numerous. The drawbacks include a sparse research base, much less than that for polymetallic sulfides, highly variable terrain on the seamounts, and a high variation in the thicknesses of the crusts from one area to another on the seamount surface.

To date, because of the virtual lack of a continuous bottom photographic coverage of any of these deposits, virtually nothing is known of the variations in the morphology of the crusts as a function of depth, variability in the surface extent of the crustal cover, or the geology of the base strata (substrata). Furthermore, no systematic studies of the benthic biota associated with the manganese-cobalt crust deposits have been carried out. If the crusts are ever to be commercially

mined, it is the benthic fauna living on the crust at water depths from 500 to 3000 meters that will be largely affected by the mining operation. Included in the assemblages of fauna present at that depth are corals, some of which may be rare and commercially valuable species. Other benthic fauna such as sponges may preferentially colonize zones of crust formation. The relationship between faunal assemblages, slope of the terrain, nature of outcrops, geographic position on the seamounts, presence or absence of manganese crust, water circulation patterns, sedimentation patterns, and long or short term slope stability is unknown. An understanding of these basic patterns and factors is essential in order to technically round out the forthcoming environmental impact statement for the potential manganese crust deposits on the seamounts of the Hawaiian Island waters. Technologically the cobalt-rich manganese crusts are located at a favorably shallow depth range from 1000 to 3000 meters. The relatively shallow depth may lead to the development of less expensive mining apparatus than that required for the mining of manganese nodules at a water depth of 5000 to 6000 meters.

Detailed studies by Malahoff et al. (1985) on the distribution of benthic biota and cobalt-rich manganese crust on Cross Seamount showed that biota is sparse, that the few precious corals sampled and photographed on Cross Seamount are located at water depths less than 1000 meters, and that no exotic or specialized species were observed to be associated with the cobalt-rich manganese crusts. For instance, of the total of one quarter million square meters of the surface of Cross Seamount studied, only ten thousand individual biota were observed. The edifice of the seamount, however, is badly scarred by submarine landslides that have generated large chutes of angular talus, which is only thinly covered by crust. It is only the narrow, geologically stable, radiating ridges of the seamount edifice that are covered by cobalt crust a few centimeters thick. Clearly, at this stage of knowledge, a clear-cut economic potential of cobalt crust would be difficult to construct.

REFERENCES

Adamides, N. G. 1980. The form and environment of formation of the Kalawasos ore deposits -- Cyprus, In Proceedings of the 1979 International Ophiolite Symposium, Cypriot Ministry of Agriculture and Natural Resources' (pub.), Geol. Surv. Dept., Nicosia, pp. 117-127.

Aplin, A.C. 1984. Rare earth element geochemistry of Central Pacific ferromanganese encrustations. Earth and Plan. Sci. Lett. 71:13-22.

Aplin, A.C. and D. S. Cronan. 1985. Ferromanganese oxide deposits from the Central Pacific Ocean 1: Encrustations

from the Line Island Archipelago. Geochim. Cosmochim. Acta (In press).

Bäcker, H., Hot vents and metalliferous muds in the Red Sea, in T.S.S. Rao, ed., The Indian Ocean. Springer-Heidelberg . In press.

Ballard, R.D., J. Francheteau, T. Juteau, C. Rangan and W. Normark. 1981. East Pacific Rise at 21 degrees N: the volcanic, tectonic, and hydrothermal processes of the central axis. Earth and Plan. Sci. Lett. 55:1-10.

Ballard, R. D., R. T. Holcomb and T. H. van Andel. 1979. The Galapagos Rift at 86 degrees W: 3. Sheet flows, collapse pits, and lava lakes of the rift valley. Jour. of Geophys. Res. 84:5407-5422.

Ballard, R.D., T.H. van Andel and R. T. Holcomb. 1982. The Galapagos Rift at 86 degrees W: 5. Variations in volcanism, structure, and hydrothermal activity along a 30-kilometer segment of the rift valley. Jour. of Geophys. Res. 87:1149-1161.

Canadian-American Seamount Expedition. 1985. Hydrothermal vents on an axis seamount of the Juan de Fuca Ridge. Nature 313:212-214.

Commeau, R.F., A. Clark, C. Johnson, R. T. Manheim, P. J. Aruscavage and C. M. Lane. 1984. Ferromanganese crust resources in the Pacific and Atlantic oceans. Proceed. Oceans, Mar. Tech. Soc.. Washington, D.C., pp. 421-430.

Corliss, J. B., J. Dymond, L. I. Gordon, J. M. Edmond, R. P. Von Herzen, R. D. Ballard, K. Green, D. Williams, A. Bainbridge, K. Crane and T. H. van Andel. 1979. Submarine thermal springs on the Galapagos Rift. Science 203:1073-1083.

Craig, J. D., J. E. Andrews and M. A. Meylan. 1982. Ferromanganese deposits in the Hawaiian Archipelago. Marine Geology 45:127-157.

DeCarlo, E. H., G. M. McMurtry, K. H. Kim and C. L. Morgan. 1985. Geochemistry of ferromanganese crusts from the Hawaiian Archipelago exclusive economic zone. Hawaii Inst. Geophys. Tech. Rep. In preparation.

Delaney, J. R., R. E. McDuff and J. E. Lupton. 1984. Hydrothermal fluid temperatures of 400 degrees C on the Endeavour segment, northern Juan de Fuca. EOS Trans., Am. Geophys. Union 65:973. Abstract-Poster.

Desbruyeres, D. and L. Laubier. 1980. Alvinella pompejana ampheretidae aberrand des sources hydrothermales de la Ride Est-Pacifique. Oceanologica Acta 3, 3:267-274.

Desbruyeres, D., P. Crassous, J. Grassle, A. Khripounoff, D. Reyss, M. Rio and M. van Praet. 1982. Données ecologiques sur un nouveau site d'hydrothermalisme actif de la ride du Pacifique oriental. Comptes Rendus de l'Academie des Sciences Paris 295 (ser. III):489-494.

Edmond, J. and K. von Damm. 1983. Hot springs on the ocean floor. Scientific American vol. 248, no. 4, pp. 78-93.

Enright, J. J., W. A. Newman, R. R. Hessler and J. A. McGowan. 1981. Deep ocean hydrothermal vent communities. Nature 289:219-220.

Francheteau, J., H. D. Needham, P. Choukroune, T. Juteau, M. Seguret, R. D. Ballard, P. J. Fox, W. Normark, A. Carranza, D. Cordoba, J. Guerrero, C. Rangin, H. Bougault, P. Cambon and R. Hekinian. 1979. Massive deep-sea sulphide ore deposits discovered on the East Pacific Rise. Nature 277:523-528.

Glasby, G. P., ed. 1977. Marine Manganese Deposits. Elsevier Oceanography Series, 15, Amsterdam: Elsevier Scientific Publishing Company. 523 pages.

Grassle, J. F. 1982. The biology of hydrothermal vents: a short summary of recent findings. Marine Tech. Soc. Jour. vol. 16, no. 3, pp. 33-38.

Halbach, P. and F. T. Manheim. 1984. Potential of cobalt and other metals in ferromanganese crusts on seamounts of the Central Pacific Basin. Marine Mining 4:319-336.

Halbach, P. and D. Puteanus, 1984a, Cobalt-rich ferromanganese crusts from Central Pacific seamount regions, composition and formation, in Proceedings of 27th International Geological Congress 6: 321-346. Geology of Ocean Basins, VNU Science Press.

Halbach, P. and D. Puteanus. 1984b. Influence of the carbonate dissolution rate on the growth and composition of cobalt-rich ferromanganese crusts from Central Pacific seamount areas. Earth and Planet. Sci. Lett. 68:73-87.

Halbach, P., R. Giovanoli and D. von Borstel. 1982. Geochemical processes controlling the relationship between Co, Mn, and Fe in early diagenetic deep-sea nodules. Earth and Plan. Sci. Lett. 60:226-236.

Halbach, P., M. Segl, D. Puteanus and A. Mangini. 1983. Cofluxes and growth rates in ferromanganese deposits from Central Pacific seamount areas. Nature 304:716-719.

Hamilton, E. L. 1956. Sunken islands of the Mid-Pacific mountains. Geol. Soc. of Am., Memoir 64. 97 pages.

Hamilton, J. M., G. D. Delaney, R. L. Hanser and P. W. Ransom. 1983. Geology of the Sullivan Deposit, Kimberley, B. C., Canada. In D. F. Sangster ed., Sediment-hosted stratiform lead-zinc deposits. Victoria, B.C.: Min. Assoc. Canada. Pp. 31-83.

Hammond, S. R., J. S. Lee, A. Malahoff, R. Feely, and R. W. Embley. 1984. Discovery of high-temperature venting on the Endeavour segment of the Juan de Fuca Ridge. EOS Trans., Am. Geophys. Union vol. 65, no. 45, p. 1111.

Haymon, R. M. 1983. Growth history of hydrothermal black smoker chimneys. Nature 301:695-698.

Haymon, R. M., R. A. Koski and C. Sinclair. 1984. Fossils of hydrothermal vent worms from Cretaceous sulfide ores of the Samail Ophiolite, Oman. Science 223:1407-1409.

Hekinian, R. 1984. Undersea volcanoes. Scientific American, vol. 251, no. 1, pp. 46-55.

Hekinian, R., M. Fevrier, T. L. Bischoff, P. Picot and W. C. Shanks. 1980. Sulfide deposits from the East Pacific Rise near 21 degrees N. Science 207:1433-1444.

Hessler, R. R. and W. M. Smithey, Jr. 1983. The distribution and community structure of megafauna at the Galapagos Rift hydrothermal vents. In P. A. Rona et al., eds., Hydrothermal processes at seafloor spreading centers. New York: Plenum Press. Pp. 735-770.

Jones, M. L. 1981. Riftia pachyptila Jones: observations on the vestimentiferan worms from the Galapagos Rift, Science 213:333-336.

Kennett, J. P. 1982. Marine Geology. Prentice-Hall, Inc. 813 pages.

Knuckey, M. J., C. D. A. Comba and G. Riverin. 1985. The Millenbach Deposit, Noranda District, Quebec -- an update on structure, metal zoning and wall rock alteration. Geol. Assoc. of Canada Special Paper. In press.

Lonsdale, P. 1977. Clustering of suspension-feeding macrobenthos near abyssal hydrothermal vents at oceanic spreading centers. Deep-Sea Research 24: 857-863.

Lonsdale, P. and K. Becker. 1985. Hydrothermal plumes, hot springs, and conductive heat flow in the Southern Trough of Guaymas Basin. Earth and Plan. Sci. Lett.73:211-225.

Lonsdale, P., W. R. Normark and W. A. Newman. 1972. Sedimentation and erosion on Horizon Guyot. Geological Soc. of Am. Bulletin 83:289-316.

Lonsdale, P., R. Batiza and T. Simkin. 1982. Metallogenesis at seamounts on the East Pacific Rise. Marine Tech. Soc. Jour. vol. 16, no. 3, pp. 54-60.

Macdonald, K. C. 1982. Mid-ocean ridges: fine scale tectonic, volcanic and hydrothermal processes within the plate boundary. Ann. Rev. of Earth and Plan. Sci. 10:155-190.

Malahoff, A. 1982. A comparision of the massive submarine polymetallic sulfides of the Galapagos Rift with some continental deposits. Marine Tech. So. Jour. 16:39-45.

Malahoff, A., R. W. Embley, D. S. Cronan and R. Skirrow. 1983. The geological setting and chemistry of hydrothermal sulfides and associated deposits from the Galapagos Rift at 86 degrees W. Marine Mining, vol. 4, no. 1, pp. 123-137.

Malahoff, A., R. Grigg, D. VonderHaar, K. Kelly and A. Arquit. 1985. Mass wasting and manganese crust growth on Cross Seamount, Hawaii. EOS Trans., Am. Geophys. Un. vol. 66, no. 46, p. 1083. Abstract.

Massoth, G. J., E. T. Baker, R. A. Feely and H. C. Curl. 1984. Hydrothermal signals away from the Southern Juan de Fuca Ridge. EOS Trans., Am. Geophys. Union, vol. 65, no. 45, p. 1112.

McMurtry, G. M., D. Epp and D. M. Karl. 1983. Project Pele: studies of the hydrology, chemistry and microbiology of geothermal systems on the submarine rift zones of the Hawaiian chain. Sea Grant Quarterly, vol. 5, no. 4, pp. 1-8, or Hawaii Inst. of Geophys. 1982-1983 Annual Report, pp. 27-31.

McMurtry, G. M., A. Malahoff, R. A. Feely and G. J. Massoth. 1984. Geology and chemistry of the hydrothermal nontronite deposits from the Juan de Fuca Ridge. EOS Trans., Am. Geophys. Un. 65:1112.

Merge Group. 1984. Regional setting and local character of hydrothermal field/sulfide deposit on the Endeavour segment of the Juan de Fuca Ridge. EOS Trans., Am. Geophys. Union, vol. 65, no. 45, p. 1111. Abstract.

Natland, J. H. 1976. Petrology of volcanic rocks dredged from seamounts in the Line Islands: Init. Repts. DSDP 33:749-778.

Normark, W. R., J. E. Lupton, J. W. Murray, J. R. Delaney, H. P. Johnston, R. A. Koski, D. A. Clague, J. L. Morton. 1982. Polymetallic sulfide deposits and water-columns of active hydrothermal vents on the Southern Juan de Fuca Ridge. Marine Tech. Soc. Jour. vol. 6, no. 3, pp. 46-53.

Rau, G. H. 1981. Hydrothermal vent clams and tube worms 13C/12C: further evidence of non-photosynthetic food sources. Science 213:338-339.

Riddihough, R. 1983. Poles of motion, Gorda and Juan de Fuca Ridges. Special Pub. Map Series, open file 83-6, Pacific Geoscience Center, Earth Physics Branch, Energy, Mines and Resources, Canada.

Rio, M. and M. Roux. 1984. Reconstruction du profil de croissance et estimation de l'age maximum atteint par le Bivalve Calyptogena magnifica du site hydrothermal de 21 degrees N (dorsale du Pacific oriental). Comptes rendus de l'Academie des Sciences, Paris 299 (ser. II): 167-172.

Rona, P., K. Bostrom, L. Widenfalk, D. S. Cronan and W. J. Jenkins. 1984. Asymmetric hydrothermal activity and tectonics of the Mid-Atlantic Ridge 11 degrees to 26 degrees N. EOS Trans., Am. Geophys. Union vol. 65, no. 45, p. 974. Abstract.

Roux, M., M. Rio, and E. Fatton. 1985. Clam growth and thermal spring activity recorded by shells and 21 degrees N. In M. L. Jones, ed., The hydrothermal vents of the Eastern Pacific: an overview. Bull. of the Biol. Soc. of Washington, No. 6. In press.

Scott, S. D., T. J. Barrett, M. Hannington, R. L. Chase, Y. Fouquet, K. Juniper. 1984. Tectonic framework and sulfide deposits of the Southern Explorer Ridge, Northeastern Pacific Ocean. EOS Trans., Am. Geophys. Union 65:1111. Abstract.

Spence, D., A. F. De Rosen-Spence. 1975. The place of sulfide mineralization in the volcanic sequence at Noranda, Quebec. Economic Geology 70:90-101.

Spiess, F. N., K. C. Macdonald, T. Atwater, R. Ballard, A. Carranza, D. Cordoba, C. Cox, V. M. Diaz Garcia, J. Francheteau, J. Guerrero, B. Luyendyk, J. D. Macdougall, S. Miller, W. Normark, J. Orcutt and C. Rangin. 1980. East Pacific Rise: hot springs and geophysical experiments. Science 207:1421-1433.

Tunnicliffe, V. 1983a. Life at the top: hydrothermal vent communities on Axial Seamount, Juan de Fuca Ridge (46 degrees N). EOS Trans., Am. Geophys. Union 64:1017. Abstract.

Tunnicliffe, V. 1983b. New hot vents in NE Pacific. EOS Trans., Am. Geophys. Union 64:945.

Tunnicliffe, V. and S. K. Juniper. 1983. New hydrothermal vent discovery in the northeast Pacific: tube-worm bioherms and bacterial glue. American Zoologist 23:966. Abstract.

Tunnicliffe, V., S. K. Juniper and M. E. de Burgh. 1985. The hydrothermal vent community on Axial Seamount, Juan de Fuca Ridge. In M. L. Jones, ed., The Hydrothermal Vents of the Eastern Pacific: An Overview. Bull. of the Biol. Soc. of Washington, No. 6. In press.

COMPARATIVE PACIFIC BASIN LAND LAWS AFFECTING MINERAL PROCESSING (PLANTS)

David L. Callies
William S. Richardson School of Law
University of Hawaii at Manoa

INTRODUCTION AND STUDY SYNOPSIS

Through the Sea Grant College of the University of Hawaii, the National Oceanic and Atmospheric Agency of the U.S. Department of Commerce (Ocean Mining and Minerals Division) supported in 1983-1984 an investigation into the land, planning and environmental laws and the economic/business climate affecting the location and operation of a manganese nodules processing plant in six Pacific Basin/Rim countries: Australia (Queensland), Canada (British Columbia), Ecuador, Fiji, and the Philippines. Following a literature search and preliminary report and analysis on each country, a senior member of the project team visited each country to interview public and private sector experts in land use and environmental law, and in business and economics.

The processing plant "model" we used as our hypothetical basis was developed by Mr. Ray Jenkins of Hawaii, an engineer and consultant with substantial credentials in the minerals processing field, having operated or helped operate and develop processing plants in several international locations. We postulated a manganese nodule processing plant located at an existing or easily developable port facility requiring approximately 250 hectares (440 if tailings are disposed of on land) employing up to 1500 persons and using either a leach (cuprion or sulfuric acid) or leach and smelting process.

We chose the countries from a list of several dozen with the following criteria in mind:

1. Geographical diversity.
2. Institutional and legal system diversity.
3. "Real-world" potential for such a processing plant (a theoretically suitable site and no known objections to such a plant).

Based upon a preliminary analysis of the laws of the six subject countries, a series of commonalities appear which will confront any consortium proposing to locate an ocean minerals processing plant of any size in Pacific Rim/Basin countries. Moreover, most countries developed one or more special techniques to accommodate large and unusual projects of this size. What follows are selected examples of these commonalities and special techniques.

SUMMARY OF COMMONALITIES

Based upon our survey of literature, correspondence, examination of selected laws and conferences, and interviews with private and public sector experts in the six subject countries, the following commonalities emerged:

Environmental Impact Analysis

Virtually all countries surveyed have a relatively sophisticated environmental impact analysis program, either at the national or regional level of government, which is either provided by statute or by means of formal regulatory review. However, in common with the U.S. system (NEPA) such an analysis is largely informational only, and has no formal effect on the development approval process. On the other hand, most "approving" agencies are represented in the environmental impact assessment process, therefore making such approvals unlikely should the process uncover the probability of severe environmental consequences of the proposed development.

Foreign Ownership/Investment Requirements

Virtually all nations surveyed contained statutory schemes which require special permits either for the ownership (and, to a lesser extent, use) of land by non-nationals, or investment of resources for business purposes by non-nationals, or both. The more economically aggressive of the subject countries hastened to add that the agencies responsible for the administration of such laws provided a service for prospective foreign investment rather than a stumbling block to investment of the kind contemplated for ocean minerals processing.

Special Process for Large Projects

A bare majority of the countries surveyed used an extraordinary process of permitting for large industrial projects such as that posed by our hypothetical. In most cases, such processes are administered at the regional or national (as opposed to the local, which is the traditional point of administration of land use and some environmental laws in the United States) level. Indeed, most such permit processes override or take precedence over local land use and planning law regulations, where applicable.

Local Land Use Planning Law

As a corollary to the above, most subject countries have a well-developed system of local land use plans and controls. However, these are primarily evolved to deal with urban problems and at a scale substantially smaller than that posed by our hypothetical ocean minerals processing plant. Therefore, to the extent applicable to the sites examined, these local land laws were largely inapplicable or superseded by regional and/or national land use schemes.

Application of National Mining Laws

In virtually every country there are specific laws which govern the extraction and processing of minerals. However, virtually none of these laws apply to the processing of minerals alone, most particularly if the extracted mineral to be processed comes from outside the country. In only one country was it suggested that such laws applied in any event.

Laws Relating to National Defense

In half the subject countries, some level of military approval at the national level would be necessary for such an ocean minerals processing plant, not because of the strategic nature of the minerals, but because the location -- coastal -- corresponded with a national boundary which would clearly make any such major installation of potential military significance.

Port Facilities Laws

In most subject countries, there were specific permissions required under a statutory legal regime applicable only to ports. However, in half of these, the regime is interpreted to apply only to existing ports, which were in all cases too crowded to provide the land necessary for the scale of plant hypothesized by our study.

Lead Agency Coordination

Virtually every country has, officially or unofficially, a "lead agency" to shepherd complete projects through the development process, whether it be an executive agency (like the Premier's Department and Coordination General in Queensland, Australia), a financial review and planning agency like the Foreign Investment Review Board in Canada (Federal level), the Board of Investment in the Philippines, or an umbrella review agency like INDERENA in Colombia.

SUMMARY/OUTLINE OF SPECIAL TECHNIQUES AND MECHANISMS APPLICABLE TO MAJOR FACILITIES SUCH AS OCEAN MINERAL PROCESSING

The Franchise Agreement, Queensland, Australia

One of three processes by which large industrial/commercial developments may be approved in Queensland (the others being through "normal" local government channels and "prescribed" development), the Franchise Agreement is essentially a legislatively-enacted development contract negotiated between a developer and the Queensland Premier's Department covering the economic, fiscal, land use, and technological (infrastructure) aspects of economically significant and/or extremely large projects. Environmental restrictions are largely self-contained, and local land use permitting requirements are streamlined or superseded. The Franchise Agreement is passed by, and thus becomes an Act of, the Queensland Parliament. As such, it is legally superior to all local government law and probably takes precedence over general Parliamentary laws with which it may conflict. The Agreement may also provide for a

series of subcontracts on specific topics like harbor usage, power and water supply, which will have less than Act of Parliament legal status. Moreoever, it may be amended by subsequent general law, clauses to the contrary within it notwithstanding (Commonwealth Aluminum Corp., Ltd. v. Attorney General, (1974 Queensland No. 1957)), and in this respect differs from developing agreements in, for example, California and Illinois.

Native Land Inalienable Fee Ownership: Fiji

Nearly 90 percent of the land in Fiji is owned in fee by native Fijians in traditional landholding units resembling family groupings or tribes. The "agent" for these landholding units for land use transactions outside the unit is a Native Lands Trust Board which has authority by statute (Native Lands Trust Act) to lease (but to convey no greater interest) native land to non-native developers provided the land is not in a native reserve, occupied by native Fijians, or required by native Fijians for maintenance and support. Most undeveloped land in Fiji is native land under the jurisdiction of the Native Lands Trust Board which imposes the restrictions, if any, upon commercial or industrial development.

Expansion of Laws Passed for One Purpose to Cover a New and Unrelated Problem: The British Columbia Fisheries Act

Passed early in B.C.'s history to protect critical fish habitats so important to the province's economy then, the Fisheries Act requires a special review and permit for any activity with the potential for affecting fisheries. As virtually no coastal development of any significance is likely to have no effect on such fisheries, the view conducted by the provincial Department of Fisheries is critical for any ocean mineral processing project. Indeed, such reviews and permits have been requested of the several projects currently operating in B.C.

Umbrella Agency for Natural Resource Activities: Colombia's INDERENA

Created by relatively recent legislation, INDERENA is a clearing house for all natural resource activities in Colombia, with a fair amount of discretion in approving projects. INDERENA is composed in part of representatives of various agencies with statutory responsibility for natural resource development.

Agency Expansion to Encompass Commercial Development Permitting: Philippines, Human Settlements Commission

Originally formed to deal with system of settlement/housing distribution, the Human Settlements Commission is responsible for the approval of fourteen municipally-drafted plans in accordance with general statutory guidelines. Such plans contain areas designated for commercial and industrial development. Once approved by the Commission, local zoning laws

are passed by the municipalities which must conform to the Commission-approved (or modified) plan. Such plans also may contain designated cities for projects of National Significance.

A Significant Omission: Coastal Zone Protection

We discovered no effective coastal zone protection legislation comparable to the U.S. CZM program, nor coastal acquisition program on the model of Great Britain's Operation Neptune and Heritage Coast acquisitions. The closest thing to such a program was the Australian national government's Great Barrier Reef Protection Act which is really a piece of special area protection legislation that just happens to protect a coastal resource, similar to, for example, New York's Adirondack Park Act, Great Britain's national parks legislation, and France's special reserve legislation protective of the areas like the Camargue.

JURISDICTIONAL ISSUES AFFECTING THE DEVELOPMENT OF NEW OCEAN MINERAL RESOURCES: NECESSARY REGIMES

Myron H. Nordquist
Herrick and Smith
Washington, D.C.

I was recently asked by several commercial entities interested in deep seabed mining to give them an evaluation of the options available. Today I suggest we put on the hat of a prospective deep seabed investor and look at three broad options in light of several major considerations. Earlier speakers have explained about the United Nations system and the reciprocating states system. The presentation that led off this panel indicated that there is activity to look at within the exclusive economic zone. Indeed, for the entities that I am advising, the first baseline interest is in deep seabed mining within the EEZ of the United States. It is probably worth bearing in mind that about 40 percent of the ocean is, in fact, now covered by EEZs or accepted as national continental margin beyond that. It may also be worth recalling that if there were a plundering of the "common heritage" it was by those states that sold the 200-mile limit, sold the archipelagic regime, and sold the definitional provisions in the Convention that are designed to insure that every drop of oil goes to the coastal state. When you hear sanctimonious statements about protection of the common heritage, it may be well to recall who sold it out. In any case, there are three issues that I would like to discuss: the first has to do with title, the second has to do with control, and the third with risk.

With respect to title under the UN regime, if you are a party you should be okay unless a conflict develops with a non-party. Some nations, perhaps the Japanese, perhaps the West Germans, are covering their bet by trying to get recognition from the UN at the same time they are getting it from the reciprocating states. For a non-party, or a non-signatory, e.g. the United States, it is very difficult to get good title under the UN regime. About the only option for a company would be to pick a country of convenience and try to use that party status of that country.

Under the reciprocating states regime, the title is good vis-a-vis the other parties, but conflicts are predictable. Although the USSR's bid has not been opened, I am willing to speculate that it will overlap with all the known or strongly suspected claim areas of the reciprocating states in the Pacific. Non-parties to the reciprocating states regime have no obligations to recognize the reciprocal rights. Perhaps some might, but it is rather unlikely if they are dedicated to the UN system. Thus, the reciprocating states regime is not too happy a legal setting in that there is a big cloud on the title. Over one hundred countries will not recognize the validity of the rights. As Alex Krem may point out, this makes bankers rather nervous.

Under the exclusive economic zone, the title is -- at least out to the 200-mile zone -- internationally undisputed, assuming that there are no delimitation issues that could arise with islands or submerged features. But domestically in the United States, there are some uncertainties. The main purpose of the EEZ Proclamation insofar as hard minerals in the United States are concerned is that it picked up the area that is beyond the outer continental shelf and out to 200 miles. Now, insofar as the international right to that area, there would be no controversy about the United States Government giving out a good title to a resource there. Domestically, however, that regime has already been challenged. It is predictable that if the OCS Lands Act was used as the legal vehicle for giving out a lease right now, the environmental community would file a lawsuit. Congress has to sort out jurisdiction over the area that is beyond the outer continental shelf jurisdiction as Congress intended and out to 200 miles. Moreover, Congress certainly has to deal with the regime applicable beyond the 200-mile zone on the continental margin.

Turning to a second major issue, that of control, which might be paraphrased as "Who's the boss," under the UN system, the concern is that the international authority is responsive to a UN constituency. The United States is not a signatory and certainly there is nothing to suggest that it is going to become a party in the near term. This means that U.S. investors are in the circumstance where they look at the UN system and compare it against the systems in which they commonly invest in other developing countries. One could say, from a control point of view, is it any worse for an investor to deal with an unstable developing country or to deal with the UN system? My view is that most of the companies would much prefer to deal on a bilateral basis. They seem to lack confidence in being able to control the negotiations as well. When there is a negotiation with a country one on one, typically there are hard and immediate economic interests at stake and, accordingly, pragmatic deals can be cut that have a way of sticking. Unfortunately, with the United Nations arrangement, no country is so deeply hurt or helped by deep seabed mining that there can be real protection based on pragmatic considerations. For an investor, there is much more posturing and much more injection of political principles in UN negotiations. Ironically, I think that the UN probably has a system that if there was investment, it might well work out. I am not personally so pessimistic about it. But I do not see the major companies, when they have other more attractive alternatives, acceding to that kind of multilateral control. I think that the investors tend to go where the rules and regulations are more predictable.

Under the reciprocating states arrangement, we do have a regulatory regime that was specifically tailored to deep seabed mining. Indeed, that regime was very carefully negotiated with the hard minerals companies themselves. Some say it was almost a "sweetheart" regime that was created. Control, in this instance, is lodged in the lead agency, which is NOAA. NOAA is

very keen to have the program go. There is strong support from the White House and the State Department. The U.S. may be motivated to justify the decision not to sign the Treaty as much as anything else. But under the reciprocating states regime, the major issue of control is fairly satisfactory.

Under the EEZ regime, at least in the United States, the major issue of control may or may not be better for investment than under the reciprocating states regime. As noted, Congress has yet to lay out the detailed laws. While the signs are positive, until they are laid out, there is always reason to be concerned. We do know that when President Reagan came into office one of his prime objectives was to gain access to strategic minerals. Perhaps the major shift in the U.S. attitude on the LOS Convention was in the Department of Defense when the concern with access to strategic minerals seemed to rise above concern for navigation and overflight. This was a very dramatic but discernable shift in policy with very important consequences. But, in any event, there is a well-known Reagan Administration policy to foster self-sufficiency on strategic minerals. That attitude carries over into the Department of Interior, certainly to Secretary Clark. There is a strong Administration support for getting the kinds of systems in place, rules and regulations under the EEZ, that would very much encourage investment. Some of the actions by the Department of Interior to date are very laudable. The mapping program that has recently been concluded under the GLORIA system has added a great deal to the knowledge of the West Coast EEZ. Results mentioned off Hawaii and in the Canadian EEZ give investors no reasons to be discouraged. On the other hand, Interior has tried to stretch its oil and gas authorization into being a hard minerals authorization. While there is probably enough general language in their OCS statutes to support their position off the mainland, Interior probably should go to Congress and ask for authorization to cover the territories and islands.

With respect to the third element, that of financial risk, certainly the perception is that under the UN regime the system would be very burdensome. The production limits on minerals tend not to warm the hearts of the free marketeers; the mandatory transfer of technology to the Enterprise and the requirement to identify the sites that would be made available to the Enterprise are not too appealing. These requirements certainly add costs. The companies seem to be willing to compete with one another, at least they say they do, but they worry about an Enterprise where there seems to be an inherent conflict of interest. In other words, would the Authority not really have an incentive to give financial breaks and special considerations to its own entity vis-a-vis them?

Under the reciprocating states regime, again, much of the same comments that were made about control would apply. It is a regime that was set up with low up-front costs, the size and configuration of the mine sites were made with the specific application of manganese nodule mining in mind, there is long

enough duration, etc. It is a good regime from a financial risk point of view. Unfortunately it still seems to have that fatal flaw of not being recognized by others in sufficient numbers.

With respect to the EEZ, the U.S. is still considering what it is going to do. Even if it were to proceed under the OCS Lands Act, Section 8 (k) requires that the leases be awarded on the basis of the highest cash bonuses. This is a major concern of the mining industry. There is an oil and gas mentality at Interior based on quite different criteria such as a known resource and a developed technology. In the case of the hard minerals, it is very difficult to know what the market value of the lease is, and certainly there is a pioneer status, maybe a pre-pioneer status to consider. It would probably be a case where the government would be asked by the industry to share some of the risk rather than expecting industry to put up front money on the table. There may be a way for Interior to twist around 8 (k), but it gets back to the fundamental point that you really do not have in place a hard minerals regime for the U.S. EEZ. Congress will cooperate in developing such a regime. But Interior has to be a little bit more aggressive in the policy area in the same degree they have been in the technical area. Certainly their attitude has been outstanding. There is an on-going concern in the industry about the balance between environmental protection and development. That is, so far there seems to have been a disproportionate amount of attention put on the environmental aspects and not enough on the real definition of attractive mine sites. But again, across the board, Interior has been very responsive and shown a lot of flexibility.

We are not supposed to speculate at meetings like this. But I would like to end with some speculations anyway, maybe they can be called predictions. At least it is my present opinion that the first commercial deep seabed mining will not occur beyond national jurisdiction but will occur in the EEZ of a stable government such as the United States and that it will be undertaken by an international consortium. I believe the site will probably be in the Pacific, in water depths that are a third or less of those we have become accustomed to thinking about for manganese nodule mining. I doubt that the resource will be manganese nodules but probably the concentrated surface deposits, the crusts, and that this mining will probably occur before 1995, the predicted start-up date that you have heard about for manganese nodule mining. Probably the mining will be for a combination of minerals that has not yet been publicly stated. I would also say that the technology is not going to be a major impediment. I think that the transport and the processing also are likely to be very conventional. Thus, I would like to speculate in a positive way that in that 40 percent of the ocean that has been made available for deep seabed mining under the Law of the Sea Convention, the prospect for mining in the intermediate term is excellent.

FINANCING OCEAN MINERAL DEVELOPMENTS: FEASIBLE UNDER WHAT TERMS?

Alexander J. Krem
Vice President
Investment Banking Group
Bank of America

INTRODUCTION

What I would like to do today is review the economic background in which UNCLOS III was developed and the current economic situation in the mining industry -- not because this audience is unfamiliar with this situation, but to provide a context for my subsequent remarks. Thereafter, I will review the provisions of the deep seabed mining regime as it relates to financing. Finally, I will discuss financing in general and as it relates to opportunities in the deep sea.

BACKGROUND

UNCLOS III in the Environment of the 1960s

The 1960s were heady times. Worldwide growth and investment were increasing steadily and without interruption. The postwar economy, which had suffered relatively minor recessions, continued to expand with a healthy vigor. Worldwide, investment continued to grow.

This expansionary period produced steadily rising prices for metals, reflecting an increased demand from all sectors. As demand increased, a perceived scarcity of supplies developed as resources were used. During this period, it was common to talk about exhausting supplies of minerals within a generation or two. In such an environment, the deep sea and its tremendous mineral resources seemed a logical area for development.

Significant structural changes to occur in the 1970s would change all this. However, as UNCLOS III was being negotiated, the long-term significance of the events of the 1970s was not yet clear, and work continued against the backdrop of scarce and rapidly depleting resources and optimism for continued global expansion.

The 1970s

We are emerging from a decade of shock and stress unlike any known in modern peace time, the results of which were not contemplated by those many able and hard-working people who drafted the conventions of UNCLOS III.

The 1973 oil shock followed shortly after President Richard Nixon's announcement that the U.S. dollar would no longer be linked to gold. These two shocks were followed again in 1979 by the second oil shock.

The effects of these events were staggering. As the price of oil skyrocketed, the value of other commodities fell in

accordance with obscure economic laws. The long established parity of currency vanished as the Bretton Woods agreement collapsed.

The result was raging inflation. Major cost overruns occurred in most projects, both public and private. (The Hong Kong subway is the only notable exception). A long and peaceful era of stable prices, foreign exchange rates, and expectations was destroyed, and with it the certainty necessary for businessmen to plan, to invest, to conduct their businesses with confidence.

The same increase in prices which made the oil producers rich made the Third World desperately poor. These nations turned to the West to borrow money to meet their balance of payments, to continue their ambitious investment plans made and initiated during the halcyon days of the 1960s and early 1970s. For the first time in modern history, commercial banks were lending to Third World nations. Prior to this time, Third World nations borrowed not from the commercial banks but from the governments of the developed world.

Gone is the euphoria of the post-war period. The cold shower of the 1970s is still well remembered. A new sense of realism has emerged in the 1980s in which we cannot lose the haunting fear that the runaway inflation and massive dislocations of the 1970s may reappear. Worse, we are teetering on a tightrope between rekindling the ravaging inflation of the 1970s and plunging into a period of massive deflation and depression. The unnatural strength of the U.S. dollar against foreign currencies today in the face of the massive borrowings by the U.S. Treasury presents a paradoxical enigma which is all the more troubling. Increasing pressure to raise trade barriers and new calls for national protectionism add to the spectre.

The Mining Industry

In General

Mining has traditionally been a highly capital-intensive industry with a long investment payback period and is thereby vulnerable to troughs in economic cycles.

In this context major mining corporations are determined to reduce their risks. They are doing this in several ways:

First, cross-border investments are limited. If investing abroad is necessary, agreements are made with foreign governments which are considered friendly and stable. Agreements involving a wide variety of foreign nations are certainly avoided.

Second, large projects are avoided. With fingers still burning from the cost overruns of the 1970s, multinational corporations prefer many small projects to a few massive ones. In the 1980s small is beautiful.

Third, more project sponsors are forming joint ventures. This, again, enables each of the participants to reduce capital outlay and share commercial risks with venture partners.

Fourth, lower cost methods of exploring, producing, or recycling metals are being developed. These new technologies include low (or lower) energy input refining, smelting, reducing, etc. Because the costs of developing new mines are so high, we can expect more and more research and development into these alternative methods of producing metal.

World Metal Prices

World metal prices are at a low level. There have been no significant price increases since 1979. Despite the rather healthy recovery within the U.S. and Pacific Basin in the last several years, metal producers have not enjoyed any of that benefit. This is because the recovery was not smokestack lead. Furthermore, it was not worldwide.

Today, cost of producing major metals exceeds the market price for them. The average market price for nickel today is $2.30 per ton. Cost of producing nickel, excluding debt service, is in excess of $3.50 per ton. It is tough making money producing nickel. The market price of copper is around 62 cents, yet a U.S. producer needs 90 cents to break even, before debt service.

In the face of this, substitution and recycling are hallmarks of the 1980s. New, less expensive products are substituted for traditional ones. Plastics and ceramics are being used widely in cars in place of metals. PVC pipes have replaced pipes made of traditional materials. In cans, tin-free steel and aluminum have taken the place of tin. Plastic often takes the place of copper and lead. Lead-free gas has further hurt lead prices. Recycling is now economically feasible. Copper, aluminum, and steel are largely recycled.

The Third World nations, staggering under breathtaking foreign debt burdens, are increasing their production of ores and metals. This overproduction in a period of oversupply depresses metal prices further.

SIGNIFICANT PROVISIONS OF UNCLOS III

When UNCLOS III convened, deep seabed resources were the most significant issue before it. Throughout the more than eight long years that UNCLOS III met, issues surrounding seabed rights and regulations proved most intractable.

Significant provisions (from the point of view of my analysis) of the Seabed Mining Convention of 1982 can be summarized as follows:

Creation of Sea-bed Authority

The Sea-bed Authority was created with full and exclusive control over "the Area," that is, the deep sea. State activities in the area were to be carried out for the benefit of mankind as a whole, "taking into particular consideration the interests and needs of developing states and of peoples who have not attained full independence or other self-governing status recognized by the United Nations ... " [1]. In addition to

control over the deep seabed, "the Area," the Sea-bed Authority was also to receive payments or contributions in kind by coastal states for the exploitation of mineral resources on their own continental shelves beyond 200 miles [2].

Transfer of Technology

Article 144 of the Convention requires the Sea-bed Authority "(a) to acquire technology and scientific knowledge relating to activities in the area; and (b) to promote and encourage the transfer to developing states of such technology and scientific knowledge so that all States Parties benefit therefrom" [3]. Furthermore, the Convention contains a general mandate calling for the effective participation of developing states in the Area [4].

Production Controls

The Sea-bed Authority is charged with an express obligation to control mining activities as necessary to stabilize the market price for the same metals mined by land-based producers [5]. The amount a mine may produce would be limited by a ceiling, a formula linking seabed mineral production to land-based nickel production. These restraints would prevent an oversupply of minerals which could jeopardize the land-based producers, especially those in the Third World.

The Creation of the Enterprise

The Sea-bed Authority would establish the Enterprise, authorized to mine the deep seabed on behalf of the Sea-bed Authority. The Enterprise would have first choice of sites between the two submitted by any applicant for mining. Additionally, an applicant would have to agree to divulge its technology to the Enterprise if that technology were not readily available on the open market. Furthermore, no technology would be permitted for use at the mine site unless it had been made subject to a transfer agreement with the Sea-bed Authority.

The Enterprise would have available to it very generous financing. Interest-free loans would be available to cover one half of its expenses [6]. The remaining one half of its financing requirements would be guaranteed by all states parties in accordance with their general assessments in the United Nations regular budget [7]. Since the U.S. is a major contributor to the United Nations now, this financing scheme implies that the U.S. would be principal lender and guarantor to the Enterprise. By one estimate, the U.S. would have to provide $125 million in interest-free loans to fund mining activities of the Enterprise [8] and, by extension, an additional $125 million in guarantees. My own feeling is that this estimate is low.

It seems unlikely to me that any commercial party would be interested in competing with the Enterprise. It is bad enough to enter a contest with someone who has the right to make the rules as he goes along. It is even worse when you know from the beginning that those rules are designed to give you an inherent and continuing disadvantage. With no start-up costs, financing

costs, application fees, profit overrides, the Enterprise will always be able to sell its product at a lower price than the commercial applicant. Put another way, only in times where the Enterprise, together with land-based producers, are unable to meet demand will the private mining companies have any chance of selling their product. A formidable obstacle indeed.

Parallel Development of Deep Seabed Mining

A compromise suggested by Henry Kissinger to break a deadlock on deep sea mining was that private parties and individual states would have the right to mine the seabed in parallel with the Enterprise established by the Sea-bed Authority. As presently contemplated, the applicant for a mining concession must:

1. Prospect two mining sites, thereby doubling his developmental costs.
2. Pay an application fee of $500,000.
3. Pay an annual exploration fee of $1 million.
4. After commercial production commences, pay a 5 percent production charge.

The Enterprise would be exempted from all these fees and, of course, from any costs of prospecting or developing a mining site. That all will be given gratuitously by the applicant mining company.

Still unresolved is the possibility of taxation. No doubt the Enterprise, as a UN organ, would be exempt. The commercial miner faces the prospect not only of taxation in his own country but of taxation by the Seabed Authority.

The Seabed Authority would reserve one site for its use and would (or might!) authorize the applicant to mine the other.

FINANCING

Forms of Mining Ventures

The type of financing suitable to deep sea mining operations will depend upon the type of organization which does the mining.

The Enterprise is contemplated to have financing through the contributors to the United Nations and (indirectly) through contributions of competing mining operations.

The centrally planned economies will finance their exploration and mining through their state budgets. These economies may also enjoy some of the financing techniques described below.

It is the traditional free enterprise corporations and consortia which will require traditional financing and to which the following remarks will be most relevant.

Sources of Finance

Equity of Principals

In most business ventures, equity constitutes the necessary first ingredient in any undertaking. Lenders will agree to contribute money only if and after equity has been contributed.

Ratios of equity to debt may vary. Conservative lenders may require one dollar of equity for every dollar of debt. In some projects, this ratio may increase somewhat. The Japanese trading companies are a remarkable exception to this rule, and are leveraged at 100:1; that is, for every $1 in capital they have $100 in borrowings. These companies, of course, are unique in the world by virtue of their interrelationships with other companies in the family group. Funds used thus far by the consortia have probably come from equity of member companies.

While corporate treasurers normally charge interest (or more accurately, opportunity costs) against their equity, there is no true interest expense paid. Thus equity can be invested without producing a subsequent drain on the company for payment of interest and repayment of principal, as occurs when repaying a loan.

Government Grants, Loans and Subsidies

Participation by governments in major financing is possible. Outright grants with no requirements for repayment or subsidies on some formula basis have been seen in areas where the government has a vested interest in seeing development. Alternatively, loans at favorable rates can also be made by governments to companies pursuing activities which the government considers desirable. In the area of deep sea mining, it is likely that government grants can and will play a major role in financing.

Of course, in centrally planned economies, virtually all funding comes from the government.

Government Guarantees

Various governments provide guarantee and insurance programs to facilitate financing. The United States' Overseas Private Investment Corporation, for example, provides such a program which has been utilized in financing mining ventures.

Lending From Supranational Institutions

The World Bank. The World Bank and its affiliates, the International Financial Corporation (IFC) and International Development Association (IDA), are possible sources of financing on major projects.

The International Bank for Construction and Development (IRDB) is a technical name for the World Bank. At the end of fiscal year 1982 it had lending commitments in excess of $10 billion. The IRDB lends to governments, government agencies, and private enterprises. If the economic feasibility of a deep sea mining project could be established, the World Bank would be a likely lender or co-lender. Established in 1945 as a result

of the 1944 Bretton Woods Conference, the Bank is dedicated to financing the development of its 140-plus members [9]. Loans are made on (more or less) commercial terms to projects which promise high real rates of economic return to the borrowing country [10]. Normally, guarantees are required from the government of the borrower.

The International Financial Corporation (IFC). The International Finance Corporation is interested in large complex projects meeting certain criteria that are considered desirable from the World Bank perspective. The IFC will contribute both equity and debt into a project. Unlike the World Bank, the IFC lends without government guarantees. Its objective is to promote economic progress in developing countries by helping to mobilize domestic and foreign capital to stimulate the growth of the private sector. It is prepared by its charter to assist all developing countries from the poorest to the most advanced. As of the end of fiscal 1982, its lending commitments exceed half a billion dollars [11]. The IFC's technical assistance to member countries and project sponsors is equally important in stimulating private capital flows. The bulk of its assistance is project-related and consists of legal, financial, and engineering advice to the project sponsors.

The IFC's role goes beyond simply providing funds and technical advice. Its presence often raises investor confidence in proposed ventures and facilitates the process by which partners (including governments) can arrive at mutually satisfactory investment arrangements [12].

According to the IFC's 1983 annual report, it had equity investments in forty-one companies, totalling $55.3 million. Projects have included mining and processing such minerals as bauxite, chromite, cobalt, copper, magnesite, nickel, and silver.

The International Development Association (IDA). The International Development Association (IDA) was established in 1960 to lend to the the poorest countries in the World Bank. Eighty percent of the credits go to countries with an annual per capita income below $410. Total lending commitments of IDA during fiscal year 1982 were $2.7 billion. Loans are made for long term (up to fifty years with grace periods of ten years, and at no rate of interest) [13]. Conceivably, poorer nations may be able to participate in joint venture mining operations by borrowing from the IDA.

All three wings of the World Bank list mining as an activity which they are interested in assisting. (Exhibit A shows a more complete breakdown of the World Bank's exhibits and activities.)

Other Supranational Lenders. In addition to the World Bank and its affiliates, the IFC and the IDA, other agencies such as the Inter American Development Bank and the Asia Development Bank, established under similar lines with sponsoring nations in the respective areas, may also be expected to provide financing at some point in the future to deep sea mining when the economics prove viable.

EXHIBIT A

THE WORLD BANK

	International Bank for Reconstruction and Development (IBRD)	International Association (IDA)	International Finance Corporation (IFC)
Objectives of the institution	To promise economic progress in developing countries by providing financial and technical assistance, mostly for specific projects in both public and private sectors.		To promote economic progress in developing countries by helping to mobilize domestic and foreign capital to stimulate the growth of the private sector.
Year established	1945	1960	1956
Number of member countries (April 1983)	144	157	124
Types of countries assisted	Developing countries other than the very poorest. Some countries borrow a blend of IBRD loans and IDA credits.	The poorest. 80% of IDA credits go to countries with annual per capita incomes below $410. Many of these countries are too poor to be able to borrow part or any of their requirements on IBRD terms.	All developing countires, from the poorest to the more advanced.
Types of activities assisted	Agriculture and rural development, energy, education, transportation, telecommunications, industry, mining, development finance companies, urban development, water supply, sewerage, population, health, and nutrition. Some nonproject lending, including		Agribusiness, development finance companies, energy, fertilizer, manufacturing, mining, money and capital markets institutions, tourism and services, utilities.
Lending commitments (fiscal 1982)	$10,330 million	$2,686 million	$580 million
Equity investments (fiscal 1982)	IBRD and IDA do not make equity investments.		$32 million
Number of operations (fiscal 1982)	150	97	65

Terms of lending:			
Average maturity period	Generally 15 to 20 years	50 years	7 to 12 years
Grace period	Generally 3 to 5 years	10 years	An average of 3 years
Interest rate (as of 4/1/83)	10.97%	0.0%	In line with market rates
Other charges	Front end fee of 0.25% on loan. Commitment charge of 0.75% on undisbursed amount of loan.	Annual commitment charge of 0.5% on undisbursed and service charge of 0.75% on disbursed amounts of the credit	Commitment fee of 1% per year on undisbursed amount of loan
Recipients of financing	Governments, government agencies, and private enterprises which can get a government guarantee for the IBRD loan	Governments. But they may relend the funds to state or private organizations	Private enterprises; government organizations that assist the private sector
Government guarantee	Essential	Essential	Neither sought nor accepted
Main method of raising funds	Borrowings in world's capital markets	Grants from governments	Borrowing and IFC's own capital, subscribed by member governments
Main source of funds	Financial markets in US, Germany, Japan and Switzerland	Governments of US, Japan, Germany, UK, France. other OECD countries, and certain OPEC countries	Borrowings from IBRD

Source: The World Bank, note 41, supra, pg. 5.

Suppliers' Financing

Major industrial nations, both within and outside the OECD, have financing schemes to encourage the purchase of goods manufactured in these countries. The Japanese and Korean Export/Import Banks are perhaps the largest players in these arenas. However, the U.S., the U.K., the Netherlands, Germany, France, and Scandinavian countries all have rather generous financing programs.

Presently, up to 80 percent of a particular item such as a ship, drilling platform, or other item can be financed for as long as eight and a half years at attractive rates of interest, currently 7.5 percent per annum. Additionally, informal "under the table" arrangements are often made by manufacturers or yards in certain exporting countries to further assist financing. While this clearly violates the spirit of the OECD Agreement of Understanding, the practices nonetheless continue.

By this method, large items of capital can be financed.

Commercial Bank Financing

Last but not least comes commercial bank financing. I have listed this last because it is the most conservative and most difficult to get of the various types of financing.

Commercial banks have often been compared to shopkeepers who only sell umbrellas when the sun is shining. This is largely true. The only people who can borrow money from commercial banks are people who can demonstrate that they are certain to be able to repay it. To the typical borrower, this view seems rather prosaic and rigid.

However, we must understand that the business of banking is the business of measuring risks. Identifying, understanding, quantifying, and allocating risks is the first step in a commercial banker's analysis of whether or not to make a loan.

For the sake of clarity, we can divide these risks into three areas: political risks, technological risks, and market risks. To elaborate:

Political risks relate to the regulatory environment in which the borrower must operate. The regulatory environment must be clear and stable. Ambiguity of regulations means uncertainty. This can affect the project's success. Instability of the regulatory body or the political state in which the borrower or project exists can also produce risks beyond the control of the parties to the loan.

Often political risk insurance can be bought. For the U.S. investor, the Overseas Private Investment Corporation (OPIC) offers political risk insurance, for a premium, of course. Additionally, Lloyd's of London has been willing to underwrite political risk insurance as well. Quantifying these risks and finding someone outside the transaction who is prepared to underwrite them is an essential step in securing a financing.

Technological risks relate to the project itself, and to the abilities of the borrower to complete the project as expected. Technological risks can be divided into completion risks and production risks. The former deals with whether or

not the project can, in fact, be completed on time and within budget. Production risks relate to whether or not, once completed, the project can produce the amount and grade of material that was anticipated.

In both these areas, clearly, dealing with an experienced company is essential. Here the track record of the borrower will be carefully examined. If the borrower has done this sort of thing many times before and can produce expense and revenue figures, then these risks are minimized. However, if there has been no experience in this particular area, then these unknown elements of the projects loom menacingly.

Market Risks. Once the project is completed and production on schedule, a new set of risks enters the equation. These are risks that the product will be able to command the projected price. Implicit here is that demand and supply are at levels projected in the original feasibility studies. Behind these price, supply, and demand risks is the cash flow risk of the project. Put simply, will the project, when completed, produce sufficient revenues to pay the debt?

The Risks of Financing a Deep Sea Mining Project

Let's look now at the prospect of mining the deep seabed in the context of the three sorts of risks we have just discussed:

Political Risk. The regulatory environment surrounding deep seabed mining is ambiguous at best. As yet, the details of the deep seabed mining regime have not been published. Until they are, no deep sea mining company will be prepared to continue pouring money into exploration and development.

Once a regulatory environment is established, the stability of that environment will probably be somewhat uncertain. The fact that the Council will be largely controlled by the democratic processes of the UN will make most multinational consortia somewhat dubious about the consistency and equity of regulations. Unless the rules of the game are clear and unchanging, investors will stay away from deep sea mining.

Technological Risks. As yet, no one has a successful track record in deep sea mining. The several consortia and national groups which have begun prospecting are still in experimental and developmental stages. It will be some time before any are able to demonstrate a successful track record. This will make financing extremely difficult.

As to completion risks, I paraphrase Sir Francis Bacon's sixth aphorism in Novum Organum, "Things which have never yet been done cannot be done except by means which have never yet been tried" [14]. As obvious as this sounds, it is the sort of analysis that makes a banker's blood run cold. He is apt to say: "Try it first. Tell me if it works. Then I'll consider lending to you."

Production risk can never be quantified under the proposed deep seabed regime. The fact that the Sea-bed Authority can curtail production to protect land-based producers is a fatal flaw in the structure of the seabed mining regime. Once the production risk falls out of the control of the borrower, he

will no longer be willing to accept it. Normally, the completion and production risks stay with the borrower. Not in this case.

Market Risks. As to market risks, currently both the price and demand risks are not acceptable. Metal prices are low and show no signs of rising. It will be some time before market risks are such that anyone will be prepared to invest in deep sea mining. The fact that production can and will be manipulated by the Sea-bed Authority almost assures that prices will not be sufficiently attractive to ensure the success of the project.

Difference Between Equity and Debt

Since the beginning of time there has been a relationship between risk and reward. Jason's recovery of the Golden Fleece and other heroic adventures which have been handed down to us from the mists of antiquity serve to prove this point. It is no different in today's business world. In any transaction, the individuals who put up equity have that equity at risk. If the project is unsuccessful, they will lose that equity and have recourse to no one. In exchange for this they will benefit from the success of the project.

On the other hand, the lender expects only a modest reward. Return of his principal plus some rate of interest. Keep in mind that the rate of interest collected by a bank is a gross figure and includes the lender's cost of borrowing that money. The true net spread to the lender is usually in the range of .5 percent to 3 percent. By contrast, an equity investor will not proceed with a project unless he can achieve at least 15 to 20 percent on his money. Because the lender has so little reward for his investment, his risks must necessarily be low. He will pass on virtually all the risks he can to other parties. This conservative philosophy is shared in common by virtually all lenders: commercial bankers, supranational lenders, suppliers, etc. Only the deep pockets of various national governments seem to exempt them from the analysis described above.

This philosophy of lending is not clearly understood by many unaccustomed to the mercantile world. To expect high rewards without risks is unrealistic.

CONCLUSION

The entire issue of the Seabed Authority and the Enterprise will need to be revisited and reconstructed in a logical way which will encourage the investment of private consortia for developed nations, and which will allow financing.

Presently existing fatal flaws in the Convention need to be eliminated:

1. The exclusive control of the deep sea resources by the Seabed Authority will deter investment and discourage financing.
2. The right to control production will prevent anyone from proceeding.

3. The parallel system of exploration gives an inherent advantage to the Enterprise and must be revised or abandoned.

The deep seabed mining regime needs to be recast to assure common access to the minerals for all, with a sharing in the profits and technology by all. This can best be done by a simple licensing or taxing scheme.

Even with these substantial modifications, it seems likely that the resources of the deep sea, the common heritage of man, will be enjoyed by our children or possibly by our children's children and not by us.

I believe we have plenty of time to sort this out.

NOTES

1. Final Act of the Third United Nations Conference on the Law of the Sea, U.N. Doc A/Conf. 62/121 (1982), Article 140.
2. Ibid, Article 82, paragraph 2.
3. Ibid, Article 144.
4. Ibid, Article 148.
5. Final Act, note 18, supra, Article 151 (1).
6. The United Nations Convention on the Law of the Sea, U.N. Doc. A/CONF. 62/122 (1982), hereinafter referred to as the Convention, Article 11(3b), Annex IV.
7. Ibid.
8. Letter of Congressman John Breaux, et al. to President-Elect Ronald Reagan (December 10, 1982), cited in Briscoe, "Seabed Mineral Discoveries within National Jurisdiction and the Future of the Law of the Sea," 18 USF Law Review 1984, p. 473 (footnote 172).
9. "The World Bank and International Finance Corporation" The World Bank, p. 3 (1983).
10. Ibid, pp. 4,7.
11. Ibid, p. 5.
12. International Finance Corporation 1983 Annual Report, p. 6.
13. World Bank, note 41, supra, p. 5.
14. Francis Bacon, Novum Organum, vi, E. Burtt, ed., The English Philosophers from Bacon to Mill (New York: Random House, 1939) p. 29.

COMMENTARY

James L. Johnston
Senior Economist
Standard Oil Company (Indiana)

I am currently on the board of the Economic Education for the Clergy. I think that the people that asked me to do that were not aware of the tremendous success I had in imparting the wisdom and joy of economics in the law of the sea environment. So they asked me to do a similar exercise for the clergy. I must warn you that you should fully be prepared to adopt agnosticism if not atheism in the wake of my efforts.

Well, let me talk a little bit about some economic fundamentals -- as Lewis Carroll once said, "they invited him to the party and he spoiled it" -- and perhaps share with you at least some preliminary thoughts about why we have the current state of metals markets and then end on some conclusions about the viability of stable institutions.

Let us start by talking about some fundamental economics, especially with respect to developing economies. First of all, scarcity is the basic underlying factor which explains why we have an economic system. If goods were completely plentiful and we could get all that we wanted at a zero price, there wouldn't be the necessity for economic choice.

Further, differences in endowments and tastes on the part of consumers give rise to exchange. Consumers with some endowments and taste exchange with other consumers, with the producers being effectively intermediaries. Trade is mutually beneficial to all parties; otherwise, trade -- voluntary trade -- would not take place. Specifically, trade is not a zero-sum game where the gains to one party accrue because there are losses to the other parties. It has to be mutually beneficial. Discipline in the marketplace is achieved through competition among producers, among consumers, and, it should be stressed, among institutions like government which define property rights and enforce them.

The presumption is that developing countries are the principal suppliers of raw materials, especially hard minerals; thus the popular assumption is that restricting seabed mining is beneficial to developing economies. This is wrong, simply not consistent with the facts. If any of you would like to have a full treatment of that, I will give you my paper on the subject. Development is principally achieved through investment utilizing plentiful raw materials at reasonable prices. Well-defined property rights are an important ingredient in that process.

That brings me to the model of political and economic and legal institutions which insure well-defined property rights. There are not only economic entrepreneurs but there are also political and legal entrepreneurs who continually propose new institutions. If the world is changing in a way that calls for new institutions, then these new institutions which fit the

changed state of the world survive and the other new ones and perhaps some of the older ones do not. Old and unused institutions are often just simply ignored, and there is considerable economic history evidence to support that. Legal institutions are among those that, I submit, depend upon well-established practice in order to be viable. Thus the legal role is to codify existing practice. You cannot formulate legal institutions, in my view, in advance of existing practice and expect to facilitate the development of that practice or economic activity. I know that view is not shared by all of you here, and indeed there's been a speaker earlier today who said quite the contrary. I think the evidence in history supports my view.

Now a word about investment, since that is the key to a developing country's fortunes. I must say I agree with Alex Krem's interpretation. I hesitate to say that for fear that it will confirm your suspicions that multinational oil companies and large international banks are very much of the same mind on subjects, if not even further related. Well investment is basically an intertemporal choice. I think it is important to remind yourself about that. It is not a choice between this good now and that good now, it is a choice between the collection of goods and services you can partake of now and perhaps more goods and services, more wealth, in the future. The price that is associated with investment is the interest rate and the interest rate relates the values now and the values in the future.

So the factors that drive investment, successful investment, I should hasten to add, -- by the way, there is a lot of unsuccessful investment but, you see, it is not around any more to really measure. So the successful investment has several factors which are important.

First of all, there has to be a bright future market demand and there is some question about whether that is the case in the minerals markets these days for a lot of the reasons that Conrad Welling mentioned in the introduction.

A second factor is that the cost, including the regulatory cost, must be below the expected return appropriately discounted by that important interest rate that I mentioned before. I must say that the idea of having a piece of paper which claims to give you an exclusive right is often overrated in discussions. A piece of paper which says you have an exclusive right is offset to a considerable extent, if not overwhelmed, by an erosion of the property rights through the extensive regulation and detailed control of an operation that must have a considerable degree of flexibility, especially in the infant developing stages.

Now let me mention also, to underscore a point that Alex Krem mentioned, that there are a couple of ways -- he mentioned three or four -- or sources of financing. I think the basic distinction in the market environment is between debt and equity. Debt is the thing that banks like to engage in. That implies that a lot of the risk, not all of the risk but a lot of

the risk, has been taken on by those investors that have an equity interest. Equity is by-and-large engaged in by firms. I might mention as an aside that that doesn't always mean that there must be exclusive rights to a basic resource in order to get that financing, and the example I would offer is that tuna fishermen, for example, who do not have the rights to the resource in situ nonetheless get financing for very expensive equipment, electronics, and vessels, state of the art vessels, largely because they have demonstrated in the past that they are capable of producing income from that financing. So it is important to realize that there are both debt and equity. While Alexander Krem presents a very complete description, I think someone like myself, speaking from a firm that would engage in an investment of raw material resource and recovery, essentially concentrates a lot more on the risks associated with the equity part of the investment. Indeed, that is the most serious concern.

We currently have raw material prices that are at historic lows, despite a very strong recovery at the moment, an investment-led recovery, and hence a very strong demand for credit that is associated with such a recovery. Recent history, however, of the Federal Reserve is that monetary policy has been very tight. What we see is a sharp decline in historic rates of inflation. In the last three months the money supply has been held pretty much at a zero rate of growth. Now what that implies is that the value of the dollar is going up. In other words, there is occurring a deflation in the currency which is very, very rare. The only previous episode that we have well documented is in the late 1920s and the early 1930s, and we are all familiar with the disastrous consequences of that. The Federal Reserve in the early 1930s reduced the money supply by one-third and we had a recession, nay a depression, that was world-setting as far as records are concerned.

So what we have now is the value of the dollar rising while the Fed is not exactly curtailing the money supply. They are, however, holding its growth dead in the water and we have, consequently, falling commodity prices. That is exactly what you would expect. It is the flip side of what occurs during inflation. When inflation occurs, the value of dollars and other currencies goes down and people take refuge in finding a store of value by putting their assets into real commodities.

Now the Fed could change its course, especially if the beginnings of a recession set in. But this is not necessarily good news, at least in the intermediate term. If the recession means lower aggregate demands for all final goods, then that also means that there is a decreased demand for the raw materials from which those final goods are made. We have, therefore, a lesson from a domestic institution (the Federal Reserve), and, I ask, what better performance could we expect from an international institution? I think that is very worrisome.

It was often pointed out to me in my lone role as an economist on the U.S. delegation to the Law of the Sea

Conference that there was a difference between political reality and economic reality. I am pleased to report to you that two recent elections, one in Canada and one in Massachusetts, I think, confirmed at least in my thinking that the economic reality and the political reality may not be all that different.

COMMENTARY

Joel Paul
Graham and James
San Francisco

The subject of financing the mining of deep seabed resources reminds me of "The Mad Woman of Chaillot." That play, you may remember, tells the story of a prospector who discovers a fantastic supply of oil under the city of Paris, which unfortunately requires the city's removal. The prospector at one point warns us that "The treasures of the earth are not so easy to find nor to get at. They are invariably guarded by dragons...but that is the risk we take." Prospectors and mining companies may take that risk, but that is not the risk that my clients -- banks and financial institutions -- are prepared to assume.

In the interest of time, I will make just make a few brief comments about the feasibility of private lending for deep seabed mining in response to some of the papers presented. First, deep seabed mining would require enormous capital. The American Mining Congress in testimony before the House Subcommittee on Oceanography estimated three years ago that a single deep seabed mining site would require an initial outlay of at least $250 million and five years of pilot operation plus $120 million in research and development. After this initial five-year pilot program, expenditures of up to $1 billion and five more years of construction would be required to establish a single viable commercial plant.

Second, deep seabed mining will involve a high degree of technical, political and economic risk. The technology for constructing mobile mining platforms to reach far greater depths than conventional oil rigs and to remain at sea for many years withstanding treacherous weather conditions has not been proven. The political uncertainty caused by the refusal of certain western countries, including the U.S., to sign the LOS Convention further complicates the overall investment picture, for the reasons discussed below. Operating costs and revenues for ocean minerals are sensitive to changes in energy costs and volatile metal markets. How would an investor in deep seabed mining assess the profitability of a proposed project with uncertain operating costs and unknown pricing structure? The absence of a competitive world market for nodules is a significant obstacle in determining pricing and attracting investors. This three-headed dragon of technical, political and economic risk stands as a warning to all foolhardy investors in deep seabed mining. So, it is unlikely that most mining companies will be prepared to assume this kind of a liability on their books. Even if mining companies form consortia to spread the risk to any one company, the level of risk may be unacceptably high. Consequently, most mining companies will rely on non-recourse or "project financing." Project financing

means that the lenders will have to depend upon the income that is generated by the mining project itself to assure repayment rather than depending upon the general credit of the mining company. Project financing allows a mining company to shift some of the risk onto the lender.

There is a different security for project financing, and frankly, each kind of security is problematic at this juncture in the development of the industry. The typical form of security is a lien on the mining equipment. However, where the equipment is located outside of a state's territorial waters, how would a bank's security interest be enforced in the event the mining company defaults? A security interest in a mobile mining platform operating in international waters for many years at a time is not much security for a bank. Even if a bank could seize the vessel, the technology is too uncertain for there to be an international market for such equipment. What would a private lender do with millions of dollars worth of deep seabed mining equipment?

An alternative form of security for project financing is an assignment of the proceeds from mining operations. This, too, would be very difficult to enforce when the operation is taking place outside of territorial waters.

A third security possibility is a "take-or-pay contract" where the mining company assigns to the lender the proceeds of a sales contract with a consumer of the nodules. This shifts a substantial burden of the risk onto the mining company. Neither mining companies nor lenders would assume such risk before the technology is commercially proven.

My personal expectation is that the industry's development will rely heavily upon government financing. This indeed seems to me to underlie the U.S. law and policy. The U.S. federal statutory scheme is embodied in the U.S. Deep Seabed Hard Mineral Resources Act of 1980, 30 U.S.C. 1401 et seq. The Act illustrates two contradictions in U.S. policy which define the role for private lenders in financing deep seabed mining. The first contradiction is the legal character of the seabed.

In Section 3 of the Act the Congress declares that by the enactment of this legislation the U.S.

(1) exercises its jurisdiction over U.S. citizens and vessels, and foreign persons and vessels otherwise subject to its jurisdiction, in the exercise of the high seas freedom to engage in exploration for, and commercial recovery of, hard mineral resources of the deep seabed in accordance with generally accepted principles of international law recognized by the U.S., but

(2) does not thereby assert sovereignty or sovereign or exclusive rights or jurisdiction over, or the ownership of, any areas or resources of the deep seabed.

In Section 2 of the Act the Congress goes further reminding us that the U.S. has supported the principle that the mineral resources of the deep seabed are the common heritage of mankind. What are we to make of this muddle? On the one hand the U.S. declares that the deep seabed belongs to the common heritage, that it cannot be expropriated by any state and that the U.S. asserts no territorial claim to it. On the other hand, the U.S. asserts that the deep seabed is res nullius; that is, that it is unoccupied territory open to exploitation and exclusive claims by the first state to occupy it.

The inconsistency can best be shown in the Act's licensing provisions. In order for U.S. nationals to engage in deep seabed mining operations, they are required to obtain an exploration license prior to obtaining a permit to actually conduct mining under the provisions of the Act. Under Section 103, the National Oceanic and Atmospheric Administration (NOAA) shall license exploration at the particular site unless NOAA finds that the site is not a "logical mining unit." That is an essential prerequisite for the granting of a license. The Act defines the "logical mining unit" or an area of the deep seabed which can be explored in

> an efficient, economical, and orderly manner with due regard for conservation and protection of the environment, taking into consideration the resource data, other relevant physical and environmental characteristics, and the state of the technology of the applicant.

That does not give you a clear idea of how much area a particular licensee is entitled to. What is an "efficient, economical and orderly manner" of exploration? What is "disregard" for the environment? What is "resource data" and what other characteristics are "relevant"? How do we assess the applicant's level of technology? Do we impose different standards on different applicants? The effect of this provision is to encourage licensees to enlarge their claims, since there is not statutory deterrent to biting off more than they can chew. We can expect to see a rush of applicants attempting to claim the largest possible area of the deep seabed. Moreover, the Act grandfathers any such claims once approval is granted by NOAA. Once NOAA grants a license for a particular area, that licensee's right is protected. If the U.S. becomes a party to the LOS Convention, the licensee is assured under this Act that its right to that mining site will be respected under substantially the same terms granted by NOAA.

This contradiction in U.S. policy regarding the legal character of the deep seabed increases the risk to private lenders. Until there is one internationally recognized regime of the deep seabed, the legal status and security of mining projects in international waters is uncertain. Will other governments recognize the legitimacy of a U.S. national's claim to the seabed? Will a private lender be able to enforce its

rights against a foreign mining company operating in international waters? What if there is a competing claim to the same mining site by The Enterprise or by the national of a state party to the LOS Convention? What if an LOS member state's national is interfering with mining operations conducted by a U.S. national? Would maritime law or the law of piracy protect a private lender against acts of terrorism or accidental collisions in international waters involving a deep seabed mining vessel even if such vessels are operating outside of the LOS Convention? Certainly, these are not novel issues. There is ample maritime law on the jurisdiction to prescribe and enforce on the high seas. What is novel is that some states' nationals, including U.S. nationals, are operating outside of a recognized international regime, and this could potentially alter the rights and obligations of such nationals in foreign courts which may not recognize the legitimacy of such nationals' claims. We do not know whether the rights and duties of U.S. nationals may be affected, but we can expect as long as the situation is uncertain that risk-adverse lenders will avoid the turbulent political waters obscuring the seabed's treasures.

The second contradiction in the U.S. law and policy relates to the role of private enterprise. On the one hand, the U.S. position at the LOS Conference was to rely upon private capital and free enterprise to develop these resources. The U.S. opposition to The Enterprise was based in part on traditional U.S. reliance on and defense of the free market. In fact, for the reasons given above, it is probable that private mining concerns will have to rely on government financing, which the Act provides for. Under Section 102 of the Act, vessels engaged in deep seabed mining that have had licenses issued by NOAA are required to be documented by the U.S. and will be deemed to be "involved in foreign commerce" for purposes of Section 905(a) of the Merchant Marine Act. Under the Merchant Marine Act, vessels involved in foreign commerce are entitled to certain operating and construction subsidies provided by Congress for the U.S. Merchant Marine. This is potentially of great significance to the industry, and it is likely to become a prime source of financing for deep seabed operations. In addition, the Internal Revenue Code was amended by the Deep Seabed Resources Act to provide for considerable investment tax credits for such operations. The U.S. is prepared to invest significant public capital in the development of deep seabed mining, despite its public posture of reliance on private capital.

These two contradictions, freedom of the seas versus the common heritage and the rhetoric of private capital and free enterprise versus the reality of government subsidies, are the pivotal issues which will determine how deep seabed mining is financed. For the present, this means that the private lender is wary of the dragons that guard the ocean floor and the councils of state.

COMMENTARY

Eldon H. Reiley
Professor of Law
University of San Francisco

I am a relative latecomer to law of the sea issues. I have come by a circuitous route, but, however circuitous, it has brought me to the same conclusion as that stated by our chairman in his opening comments this afternoon.

For several years I have been working at developing a law school course that focuses on legal responses to technological change -- essentially a legal process seminar. Each year a larger chunk of the course has concerned developments in marine technology and the law of the sea. I am impressed that one aspect of technological development is of overwhelming significance to our discussions this week, overshadowing mining technology and processing technology. That aspect is advances in discovery technology -- recent developments in man's ability to explore the ocean floor and discover what is there to be found.

Until recently our discovery technology had been quite primitive. Only in the last few years have we had the ability to conduct large scale sea floor explorations. Only in the last few years have we been aware of the existence of the polymetallic sulphides and crusts shown earlier in Professor Malahoff's slide show.

An aspect of this not touched upon by Professor Malahoff occurred this summer when a small group of British and American scientists towed a sonar device, which they call GLORIA, up and down the Pacific coast. Going forward at a speed of 7 to 9 knots per hour, and charting a swath of seafloor 45 kilometers wide, they succeeded in producing a sonar picture of the entire American Pacific Coast EEZ from Mexico to Canada in a three-month period. This is a picture of 250,000 square miles which had never been completely charted before.

If we had their sonograph here for us to look at now, you would see what would look like a huge black and white photograph about six feet wide with the Mexican border at the floor and the Canadian border up there above the ceiling. And if we could call on one of the marine geologists in this room to help point out features to our untrained eyes, we would be able to see a number of things that no one knew were there before this summer.

Two weeks ago a member of the GLORIA team came to my class and discussed the results of the summer with the students. Let me pass on just one thing that he told the class. In that area of the American EEZ off the Southern California coast, between Point Conception and the Mexican border, an area shaped roughly like a square of about 200 miles on each side, GLORIA's sonograph revealed the existence of more than 200 underwater sea mountains each larger than our famous belching landbased volcano to the north, Mount St. Helens.

To me this discovery is mind boggling. It is not so much the discovery of significant geographical features, but rather the fact that they were there and we didn't know about it until this summer. What else are we going to find with more exploration?

True, this is not the discovery of new marine resources. GLORIA isn't capable of that. But such information does indicate likely places to look for new marine resources. It seems clear that with follow up explorations we can expect the discovery of additional marine mineral deposits and, probably, of new types of deposits in forms as yet unimagined.

To the extent such finds are made within the EEZ, the deep sea minerals and their controversial treaty provisions become less significant. To the extent such discoveries are made in "the Area" beyond the EEZ, it becomes appropriate to revert to the point made yesterday (and reiterated today): namely, Part XI of the Convention having been drafted with manganese nodules primarily in mind, it may be necessary to do some redrafting to make it more universally applicable to other types of minerals.

With respect to the comments of Mr. Paul relating to the licensing activities of the United States, we all recall that yesterday after lunch we were served a dessert of strident comments from Ambassador Malone. I found the Ambassador's comments unclear on the question of whether America recognizes the common heritage concept as a principle of customary international law, although I understood Professor Moore and other speakers to agree that the common heritage had been absorbed into international law. What was abundantly clear was that America objects to the specific contention that "common heritage" has been given in the provisions of Part XI. And, for the first time in any statement that I have heard, it seemed to me clearly stated that our objection was an ideological objection, not merely a textual objection.

One of the problems, or perhaps advantages, of the common heritage concept is that it is so vague that it can mean many different things to many different people. Unless it is placed in a detailed context, it is almost meaningless.

I found the Ambassador's explanation similarly elusive when he discussed the legal justification for national licensing of deep sea mining activities at this time. I thought I heard him say that this was grounded in well-established principles of customary international law relating to freedom of the high seas. Then I thought I heard him suggest that with the August 3 "understanding" America was sallying forth into uncharted waters, as it were, creatively creating new legal principles that would in time gain recognition as customary law. Perhaps those are consistent explanations. It may not be terribly important. What is important is an unanswered question in the American position: if the common heritage concept has become part of customary international law, and if America recognizes that in a general context, what residual meaning can be accorded to common heritage if it allows licensing of deep sea mining without any international supervision or participation? Those

among us who both support the United States' position and believe "common heritage" is a principle of customary international law must have an answer for this. We heard an interesting French answer this morning. Is there an American answer?

America's present position on the deep seabed, as I hear it, emerges as this: persons or states with the technological ability to do so are entitled to exploit the deep sea minerals for their own benefit without international supervision or participation.

The notion that minerals beyond national jurisdictions are up for grabs by those few with the ability to grab sounds to me like a reversion to eighteenth-century colonialism. In 1984 this seems almost to be bordering on the immoral. Why does possession of technological ability entitle the possessor to exploit minerals beyond national jurisdictions? Surely it is incumbent upon our government to recognize some limitation imposed on our position by the common heritage principle.

Where do we go from here?

It has several times been suggested, and it seems a practical conclusion, that Part XI should be redrafted and renegotiated. There are now two reasons for this: to accommodate the legitimate objections of the United States and other nations, and to adapt its provisions for mining minerals other than nodules.

I would hope that future agendas of this and other international organizations would include opportunities for identifying and discussing those provisions of Part XI that are peculiarly related to nodules and should be redrafted for broader applicability.

I would hope that future agendas would include discussions that go back to square one and consider what range of meaning can be agreed upon for the common heritage principle. Surely some aspects of this can be sold to the United States Senate. Yesterday Professor Garvey tantalized us with a reference to the trust theory and the property theory. We should elaborate on those.

In the meantime, I would hope that all our nations will support continued marine exploratory activities. Happily, whatever we may individually think of the posture of the Reagan Administration, it is strongly backing and supportive of future GLORIA expeditions.

That is a positive note on which to end.

COMMENTARY

MARINE POLYMETALLIC SULFIDES AND SCIENCE VALUE

Robert E. Bowen
Marine Policy and Ocean Management Center
Woods Hole Oceanographic Institution
and
University of Massachusetts, Boston

I would like to spend the lion's share of my time this afternoon commenting briefly on an area of some reasonable importance; that is, the continuing need for certain freedoms in basic marine scientific research. I would like to address generally these issues in light of the deep sea sulfide occurrences referred to over the last few days.

As has been noted, marine polymetallic sulfides (MPS) are mineralizations generated by deep sea hydrothermal activity and contain intriguingly high amounts of several metals, including zinc and copper. Their resource potential, however, is characterized as being negligible in the short term and uncertain and highly speculative in the long term. Alternatively, the scientific value of these areas should be seen as quite high and quite immediate. Knowledge relating to the geology of the depositional areas, to the geophysics of the processes generating them, and to the biology of the communities surrounding them is of intense interest to many in the scientific community.

The development of generalizable statements about these areas and processes contributes in one form or another to virtually every major field in marine science. The need to address basic scientific issues is apparent. For example, in the minds of many, increased knowledge about the chemosynthetic communities surrounding vent areas would contribute significantly to our understanding of the early evolution of life. A question of no small importance.

However, a major problem is that it is difficult to measure the worth of basic science in comparable terms. It is too often the case that we characterize such areas in terms of their resource potential and too seldom characterize them in terms of their more immediate scientific value.

It should be recognized that most known MPS depositional areas arguably fall within the jurisdiction of at least one coastal state. It can be reasonably stated that all deposits known to us, save for that at 20 degrees on the East Pacific Rise, will likely fall within either exclusive economic zone or continental shelf jurisdiction. One obvious consequence of this situation is that these sites would be in areas over which the coastal state could manifest control over the conduct of marine science.

This potential is brought on by a combination of the unusual physical characteristics of these hydrothermal vent

areas and the ambiguity inherent in certain of the provisions of the Law of the Sea Treaty, particularly those relating to the delimitation of the continental shelf beyond 200 nautical miles. Indeed, marine polymetallic sulfides provide a fascinating case study in continental shelf delimitation.

It is Article 76 of the treaty that defines the limits of the continental shelf. As we all recognize, the latitude afforded coastal states in delimiting the shelf is substantial -- and that, I assure you, is an understatement. However, when considering MPS those ambiguities become even more pronounced. A brief reference to Article 76 proves illuminating. The continental margin is defined in paragraph 3.

> The continental margin comprises the submerged prolongation of the land mass of the coastal state, and consists of the seabed and subsoil of the shelf, the slope and the rise. It does not include the ocean floor with its oceanic ridges or the subsoil thereof.

Key here is the exclusion of <u>oceanic ridges</u> from continental shelf delimitation. However, paragraph 6 introduces the concept of <u>submarine ridges</u> and grants the coastal state jurisdictional competence along them.

> On submarine ridges, the outer limits of the continental shelf shall not exceed 350 nautical miles from the baselines from which the territorial sea is measured. This paragraph does not apply to submarine elevation that are natural components of the continental margin, such as its plateaux, rises, caps, banks and spurs.

I am a little confused. On the one hand, in paragraph 3, we deal with and exclude from shelf jurisdiction the ocean floor and oceanic ridges. In the rest of Article 76 we define and delimit the continental land mass and margin. Oceans and continents -- that would seem to fairly well cover it. Apparently not. In addition, there is something called a submarine ridge. I find no definition, but whatever it is the coastal state may claim jurisdiction along it to a distance of 350 nautical miles.

One characteristic of MPS deposits is that they are almost always found along strike of the intermediate- and fast-spreading ridges of the Circum-Pacific Basin. An interesting legal question involves whether these spreading ridges are <u>oceanic</u> or <u>submarine</u>. For marine science the prospect of coastal state management of research to a distance of 350 nautical miles must be unsettling, particularly unsettling in light of the uncertainty surrounding discussions in the United States and other deep-water science states on the question of their own shelf delimitation. Yesterday we heard Ambassador Malone and others advocate support for the non-seabed provision of the treaty. In light of these brief comments, one hopes that

the impact of future decisions on the conduct of marine scientific research and access to important research areas is given appropriate account. Without a cautious, constrained, and calculated approach there exists a real possibility that important opportunities in the development of basic knowledge about the global ocean could be substantially lessened or even lost.

JOHN BARDACH: Reference was made to strange and rare metals that are likely to be in crusts or sulfides. It so happens that the last issue of Ocean Management (Volume 9, Nos. 1, 2, July 1984) with which I had something to do, states in a paper by P. Halbach that platinum occurs in crusts at a level of around 0.5g/t. Considering the politics of platinum occurrence, the level is not inconsiderable. This just an addendum.

CONRAD WELLING: This is, as I mentioned in the beginning, an indication that we are sure to find precious metals as a result of scientific exploration.

CAMERON WATT: This is a straightforward question of fact from a non-scientist directed to Professor Malahoff. Are these extraordinary sulfur-based life forms, which will obviously present the most severe problems to those who wish to exploit the active vents, also found around the vents which are no longer active and which have congealed together?

ALEXANDER MALAHOFF: That is a very good question. The animals disappear as soon as the hydrogen sulfide is turned off. In the hot vents this happens as soon as the hydrothermal cycle is destroyed, usually through faulting.

CAMERON WATT: There are, then, no environmental problems in exploiting these congealed vents?

ALEXANDER MALAHOFF: Correct. All exotic animals have gone and the usual animals you will find are just a few crabs, gorgonians, and the normal deep water corals.

DANIEL CHEEVER: You asked for a question, and I will ask any member of the panel how the common heritage -- that is, the seabed in the area beyond the limits of national jurisdiction -- can be reconciled with or implemented under, the doctrine of the freedom of the seas. It seems perfectly clear that the freedom of the seas doctrine is thoroughly unsuited to implementing the common heritage principle. I cannot see how legally, logically, or conceptually deepsea mining, whether it comes or not in the way we thought that it would ten years ago, can be authorized by a regime intended for totally different circumstances and activities. Deepsea mining requires exclusive property rights, licensing, and relative permanence of location. It exhausts resources, at least within a limited area. It is not a free good; it is not a common good, and high seas freedoms simply do not seem to fit with technology and the property rights that are required for seabed mining. A related question has to do with the involved interests. United States spokesmen refer constantly to interest and interested parties. The inference I have drawn is that only the capable states (and this came out in

Professor Reilley's comments) have interests. My query is: do not, under the common heritage and in the practical politics of today's world, the 120 or 130 non-capable states also have interests? Are they not in fact gravely affected, potentially speaking, by mining beyond national jurisdiction under the "freedom of the seas"?

CONRAD WELLING: I will use my prerogative as Chairman to address some of the questions that you have presented. In the first place, having represented the American mining community in the marine area, I can tell you that throughout our history of getting enabling legislation, the American Mining Congress has never opposed the payment of a royalty. Royalties are facts of life in the resource community whether it is oil or gas or land or whatever it may be. First, if the common heritage of mankind in our interpretation means a payment of royalty to the common good, we have no opposition to that. Second, I completely divorce myself from the Club of Rome concept of a limitation of resources. I think that the discoveries made on polymetallic sulfides indicate that in fact we have almost unlimited mineral resources, so it is not a question of robbing someone of a resource that is supposedly for the common good. I look at it more as the ability to develop the resource to be useful, because after development of a resource it remains there; no one has advantage of it. We gave most of our attention to acquiring the ability to develop the resources and the risk capital to do it. We had no opposition to a payment of royalty. What we opposed, from our own experience, was over-control that would inhibit development. That is the way we look at it.

JAMES JOHNSTON: I tried in my remarks to talk a little bit about the development process because I was concerned that we really have, from an economic perspective, an unrealistic view of the real promise of the common heritage of mankind. It seems to me that if you use the common heritage of mankind to deprive people of their resources and their technology, it cannot improve the condition of mankind. You have to recognize that the basic economic model that promotes economic growth is one of mutually beneficial exchange where property rights are well defined and enforced.

There is potential for seabed resources to augment the supply of natural resources from onshore, and these are crucial for the development process of most developing countries. Contrary to the popular belief, developing countries are not the major producers of hard minerals, they are increasingly the major consumers of hard minerals to the extent that they are successful in their own economic development.

Industrialized countries are simply replacing their capital base as it wears out. Developing countries are building their capital base anew as a way of stimulating their economic development. So the key toward a real, true common heritage of mankind, insofar as improving the lot of poor people of the world is concerned, has got to be an increase in the supply of raw materials, not a restriction on the supply.

DENNIS ARROW: I have a question which is partially legal and political but also partially technological. As I hear more about the sulfide crust and the problems with the technicalities and the economics of mining the nodules themselves, I wonder whether politically these crusts might not furnish an opportunity to break the deadlock on seabed mining which shows no sign, at least immediately, of abating. As nodule mining becomes economically less significant, at least by way of comparison with sulfide crust mining, isn't Part XI all that less significant a feature of the Convention, and wouldn't it be reasonable to consider whether or not Part XI might be severed entirely, given the economic problems with the metals markets and the availability of the metals involved from the sulfide crusts over the next few years?

CONRAD WELLING: I think that is mainly a political problem. Any comments?

MYRON NORDQUIST: The main point is that you are dealing more in theology than you are in economics. Had the common heritage really had great value, it wouldn't have been given away. Most of what is of value in the ocean has already been appropriated by coastal states and, as Bob Bowen indicated, I don't think that process is over yet.

DENNIS ARROW: My question is focused more on whether or not there is sufficient inducement to compromise in either direction so that forces on Part XI might achieve a critical mass in the near future. If the compromise forces are not there and if the economics of the situation encourage sulfide crust mining within the various economic zones as opposed to the deep ocean, isn't there at least a potential avenue for compromise without selling out principles one way or the other on Part XI itself?

CONRAD WELLING: For years I have said, "Bring to me the venture capitalist who would give me or lend me the money necessary to develop the resource, and then I will say that Part XI is now satisfactory," strictly from the point of view of a developer. If I cannot raise the investment capital and I do not have it myself, then from my point of view Part XI is unsatisfactory. It is as simple as that.

ROBERT BOWEN: If I understand correctly the question and the several assumptions that go into it, it is interesting. Here are the assumptions: you need an economic deposit inside national jurisdiction, you need an economic deposit of equal size and value outside of national jurisdiction, you need an economic enterprise such as a private corporation sponsored by a national government, willing to negotiate with both of the entities controlling those deposits for development rights. The line would then be, we (the economic enterprise) can help sponsor the common heritage of mankind if we get a better regulatory system outside of national jurisdiction than we are

currently being offered inside national jurisdiction. It seems like an interesting enough question; the assumptions get pretty convoluted, though.

JOEL PAUL: The assumptions are not that convoluted. The major developed countries already have sufficient incentives to ratify the LOS Convention for reasons such as the right of military free passage. If the resources within the EEZ prove to be more economical than the deep seabed resources, why should the developed countries balk at the restrictions on deep seabed mining in international waters? Some of the developed countries will go along with the Convention to secure the other advantages the LOS Convention affords.

FRED GOSS: I have a theological question. It seems to me that one of the major problems that has been discussed throughout the conference is how the mining companies are going to get their profits, how they're going to pay their bills. Since the refusal of the United States to participate in the Law of the Sea Conference, there seems to be a hardening of positions on both sides. If we look beyond the confines of the law of the sea, we can see that the world economic system has some very serious problems, mainly the debt of the Third World. One of the reasons that the Third World was willing to make the concessions that it did in the Law of the Sea Conference -- in terms of transit of international seaways through archipelagoes, the concessions on scientific research, and so forth -- was that they felt that deep seabed mining would enable them to get some money into their own treasuries. But now given the opposition to the deep seabed provisions of the Treaty, the Third World countries find themselves caught between a rock and a hard place. If they give many more concessions, they are not going to get anything back. Looking at the broader picture, my question is: what future do the panel members see for not only law of the sea negotiations but for international economic negotiations in general? We are all in this ship together. If the Third World defaults on their debts, it is going to create a chain reaction which could come back to haunt us. Not only will we not have enough money to explore the seabed, we are not going to have enough money for any development.

CONRAD WELLING: When in past years I attended the Law of the Sea Conference, there was an expectation among the Third World countries that mining of the deep seabed would help their economic situation. I made a study and published it, indicating that if ocean mining were successful beyond our wildest dreams -- and I used a figure of fifty large mining ships each mining three million tons a year and very profitably -- and if all the profits were given to the Third World, those profits would equal eighteen cents per capita per year. I think we have to look at hard numbers if we are talking about economic benefit to the world. It simply is not there. Ninety-five percent of all the known mineral wealth of the world is within the EEZ, and over 99

percent of that is petroleum. I think these are the facts of life that one has to look at in determining whether the development of the ocean is going to be of economic benefit. The availability of minerals and their upgrading and upvaluing will be of far greater benefit than the profit to be made from the mining of the material itself.

JAMES JOHNSTON: The late Harry Johnson, a distinguished economist, made a very important observation which is relevant here. He once said, "Whom the gods would destroy, they first endow with a central bank, and then the situation is further aggravated when central banks from various countries get together and form an international organization." I think that may be an underlying cause of the so-called Third World debt crisis.

Let me clarify the nature of the debt first, and I think we can get some insights from some previous remarks. The debt which has been built up is owed by just part of the Third World. Bank of America and other banking institutions have not been making loans to Bangladesh. They have been making loans to firms and to countries that are well endowed with natural resources, principally oil. Now with the Federal Reserve holding the supply tight in the midst of a robust investment-led recovery, there has been a deflation of the dollar and a depression of commodity prices. That in turn devastates countries that are raw-material producers and impairs their ability to repay their large loans.

Maybe we can take some encouragement from the last weekly money supply report that came out last Thursday evening. It showed that the money supply increased 7.8 billion dollars, which is a remarkable increase for one week. Now you should not conclude too much from just one week's change in the money supply. But I suggest that you look to see this next Thursday what happens. There is a possibility that the Federal Reserve is recognizing the error of its ways and is going to provide some relief, not only for commodity prices but also for developing countries. It might even improve the chances that developing countries can successfully repay their loans and we can forestall any future banking crises in the United States.

ALEXANDER KREM: I would like to add just a word or two regarding the Third World. We are off the tubs just a little bit but not much. I agree completely with Jim's point that it is not the size of the debt that's hurting the Third World right now, it is the interest rates surrounding that debt. I think he is right that central bankers are probably to blame for this. What you have to remember is that most of this money was used for infrastructural purposes. If in 1870 the French and the English asked America to repay all the money that it owed them, we wouldn't have been able to do it and we would have had an international debt crisis of equal proportion. What has happened now simply is that the debt terms have gotten very short and interest rates have gotten very high and people are

beginning to holler "Wolf!" You've heard enough of my comments to know that I am not a Pollyanna, but I am optimistic about this. I think that people are running a little scared now. It may be simply a way to pressure Congress into doing something, I am not sure, but the point of the matter is that the Third World debt is neither too large nor out of control.

BRIAN HOYLE: After listening this afternoon, I think we are unable to distinguish between law, policy, theology, and history. Let us have a history lesson for a moment. In the course of the law of the sea negotiations, those parts of the Convention known as the non-seabed provisions were effectively negotiated by the summer of 1977. The so-called straits provisions and marine scientific research were lost or gained, depending on one's point of view, by 1977. The seabed negotiations went on until 1982. There was no cross-trading among these subjects. In the Second Committee dealing with navigation and the traditional uses of the oceans, there was no North-South split. There was a law of the sea negotiation going on in the Second and Third Committees, somewhat less in the Third Committee than in the Second Committee, but there was an international economic negotiation, not a law of the sea negotiation, going on in the First Committee on deep seabed mining. No industrialized country, no developing country ever cross-traded straits transit for anything in deep seabed mining. No developing country ever gave up anything on marine scientific research. In fact, if anything, the industrialized countries simply lost it. Marine scientific research, as marine scientists have known it as a freedom of the high seas, has disappeared from the richest areas that they see. With it goes what you might call the academic freedom of the seas, too.

Now let us talk about law and policy for a moment, and theology. One keeps hearing about the common heritage versus the freedom of the seas to explore for and develop the resources of the deep seabed. As a matter of law, common heritage never had independent significance from the law of the sea negotiations. The consistent position of all industrialized countries was that the common heritage had to be filled out, given meaning, through the law of the sea negotiations. In 1967-1970, in the early stages of the Conference, common heritage was a slogan. The Spanish text uses the word patrimonio. In Spanish law patrimonio in a country means that the resources in situ belong to the government. The government will decree when those resources may be developed and by whom. Not one English-speaking country ever accepted the concept of patrimonio. Not one potential seabed mining country ever adopted or accepted the concept of patrimonio as applied to deep seabed resources. The air we breathe, the sunlight we receive are common heritage. It means nothing more than that we all are entitled to enjoy it. We in the United States and other industrialized countries are part of mankind, too. There seems to some notion that the developing countries own the common heritage of mankind and that with their permission we will exploit it.

Now, there is possibly some legal significance. Professor, now Judge, Jennings and Theodore Kronmiller, who wrote what I believe is still the most excellent work on the subject of deep seabed mining, say that common heritage may mean that there is an obligation to share benefits with the world. It does not mean that the resources of the deep seabed are locked up and may only be exploited with the permission of some international government. The seabed mining laws of the U.S. and of other countries that have legislated on the subject contain provisions for revenue sharing. That obligation has been accepted. But today the United States and other seabed mining countries have still not accepted that the common heritage of mankind has independent legal significance. It does not preclude the development of deep seabed resources.

The regime that still applies to the development of deep seabed resources is that of the freedom of the seas. And the freedom of the seas doctrine does not prohibit governments from granting licenses that are exclusive among their own nationals, nor does the freedom of the seas doctrine really prohibit granting exclusive licenses. There is nothing contradictory in the freedom of the seas doctrine. The freedom of the seas provisions as they are in the 1958 and 1982 Conventions and as they have evolved in history have always been exercised with reasonable regard for the interests of other states. Now it would be totally unreasonable for one state to license its nationals to go and infringe on the mine site of another state. So there is a system within existing international law for the granting of exclusive rights and licenses to mine sites, though it is quite another matter whether that license will be recognized by the international community.

I think we have to be very careful when we say the United States has accepted the common heritage. Sure, we accepted it as a principle which would have to be fulfilled in the future; we've never accepted it as being a legal concept.

EDUARDO FERRERO COSTA: I agree that we must remember history, law, and politics. But you know, history can be seen in different ways. If we want to make history, we also must mention certain basic ideas that were present in UNCLOS III and have not been mentioned by the previous speaker. For instance, the package deal agreement was a reality in UNCLOS III, and that is history. Kissinger's proposals for the parallel system are also history.

Good faith in negotiations is a principle of international law that has been forgotten by the current U.S. administration with regard to the content of the Law of the Sea Convention and the way it was written and approved. If we speak of history, we must mention all the history and not only a part of it. This could also be applied to some other comments made regarding the common heritage of mankind concept.

PETER BRUECKNER: I would like to pick up on an issue raised by Dan Cheever and by Eldon Reiley. The crucial question is

whether the freedom of the high seas includes the freedom to exercise exclusive rights. Might the principle of freedom of the high seas be mitigated by the concept of common heritage of mankind? It would be interesting to know more about the United States' interpretation of this concept. I agree with Professor Reiley that there is an open question here.

One test might be to look at the amendments put forth by the United States delegation in the spring of 1982, the so-called "Green Book." The Green Book did not touch upon the basic provisions of Part XI. The resolution of 1970 deals quite clearly with the principle that the resources of the deep seabed shall not be subject to appropriation by any means by states or persons. There must be some elements of this concept which are part of customary law and which mitigate the freedom of the high seas.

Brian Hoyle gave us a very general interpretation of the principle of the freedom of the high seas. As far as I could gather, he said that this freedom must be exercised with due regard for the interest of other states. However, the statement of principle also contains the phrase, "in their exercise of the freedom of the high seas." This brings me to a very practical question. What would be the position of the United States when next spring the PrepCom starts registering the first mine sites of the pioneer investors: the Soviet Union, India, Japan, and France? There is a risk of overlap between the mine sites to be registered by the Soviet Union and the mine sites claimed by the four consortia mentioned in Resolution II who don't want to avail themselves of its benefits. If the United States position is that the freedom of the high seas includes exclusive rights, would the United States be prepared to recognize the same rights for others?

My next question is addressed to those who spoke about the volatility of the Authority. Allow me to recall what the U.S. negotiator during the last phases of the UNCLOS, Leigh Ratiner, said about the Authority last year in Oslo. He said that maybe the Authority is a more stable entity than some foreign governments. I might also ask Mr. Welling: is the test really whether Part XI could provide a basis for financing of investments? Haven't we witnessed many cases where private capital has been able to adapt to developments in foreign countries, nationalizations, etc.? Don't you think that with some adaptations which the PrepCom or further negotiations could take care of, we might after all find a basis which might be acceptable?

CONRAD WELLING: Let me re-emphasize a point that I have made for a number of years: multinationals such as my and my partners' companies have invested in foreign countries. But working with one government is entirely different than working with this large committee.

We can talk about all the freedom of the seas, about a common heritage of mankind, and good men have different opinions on what those concepts mean. But there is no difference of

opinion among the people who want to develop the resource and the sources of capital. I will reiterate: once we have a Part XI that will allow me to attract the investment capital, then, as far as I am concerned, it is a satisfactory Part XI. But I can assure you at this stage of the game that the only way ocean mining can be developed under Part XI is through heavy subsidization by a country or a group of countries. The greatest resource limitation in the world is capital limitation. If you have a capital, you can develop the resources. And a waste of the resources is something nobody can afford. Your capital investment has to have fairly good assurance of providing more capital, because only by the growth of capital can we develop resources, no matter where they are. This point is completely lost on many people: Part XI must be favorable to the attraction of capital. At present I am almost sure that I would get a unanimous opinion that it will not attract investment capital.

My thanks to our very able panel.

PART V

AN EVALUATION OF THE U.S. FEDERAL-STATE EXPERIENCE IN THE MANAGEMENT OF MARINE AND COASTAL RESOURCES

INTRODUCTORY REMARKS

Edgar B. Washburn
Washburn and Kemp
San Francisco, California

Panel V is the first panel that really moves away from matters concerning the international order, international waters and international law and focuses on issues concerning the territorial seas and, in this instance, disputes between the United States in its relationship with its sovereign states such as California, Alaska and others. This relationship has been a stormy one and I believe will continue to be one of that nature. The prospect of significant economic benefits such as offshore oil and the difficulties in allocating the power to regulate it have fueled this controversy and will continue to do so. Certain analogies can be drawn:

(1) the issues that have created such disputes between the United States and the states (these disputes which have proven so difficult to solve on a national level where there exists a well-defined legal order and forum) and,
(2) the problems nations have had in dealing with each other (in establishing an international legal order and forum to deal with these same problems).

Our first speaker is Louis Claiborne, Deputy Solicitor General of the United States, who in his office represents the United States in its lawsuits before the United States Supreme Court. Louis is perhaps, in terms of cases argued before the Supreme Court, one of top five most active practitioners and perhaps the most successful. He tells me that his connection with the law dates back to graduation from Tulane Law School in New Orleans more than thirty years ago; it encompasses private practice in New Orleans serving as a state prosecutor; he taught in England where he became a barrister; and finally, for reasons that have not been disclosed, he returned to the United States to join the U.S. Solicitor General's office. His connection with the law of the sea is well documented. It begins in the late 1960s when he wrote and sometimes argued on behalf of the United States in the notorious Tidelands Cases involving disputes between Texas and Louisiana primarily concerning oil, but perhaps of greater significance, he represented fishermen in Norfolk, England against the local lord of the manor over musseling rights in the Wash.

I am struck always by the federal government's enunciation of its rationale, which is basically against the states and private individuals: all waters are the property of no one; it can be possessed by no one. On the other hand, on the international level the application of the same corollary is difficult to swallow.

Our second speaker is John Briscoe, who has a different view. John's first exposure to legal matters involving the sea occurred in 1972 when he and his client were roundly bullied by your chairman and some of his clients concerning litigation involving San Francisco Bay and Humboldt Bay. With that lesson in mind, John joined our firm in 1980 and has taken up the common cause since that time. He is a graduate of the University of San Francisco; he was Deputy Attorney General for the State of California; and he represented that state in its unfortunate and unsuccessful efforts with Mr. Claiborne and his client, the United States. John has recently taken up the cause of what we hope to be a much more fruitful endeavor and that is the State of Alaska in its efforts to establish that Dinkum Sands is indeed an island.

Then we will shift our focus to the efforts of the federal government to regulate the environment in the territorial seas and in fisheries management. Our third speaker is Robert McManus. Bob is General Counsel for the National Oceanic and Atmospheric Administration and has held that post since 1981. He received his Bachelor's degree in Economics from Yale in 1961 and his law degree from that same school in 1968. After being in private practice for a number of years, he was an attorney for the Environmental Protection Agency and in that capacity served as the U.S. representative to the United States law of the sea negotiations. As a representative of the United States he has also participated in a number of other international negotiations in the areas of environmental control of matters affecting the seas. He points out that he was also a participant in the 1972 London Ocean Dumping negotiations and I am advised by Louis Claiborne that that coincidence was not related to Louis's departure from the practice of law in England around that time. Bob will elucidate the federal government's point of view on the regulation of the seas for environmental concerns.

When we have exhausted our supply of attorney speakers, we will focus on economics, and our last speaker is Dr. James Crutchfield, a world-recognized fisheries economist. He is the chairman of the Pacific Fishery Management Council, a professor at the University of Washington, and holds a Ph.D. in Economics from the University of California.

We have three commentators. The first is Jan Schneider, who graduated from Yale Law School in 1973 and received a Ph.D. in Political Science from the same university in 1975. She is a practicing lawyer in Washington, D.C., specializing in boundary problems between states. She has informed me that she cannot use the word "boundary" so I use it for her. This apparently stems from her involvement in the dispute between the United States and Canada over their boundaries.

Our second commentator is George Hauck, an associate professor of law at the University of Puget Sound and graduate of the University of California School of Law in 1971. I cannot help but comment that in his lengthy resume he has one activity that I do not know quite how to explain: he was the traveling

fellow for the University of California in 1972. If we all could have that type of job, I think life would be much more pleasant.

Our final commentator is Tom Koester, who since 1979 has been the supervising attorney of the Natural Resources section for the Attorney General's office for the State of Alaska. He graduated from California Western Law School in 1975. Tom assures us that he will comment with impartiality upon the papers given today.

FEDERAL-STATE OFFSHORE BOUNDARY DISPUTES: THE FEDERAL PERSPECTIVE

Louis F. Claiborne
Deputy Solicitor General of the United States [1]

In our federalist system, disputes between the nation and the states of the Union are all too common. Given our extraordinary inclination to resolve most public disagreements judicially, it is never surprising to find the courts invoked. Even so, the resources of the seabed off our coasts need not have become such an object of controversy. Moreover, the points of disagreement might have been resolved long ago. It is my task to recite the long tale that tends to explain why there is any question of a federal-state boundary in respect of offshore submerged lands, and why some fifteen full opinions of the Supreme Court over half a century have not completely answered it. When the story is at length told, I shall indulge a fond hope that the Court shortly will bring this litigation to a happy end.

UNFORTUNATE BEGINNINGS: A WRONG START DISTORTS THE RESULT

From the federal perspective, it is perfectly obvious that the beds of navigable waters, inshore and offshore -- traditionally the arteries of interstate and foreign commerce impressed with a federal navigational servitude -- belong, if to anyone, to the nation rather than the individual states. Had that been understood at the beginning, we could have avoided all the legislation and litigation of the past forty years concerned with fixing a dividing line between federal and state water bottoms. But, alas, our Supreme Court went astray in the 1840s and that has caused problems since the 1940s.

The Court's basic instinct was sound enough. In the first case, Martin v. Waddell, 41 U.S. (16 Pet.) 367 (1842), the Supreme Court followed English common law and ruled that, in principle, the beds and banks of tidal or navigable water bodies are not privately owned but are held by the sovereign for the benefit of the public. The question of which sovereign, state or nation, was never debated. The Court simply assumed the state, here one of the original thirteen, was the appropriate sovereign because the prerogatives of the English crown passed to it at independence, before the Union was more than an alliance. The Court never inquired whether this sovereign prerogative -- like the foreign relations power or the interstate and foreign commerce power -- passed to the federal government upon adoption of the Articles of Confederation in 1781 or the Constitution in 1789. It was a full century later before this question would be asked and, by then, too much water had gone over the dam.

The Court's next mistake was to apply this false doctrine of state ownership of navigable water bottoms to states admitted

after the Constitution. That was done in the dubious case of Pollard's Lessee v. Hagan, 44 U.S. (3 How.) 212 (1845). The rationale was truly remarkable: while the area was part of a territory, such water bottoms were held by the United States, but in trust for the future state, to whom they would in normal course inure when the state was admitted to the Union upon "an equal footing" with the original states. No doubt, the equal-footing principle assures all states the same governmental powers, including whatever regulatory authority states may exercise over navigable waters. But it has nothing to do with land ownership -- else the federal government constitutionally could not have reserved to itself title to public lands in the western states when the eastern states owned the public domain. It seems nonsense to say that the equal-footing doctrine reaches submerged land but not upland. Yet, that is in effect what the Court held [2].

These early cases and their progeny down to 1947 involved rivers [3], lakes [4], harbors [5], enclosed bays [6] -- all clearly inland waters. But, logically enough, the general assumption -- shared by federal and state officials alike and apparently by all courts, including the United States Supreme Court -- was that the rule of state ownership of bed and banks applied to all navigable waters within the state's boundaries, which explicitly or implicitly encompassed a belt of marginal sea in the case of coastal states. See United States v. California, 332 U.S. 19, 27, 36-38, 39-40 (1947); Id. at 43 (Reed, J., dissenting); United States v. Louisiana, 363 U.S. 1, 16, 17-18, 23-24 & n.30; Id. at 94-95 & n.18 (Black, J., dissenting). As later events would show, the momentum of this long-held view ultimately was irreversible.

To be sure, the assumption was not really tested throughout the nineteenth century and through the first two decades of the twentieth, since, during that time, the rich oil and gas reserves of the seabed and the techniques for extracting them were barely known. What questions arose as to the sway of federal or state governments over offshore areas involved the power to regulate -- usually fishing -- not ownership of the seabed, e.g., Manchester v. Massachusetts, 139 U.S. 240 (1891); The Abbey Dodge, 223 U.S. 166 (1912); Skiriotes v. Florida, 313 U.S. 69 (1941). See, also, Toomer v. Witsell, 334 U.S. 385 (1948). Significantly, however, there was continuing acceptance of state ownership for many years after oil was being taken off the California coast. It was only in the late 1930s that the executive branch of the federal government began to rouse itself to assert any claim to the bed of the territorial sea. See United States v. Louisiana, supra, 363 U.S. at 95 (Black, J., dissenting); United States v. California, 381 U.S. 139, 180, 186 (Black, J., dissenting) (1965). Even that was merely tentative. See S. Rep. No. 133, 83d Cong., 1st Sess. 54-55 (1952). The really unequivocal claim came with our lawsuit in 1945, and, politically, that was too late.

THE U.S. GOES TO COURT, TIMIDLY: THE FIRST "TIDELANDS" CASES [7]

The United States filed suit against California in October 1945, invoking the Supreme Court's original jurisdiction. Although President Truman had just issued the Proclamation of September 28, asserting exclusive rights in the bed and subsoil of the entire continental shelf, no reliance was placed on that action [8]. The prayer was relatively modest: the United States claimed ownership of, or alternatively "paramount rights" in, the lands and minerals underlying a three-mile belt of the ocean beginning at the low water mark or the seaward edge of "inland waters." Presumably, we sought a judgment covering only three miles of continental shelf because our controversy with California was confined to the first three miles [9].

More important, however, was our express concession to California of the soil and resources underlying offshore "inland" waters and tidelands. Precedent and politics perhaps counseled that we give way to this extent, but there was no logic in it, as we then told the Court [10]. Especially odd was the position that our title to the water bottom ended at low tide, contrary to the usual rule. No prior case had expressly recognized state ownership of tidelands on the open coast -- and the Court seemed to view our concession on this point as surprisingly generous, referring to the federal government as accepting state ownership of "even tidelands down to the low water mark." 332 U.S. at 30 [11].

We won all we asked for -- albeit our claim to exploit the mineral resources of the marginal sea was sustained in the name of "paramount rights," rather than proprietorship. This led Justice Frankfurter, in dissent, to ask how the undisputed "paramount rights" of the national sovereign to regulate this three-mile zone could translate into title to the minerals in the soil. See 332 U.S. at 44-45. The same dissenting opinion pointed up another problem with the Court's decision, which seemed to deny California's title on the ground that, not being yet invented, the three-mile territorial belt had not inured to the original states, but never quite explained how the federal government acquired its paramount rights there or why the belt when established did not pass to the states. The Court's reliance on questionable history and a dubious application of the equal-footing doctrine was unfortunate. But the basic theme of the decision was sound: that the constitutional allocation of powers between federal and state governments suggests federal control of the marginal sea, including the underlying submerged lands. It is no argument against this proposition that it could -- and should -- also encompass bays and harbors and, indeed, interstate rivers.

Needless to say, the California decision did not win universal acquiescence. Even before the Court ruled in 1947, both houses of Congress had sought to moot the case in favor of the states, but President Truman had vetoed the joint resolution. See 332 U.S. at 28. The Court had been divided in United States v. California and was more so in the immediately

subsequent cases. Louisiana and Texas sought to distinguish the California decision as inapplicable to the oil and gas leases they were granting in the Gulf of Mexico. Accordingly, separate suits had to be filed against those states and, unsurprisingly, they fared no better than California. United States v. Louisiana, 339 U.S. 699 (1950); United States v. Texas, 339 U.S. 707 (1950).

The Louisiana decision involved nothing really new, except only an explicit recognition that federal "paramount rights" in the continental shelf were not limited to the three-mile territorial belt. See 339 U.S. at 705-706, and the Decree, 340 U.S. 899 (1950). The Texas decision, however, must be counted something of a tour de force. The Court assumed that Texas, as an independent republic, enjoyed a territorial sea belt, but held that this was relinquished to the United States when Texas was annexed and admitted to the Union on "an equal footing" with the older states. 339 U.S. at 717-718. Since they owned no part of the marginal seabed, Texas could not either -- regardless that its political boundary might continue to extend nine or more miles into the Gulf. Id. at 718-720.

These decisions, it should be stressed, located no specific boundary line between federal and state water bottoms. Since state title to the submerged lands underlying "inland waters" had been left undisturbed, it might well be necessary in due course to resolve disputes as to the actual "coastline," especially where it followed the seaward limit of such inland waters, notably bays and harbors, and the Court accordingly retained jurisdiction of the cases. See 332 U.S. 804, 805 (1947); 334 U.S. 855 (1948); 337 U.S. 952 (1949); 340 U.S. 899, 900 (1950); 340 U.S. 900, 901 (1950); 342 U.S. 891 (1951). As it turned out, many of the states have been very disputatious and the task of fixing the coastline is still far from finished. But, in the meanwhile, Congress intervened and we must turn to that.

CONGRESS WEIGHS IN FOR THE STATES AND THE COURT YIELDS

We have already noticed that, as early as 1946, the Congress sought to confirm in the coastal states title to the marginal seabed, but that the President vetoed the measure. A similar proposal passed both houses in 1952, but, again, was vetoed. See United States v. Louisiana, 363 U.S. 1, 6-7 n.4 (1960), giving a full history of proposed legislation on the subject. The next year, however, Eisenhower having replaced Truman, the new administration -- as promised during the electoral campaign -- offered no resistance and the Congress got its way. See United States v. California, 381 U.S. at 188 n.23 (Black, J., dissenting). By now, moreover, the most active proponents of the legislation, Texas and Louisiana, had convinced many interior states with no stake in the seabed that the federal government was threatening their traditional title to inland water bottoms and that this must be met by an express legislative declaration of state rights. And so, the Submerged

Lands Act was enacted in 1953 -- shortly followed by the complementary Outer Continental Shelf Lands Act which asserted exclusive federal rights in the portions of the shelf not relinquished to the states. 42 U.S.C. 1301-1303, 1311-1315 (Submerged Lands Act of May 22, 1953, ch. 65, 67 Stat. 29); 43 U.S.C. 1331-1343 (Outer Continental Shelf Lands Act of Aug. 7, 1953, ch. 345, 67 Stat. 462).

The Submerged Lands Act is, for the most part, a straightforward cession to the coastal states of the federal rights to the resources underlying the marginal sea sustained in the first California case [12] -- together with a seemingly unnecessary confirmation of state title to the bed and banks of navigable or tidal inland water bodies. In the Atlantic and Pacific Oceans, the seaward limit of state ownership is fixed at three nautical miles from the "coast line," defined as the low water line of the shore or the line delimiting "inland waters." But, in the Gulf of Mexico, the grant extends -- up to a maximum of nine miles from the present coast line -- to the boundary existing when the state was admitted to the Union or a boundary otherwise approved by Congress. This is a most unusual provision, since it denies to the Atlantic and Pacific states the opportunity afforded to the Gulf states to prove "historic boundaries" exceeding three miles from the coast.

The constitutionality of such a blatant discrimination may well be doubted -- especially after the Court had held that the equal-footing doctrine forbade conceding to Texas a marginal seabed claim denied to the original states. Indeed, when the Submerged Lands Act came to be challenged in the Supreme Court by Alabama and Rhode Island, Justice Douglas (the author of the first Texas decision) made this point. See Alabama v. Texas, 347 U.S. 272, 282-283 (Douglas, J., dissenting) (1954) [13]. What is more, it is not clear why the equal-footing principle -- assuming it applies in this context, as the Texas case held -- does not prevent the coastal states (even if equal among themselves) from becoming the special beneficiaries of the law to the detriment of the other states, who presumably would share, to some degree, in federal revenues derived from the territorial sea. Both Justice Black and Justice Douglas so argued in dissent. See 347 U.S. at 277-278, 282-283.

The more fundamental question, however, was whether Congress could put asunder what the Constitution had joined together. Remember that the Court had ruled in favor of federal rights in the marginal seabed because the Constitution vested in the national government special powers and responsibilities over this area. The minerals underlying the territorial sea and beyond appertained to the United States not as mere acquired property, but, rather, as a matter of sovereign prerogative. Were such rights freely disposable under the Property Clause or constitutionally inalienable? Again, Justice Black and Douglas made a strong case against the validity of the Congressional grant [14]. But the Court's majority sustained the Submerged Lands Act and a second opportunity to limit federal-state controversies was lost.

TWO OUT OF FIVE: TEXAS AND FLORIDA WIN NINE MILES, THE OTHER GULF STATES ARE HELD TO THREE

The states bordering the Gulf of Mexico were not slow to claim entitlement to the maximum nine-mile marginal sea belt, and, in the case of Louisiana, the "coastline" or baseline from which the belt would be measured was declared to be many miles offshore. La. Act 33 of 1954; see Louisiana Boundary Case, 394 U.S. 11, map following p. 78 (1969). Even Alabama now joined the bandwagon. That state had only recently challenged the constitutionality of the Submerged Lands Act, partly on the ground that, unlike Texas and Florida, it could claim no more than a three-mile belt because its boundary was so defined upon admission to the Union. See Alabama's Complaint in No.__, Orig., O.T. 1953, Alabama v. Texas, paragraphs XI, XIV, XVII, XXXIV(B), XXXVIII(5); Brief in Support of Motion for Leave to File Complaint in the same case (filed 26 September 1953) 7-8, 11, 15, 17-18, 63-66. But, having failed in that attempt, Alabama changed its tune and asserted an "historic" maritime boundary six leagues from shore -- albeit only nine miles could be claimed. See United States v. Louisiana, 363 U.S. at 5, 66-67 n.108, 82. Nor did all the states wait for judicial vindication. Louisiana, at least, resorted to self-help, granting leases more than three miles from shore until enjoined by the Court. See 351 U.S. 946, 978 (1956) [15].

It is only fair to say that this was a period when everyone was testy, including the United States and the Court itself. We began by moving the Court to modify the 1950 decree in the Louisiana case simply by conceding three more miles to the state, suggesting that Louisiana could not remotely establish a more expansive admission boundary. The Court abruptly denied leave to file the motion, pointlessly requiring us to file a new lawsuit. 350 U.S. 812 (1955). We complied. See 350 U.S. 990 (1956). Louisiana, as well as some of its subdivisions and lessees, exhausted every expedient to block or delay resolution of the dispute in the Supreme Court. See, e.g., 351 U.S. 978 (1956); 352 U.S. 812 (1956); 352 U.S. 885 (1956); 352 U.S. 979 (1957); 353 U.S. 903 (1957); 353 U.S. 928 (1957). The matter was first argued in April 1957, but the Court ordered the case expanded to include the other Gulf states. 354 U.S. 515 (1957). We obeyed. There were still further delays and postponements. See 355 U.S. 859 (1957); 355 U.S. 876 (1957); 355 U.S. 945 (1958); 356 U.S. 928 (1958); 358 U.S. 902 (1958); 359 U.S. 901 (1959). At length, the case was re-argued in October 1959. Even then, additional briefing was allowed, see 361 U.S. 802, 872 (1959), and the decision was not announced until 31 May 1960. 363 U.S. 1.

The Court first rejected the extreme arguments advanced both by the states and by the United States. It was deemed obvious that the Submerged Lands Act did not itself confirm any grant beyond three miles, but merely afforded the Gulf states an opportunity to establish such an "historic" boundary up to nine miles from the coast. 363 U.S. at 12, 13, 25. More debatable

was the Court's further holding that a pre-admission boundary beyond three miles must be shown to have been endorsed by Congress. Id. at 13-14, 30, 35-36. With equal firmness, however, the Court declined to accept our somewhat arrogant submission that any recognition of state boundaries beyond three miles would be inconsistent with the past and present international stance of the United States as formulated by the executive branch and, for that reason alone, must be avoided. Id. at 11-12, 30-36, 51. Without deciding the point, the Court suggested that a state boundary more than three miles from the coast, effective for purposes of the Submerged Lands Act and perhaps for other domestic jurisdictional purposes, could be viewed as having no international consequences and therefore as consistent with a national territorial sea claim limited to three miles, accompanied by United States assertion of seabed rights to the edge of the continental shelf. Id. at 35-36.

Applying these principles to the situation of the five Gulf states produced considerable division within the Court -- requiring two opinions, one by Justice Harlan covering Louisiana, Texas, Mississippi and Alabama (363 U.S. 1), the other by Justice Black dealing with Florida (363 U.S. 121). The author of each majority opinion dissented in the other case, Justice Black believing that all five Gulf states were entitled to a nine-mile belt (363 U.S. at 85 ff.) while Justice Harlan would have recognized such an expansive grant for Texas alone (Id. at 132 ff.). Justice Douglas, on the other hand, thought only Florida had proved its case. 363 U.S. at 101 ff. Finally, the four other participating justices (two being recused) felt compelled to explain why they joined Harlan's Louisiana opinion and Black's Florida opinion. Id. at 129 ff. The upshot was that Texas and Florida successfully established nine-mile boundaries while the intervening three states failed.

Alas, we were still a long way from plotting a boundary. The Court pointedly did not resolve any question about the "coastline" from which the three and nine mile belts were to be measured. 363 U.S. at 66-67 n.108, 82 nn. 135 & 139. Substantial further proceedings would be required on that score, and, indeed, the matter is not yet settled in the case of Mississippi and Alabama.

CALIFORNIA AGAIN: THE COURT GOES INTERNATIONAL

Back in 1947 (as we have detailed), the Court had decided that the United States, rather than California, had the exclusive right to exploit the resources of the seabed underlying the three-mile belt of marginal sea. The decree entered the same year defined the "coastline" where that belt began as the low water line or the seaward limit of inland waters. 332 U.S. 804, 805. But, as in the case of the Gulf states, the parties did not agree as to what constituted "inland waters" and the Court left the matter entirely unresolved [16]. Accordingly, further proceedings were required and the Court, following California's suggestion, appointed a Special Master

for that purpose in mid-1948 -- who promptly died and had to be replaced by another Master in early 1949. There was a great deal of controversy between the parties and equivocation by the Master and the Court as to the proper function of the Master -- then still a relatively recent luxury [17]. See, e.g., 334 U.S. 855 (1948); 337 U.S. 952 (1949); 341 U.S. 946 (1951); 342 U.S. 891 (1951); 344 U.S. 872 (1952). In the end, however, the Special Master filed a report recommending specific rulings on all disputed points, mainly favorable to the United States. See 381 U.S. at 144-145 n.6.

That was 1952. No sooner had the parties filed their Exceptions to the Master's Report than Congress enacted the Submerged Lands Act. This brought a halt to the judicial proceedings for a decade. To be sure, the statute only moved the federal-state boundary three miles and, in principle, the starting point of the three-mile belt still needed to be located -- especially where it was the seaward limit of inland waters. But, as a practical matter, there was no urgency in resolving these questions because existing technology did not permit oil drilling in the very deep water beyond the marginal sea of California, even as we conservatively defined it. See 381 U.S. at 148.

In 1963, deep water drilling having become more feasible, we sought to revive the proceedings. See 381 U.S. at 149. This provoked a furious and silly argument over whether the 1945 case was now dead or merely dormant. Among other things, California contended our suit had lapsed for lack of prosecution; we responded that in the interim we had sought an amicable settlement of the dispute; and California rebutted by denying that any negotiations leading to a permanent resolution of the federal-state boundary had taken place [18]. Having apparently learned something from its experience with the Gulf states litigation, the Court cut through the debate, allowed our Supplemental Complaint to be filed, and invited the parties, if they wished, to amend or add to their Exceptions to the Special Master's 1952 Report in light of intervening events. 375 U.S. 927 (1963). And so the case was briefed and argued and, for the first time, the Court itself tackled the particulars of coastline delimitation.

One of the more unusual aspects of these submerged land boundary cases is the number of changes of position indulged by all concerned without apparent embarrassment. This applies to the states, to the United States, to individual Justices (especially Black and Harlan), and to the Court itself. The California litigation was no exception. Indeed, in that one case, the federal government argued, at various stages, that the coastline, and especially the limit of inland waters, ought to follow the foreign policy position of the United States (a) as it was at the time the original states formed the Union [19], (b) as articulated in proposals made at the 1930 Hague Conference for the Codification of International Law [20]; (c) as it existed on the date the Submerged Lands Act became effective (22 May 1953) [21]; or (d) as it would be on the date of the entry of a supplemental decree fixing the coastline [22].

So also, the Court -- including Justice Harlan as its spokesman -- was equally guilty of inconsistency. As we have noted, the 1960 decision in the Gulf states litigation rejected the government's objection to a nine-mile marginal sea for Texas, despite our foreign policy stance of a uniform three-mile territorial sea, on the ground that the Submerged Lands Act was purely domestic legislation. Yet, now in 1965, the Court found that Congress had left it free to adopt the subsequently framed international Convention on the Territorial Sea as defining "inland waters" for the purpose of measuring the Submerged Lands Act grant to the states. See 381 U.S. at 150-167. The anomaly of Texas and Florida was simply not mentioned. Perhaps the Court rationalized that the Convention left it to each nation to determine for itself the width of the belt of the territorial sea up to twelve miles, and to choose three miles generally and nine miles off particular coasts. That is not, however, the actual stance of the United States: then and now, we define the national territorial sea off Texas and the Gulf coast of Florida as a belt of only three miles measured from the current coastline, and we view the additional grants to Texas and Florida as justified by virtue of our more extensive continental shelf and fisheries jurisdiction [23].

But whether or not wholly consistent with prior decisions or entirely faithful to the intent of Congress, there is no gainsaying the virtues of the Court's decision to import the Convention rules in measuring the Submerged Lands Act grant. Primarily, there are now relatively clear and fixed standards to apply in locating the coastline. For the most part, the states gain from recognition of larger bays -- up to twenty-four miles wide, compared to the maximum ten miles we recognized in 1953. 381 U.S. at 163-164, 169-170. Yet, the federal government retains absolute discretion to eschew or adopt a straight baseline system and a considerable voice in disclaiming so-called "historic" inland waters. 381 U.S. at 167-169, 172-175. We lost our argument that man-made or artificially-caused extensions of the mainland -- at least after 1953 -- did not affect the coastline; but, in return, the Court at least implicitly recognized our right to condition permission to construct such extensions on the state's waiver of any Submerged Lands Act benefit. 381 U.S. at 176-177. See, also Louisiana Boundary Case, 394 U.S. 11, 40-41 n.48 (1969) [24].

One might have supposed that henceforth there would be only occasional and very narrow disputes between state and nation over their submerged lands boundaries. No doubt, the Court hoped it had disembarrassed itself of a very burdensome category of cases. Not so. The sums actually or potentially at stake, and local patriotism, have pushed many of the states to continue the "good fight." And, needless to say, the ingenuity of lawyers did not fail to conceive ways around what were thought to be clear and settled rules. The upshot has been more litigation of this kind since 1965 than in the previous two decades.

THE SAME CONVENTION RULES APPLY ON EVERY COAST: THE COURT WILL NOT BE MOVED

The first controversy to arise after the second California decision of 1965 involved Texas and produced, once again, strong disagreement between Justices Black and Harlan. United States v. Louisiana, 389 U.S. 155 (1967). The question was whether the nine-mile "historic" boundary recognized for Texas under the Submerged Lands Act should be measured from artificial jetties constructed after statehood. Justice Harlan agreed with Texas that the California decision, adopting the Convention rules, required an affirmative answer. See 389 U.S. at 163 ff. But the majority, in an opinion by Justice Black, held (as we had alternatively argued) that the nine-mile boundary was fixed as of the date of admission which obviously could not have been measured from then non-existent structures projecting from the coast. 389 U.S. at 159-161 [25]. At the next term, however, the Court applied the modern, ambulatory, coastline rules for the purpose of locating the maximum limit of an "historic" boundary claim, which the Submerged Lands Act fixes at nine miles. Texas Boundary Case, 394 U.S. 1 (1969). This time, Justice Black dissented, echoing Texas' plaint that the United States position amounted to saying "heads I win, tails you lose." 394 U.S. at 6, 9.

But all this was mere skirmishing compared to the effort mounted by Louisiana to avoid the force of the California decision. That state primarily invoked as its "coastline" a line many miles out to sea drawn by the Coast Guard to fix the area where the so-called "inland water rules" must be followed by incoming vessels. See p. 17, supra. Since that line could not remotely satisfy the normal rules of the Convention on the Territorial Sea, it was variously argued that the peculiarly impermanent character of the Louisiana coast required a different standard, that Congress had effectively so determined in sanctioning the line proposed, and that the promulgation of the Coast Guard line constituted an effective claim of "historic inland waters" for the area inside the line [26]. In due course, the Court resisted these several pleas -- Justice Black, joined by Justice Douglas, again dissenting. Louisiana Boundary Case, 394 U.S. 11, 17-35 (1969).

Nor was this all. The Court had to consider -- and reject -- Louisiana's contention that, in its special case, the federal government had no option other than to draw straight baselines, especially in light of earlier concessions. See 394 U.S. at 60-74. So, also, Louisiana unsuccessfully argued that dredged channels -- extending far beyond any above water harbor works -- constitute part of the coastline. See 394 U.S. at 36-40. One wishes the Court had been as unequivocal on all matters. But, alas, the even-handed opinion left a few openings which have invited all too much subsequent litigation.

One such point pertains to "historic waters." Expanding and qualifying the discussion in the second California decision, the Court now observed that state assertions of jurisdiction, at

least if not contemporaneously repudiated by the federal government, are relevant in establishing a claim to historic waters, and the Court further held that a federal disclaimer must be deemed ineffective as to any historic title that has already ripened. See 394 U.S. at 77-78. This was calculated to encourage state historic claims -- and it has.

Equally productive of future litigation was the Court's discussion of Louisiana's attempt to treat islands as extensions of the mainland. Although all such claims -- where we disputed them -- were in fact rejected, the Court's apparently hospitable language on the subject of assimilating islands to the mainland mass has tempted several states to promote some of their offshore islands as sufficiently integrated with the mainland to justify treating them as extensions of it -- usually to qualify as the headland of an otherwise non-existent bay.

This temperated style was soon abandoned, however. After the meticulous thoroughness of the opinion in the Louisiana Boundary Case -- summarizing and weighing all the arguments, citing every available authority, and announcing a comprehensive judgement on a host of points -- the Court seems to have got bored or impatient with these cases. Having five years earlier referred to a Special Master the claim of all the Atlantic states that the first California decision ought to be reconsidered, the Court in 1975 somewhat perfunctorily reaffirmed itself, holding that the rule governing on the Pacific coast equally applied on the Atlantic side. United States v. Maine, 420 U.S. 515 (1975). At the same time, the Court summarily affirmed its Special Master's ruling in the Louisiana case, warts and all. United States v. Louisiana, 420 U.S. 529 (1975). And, after a brief remand, Florida's attempt to establish an inland bay defined on one side by the Florida Keys was rejected with equal lack of ceremony. United States v. Florida, 420 U.S. 531 (1975); 425 U.S. 791 (1976).

The only case of this period to receive more elaborate treatment was the controversy involving Cook Inlet in Alaska -- which we had initiated in a District Court, thinking to spare the Supreme Court, but earning a rebuke instead. See United States v. Alaska, 422 U.S. 184, 186 n.2 (1975). Here the Court wrote a full opinion, reversing the holding of both lower courts in favor of Alaska's claim to a "historic bay." The ultimate message, however, seemed to be, as before, that "historic" claims are not favored. By now, California, Louisiana (twice), Florida and Alaska had all failed in the attempt to prove a historic bay. But, alas, the issue has not been laid to rest. Nor have the states failed to raise new questions which require resolution by the Court.

Most probably, the Court was disappointed that the cases did not go away. For the east coast, Justice White, on behalf of a unanimous Court in the Maine case, had administered what seemed a swift and ungloved knockout punch to the pretensions of the older states. Writing for a not quite unanimous Court in the Alaska case, Justice Blackmun had defeated a more recent west coast claim with more polite, and patient, prose, but with

equal finality, one might have thought. And, on the Gulf Coast, the Court's anonymous per curiam's in the Louisiana and Florida cases were such rude rebuffs that only the bravest and shameless would be expected to return. And yet, as we shall see, no one was frightened off: on every coast, new cases emerged. Some may despair, but I believe the Court may yet find the formula to end the litigation. Indeed, to be helpful, I shall presume to propose one approach in a moment.

THE 1980S: VARIATIONS ON THE SAME THEME

How many ways can one push out the coastline, and therefore the seaward edge of the three-mile belt? In the view of the United States, there are no straight baselines off our coasts and only one body of historic inland water -- Long Island Sound, narrowly defined. Accordingly, we assert that the coastline consists of (1) the low-water line on the open coast and around islands and qualifying low-tide elevations [27], (2) lines crossing river estuaries emptying into the sea [28], and (3) lines closing "juridical" bays, i.e., indentations that meet the criteria of Article 7 of the Convention on the Territorial Sea. Of course, we accept the Court's somewhat expansive gloss on these rules. One example, as we have noted, is that, in the unusual case of the two daily Pacific tides, the mean lower low water line governs. Similarly, in the same California case and the subsequent Louisiana Boundary Case it was held that artificial extensions to the mainland are part of the coastline, whether induced accretions, filled land, or projecting structures, at least if shielding a harbor or protecting against erosion of the coast. See United States v. California, 381 U.S. at 176-177, 382 U.S 448 (1966), 432 U.S. 40 (1977); Louisiana Boundary Case, 394 U.S. at 37 n.42, 40-41 n.48, 49-50 n.64. But the states have not been content to rest on such minor victories.

Thus, although the Court had ruled, in the Florida case, that bridges did not form part of the coast so as to make the Keys an extension of the mainland, California was not deterred from claiming open-work piers as part of the coastline. Unsurprisingly, the Court rejected that attempt to push out the baseline of the three-mile grant. United States v. California, 447 U.S. 1 (1980) [29]. Nor have several states been discouraged from advancing their own claims to "historic" inland waters. Massachusetts has only recently concluded its submission to a Special Master in respect to Nantucket Sound and Vineyard Sound. And Mississippi and Alabama have just succeeded -- subject to Supreme Court review -- in persuading a Special Master that Mississippi Sound qualifies as historic inland water.

Even more surprising, straight baseline claims remain in vogue. As an alternative basis for asserting the inland status of Mississippi Sound, Mississippi and Alabama insist that the United States has in effect long drawn straight baselines anchored on the barrier islands and cannot now abandon that

stance. Alaska makes a similar argument in pending litigation involving the submerged lands between the mainland shore of the North Slope and the barrier islands in the Beaufort Sea -- except that here the drawing of straight baselines is attributed to Congress and not merely the federal executive branch. Alaska also advances the novel contention that the Submerged Lands Act contemplates a single continuous state boundary, which must encompass the islands and the intervening waters and does not tolerate interior federal "enclaves" of seabed.

Equally disturbing is the continuing prevalence of claims that islands close to shore ought to be treated as extensions of the mainland, thereby creating a bay. Indeed, we are presently asking the Court to disapprove the recommendations of two Special Masters accepting such arguments. In each instance, there is a new twist. The Master in the Rhode Island and New York case, involving the status of portions of Block Island Sound, found that Long Island should be assimilated to the mainland primarily because that would create a juridical bay out of the landward waters -- which "looked" like a bay, but would not qualify unless Long Island were viewed as an arm of the mainland mass. This backward reasoning did not appeal to the Master in the Mississippi-Alabama case, but he invoked an equally unsound basis for treating an island as part of the mainland, and therefore as the headland of a bay. His justification is that the island in question is connected to the land mass by inland waters, which ought to be deemed land! The same Master had rejected this contrived proposition a decade earlier in the Louisiana case. But now, for reasons unexplained, he found it more persuasive.

Finally, and perhaps most interesting, is the argument put forward by Alaska in respect of the formation known as Dinkum Sands. The state submits it should be deemed a true island, generating a three-mile belt of marginal sea around it, even if the formation is for most of each year below the level of mean high water and even if the room-size shelf that emerges a few inches for a few months (assuming it ever does) is so mixed with ice that, if melted, the protruding layer would sink below the surface once again. Now that takes courage!

These are the current issues. But there is no reason to believe the states have exhausted their inventory. Even if the states now or recently at bat want a rest, there are many potential claimants waiting in the wings whose coastline has not been judicially fixed: Washington and Oregon on the west coast; Maine, New Hampshire, New Jersey, Delaware, Maryland, Virginia, North and South Carolina, and Georgia, on the east coast; and, finally, Hawaii, with its unique geography. The prospect is overwhelming -- unless the Court takes firm action.

Which leads me to a very rash prediction.

RASH PREDICTION: A HAPPY ENDING

It is dangerous to be too sure about the justice of one's cause and even more dangerous to be confident that the tribunal

deciding the controversy will have the wisdom to see truth and the courage to follow it. Nevertheless, in the present context, I am rash -- or brash -- enough to indulge the expectation that the pending cases will end favorably after argument in the Court. But, more than that, I predict the decisions will be so written as finally to dampen the litigious spirit of the coastal states involved and discourage those now waiting in the wings from entering the fray.

The most difficult aspect of these cases is to engage the Court's interest sufficiently. A decade ago, there was a tendency to abdicate responsibility to a Special Master, whose recommendations were almost automatically endorsed. That would be disastrous this year, for, as we have noted, in both the two cases immediately before the Court for final decision -- those involving Mississippi and Alabama, on the one hand, and Rhode Island and New York, on the other -- the Special Masters have gone very far astray. Although the lands at stake are of no real significance, the precedents would be harmful elsewhere. But, most damaging would be the incentive created for other states to propose novel doctrines in the hope that a Master will be tempted and the expectation that the Court will not interfere.

Fortunately, the Court seems to have become more inclined to exercise independent judgment in the last few terms, often rejecting the Report filed by its Special Master. E.g., Idaho ex rel. Evans v. Oregon, 444 U.S. 380 (1980); United States v. Louisiana, 446 U.S. 253 (1980); [Arizona v. California, No. 8, Orig. (Mar. 30, 1983); Texas v. New Mexico, No. 65, Orig. (June 17, 1983); Colorado v. New Mexico, No. 80, Orig. (June 4, 1984). What is more, in the special case of the offshore submerged land disputes, the Court must be sensitive to the need to curb the undisciplined extravagance of the litigation, all too commonly indulged by Special Masters. And, given the large number of potential future controversies, the Court presumably will deem it wise to intervene without delay.

Assuming the Court gives the pending cases a hard look, we have no doubt as to the outcome. But disapproving the Masters' Reports is not enough if further wasteful litigation is to be discouraged. The Court must make at least the following propositions unequivocally clear: (a) that, so long as the United States does not draw them, no state claim based on a straight baseline system can be entertained; (b) that, given the consistent disclaimer by the United States over several decades that any historic inland waters (other than Long Island Sound) exist off our coasts, it would take the most extraordinary evidence today to establish a historic title that, if ever ripened, had not effectively been abandoned; (c) that treating islands as part of the mainland is reserved for truly extreme situations and is least of all justified in order to create a bay that substantially distorts the coastline. There is reason to hope such rulings will come from a Court strongly provoked by the excessive character of the state claims, accepted by much too hospitable Special Masters, and apprehensive that insidious

false doctrines, if not unambiguously repudiated, will survive in one disguise or another to plague the original docket for many more years.

Of course, lest it be supposed that the Court's impatience is merely temporary, like treatment must be given to the Massachusetts and Alaska boundary cases when their turn comes. Above all, the Court must candidly disabuse Special Masters of the notion that their task is akin to that of an arbitrator charged with finding some middle ground between the parties. The truth must be spoken out loud: currently, at least, the United States, informed only by the light of reason, is always right, the state is always wrong, invariably guilty of outrageously overreaching in the hope of persuading the Court that it should receive some portion of its claim. Perhaps the Court cannot be expected to put the matter quite so bluntly. But I anticipate more polite language conveying a comparable message. If only the states believed my prediction; they would surrender now and the accuracy of my preview need never be tested.

This, then, is the wholly objective federal perspective. Do not follow the bad example of some of our Special Masters and permit yourselves to be swayed by the advocate for the state's position. By all means, enjoy Mr. Briscoe -- as I always do -- but don't take him seriously. His submission, I assure you, is all froth, like whipped syllabub, attractive to the palate, but entirely without sustenance. Stick with the simple but hardy federal diet and all will be well.

NOTES

1. The views expressed here are my own and do not necessarily reflect the official position of the United States or of its Department of Justice. This is not to suggest that the government would have any cause to disagree with the very loyal and presumably correct statements made in this paper.
2. In its zeal in favor of the state, the Court went overboard, holding, for instance, that the United States could not acquire land by eminent domain within a state (44 U.S. (3 How.) at 223), and that, even before statehood, the United States could never alienate title to water bottoms (Id. at 229). Both propositions were soon abandoned. See Kohl v. United States, 91 U.S. (1 Otto) 367 (1875); Shively v. Bowlby, 152 U.S. 1, 48 (1894). But, alas, the basic doctrine has survived.
3. Pollard's Lessee v. Hagan, 44 U.S. (3 How.) 212 (1845); Goodtitle v. Kibbe, 50 U.S. (9 How.) 471 (1850); Den v. Jersey Company, 56 U.S. (15 How.) 426 (1853); Barney v. Keokuk, 94 U.S. 324 (1876); McCready v. Virginia, 94 U.S. 391 (1876); Shively v. Bowlby, 152 U.S. 1 (1894); Mobile Transportation Co. v. Mobile, 187 U.S. 479 (1903).

4. Illinois Central Railroad v. Illinois, 146 U.S. 387 (1892); McGilvra v. Ross, 215 U.S. 70 (1909); United States v. Holt Bank, 270 U.S. 49 (1926); Massachusetts v. New York, 271 U.S. 65 (1926).
5. Weber v. Harbor Commissioners, 85 U.S. (18 Wall.) 57 (1873); Port of Seattle v. Oregon & W.R.R., 255 U.S. 56 (1921); Borax, Ltd. v. Los Angeles, 296 U.S. 101 (1935).
6. Martin v. Waddell, 41 U.S. (16 Pet.) 367 (1842); Smith v. Maryland, 59 U.S. (18 How.) 71 (1855); Mumford v. Wardwell, 73 U.S. (6 Wall.) 423 (1867); Mann v. Tacoma Land Company, 153 U.S. 273 (1894); United States v. Mission Rock Co., 189 U.S. 391 (1903).
7. Despite the most explicit disclaimers by federal government lawyers that lands covered and uncovered by the tide, even those fronting the open sea, were not at issue (see p. 362 and n.11, Infra), the erroneous "tidelands" label persisted. One suspects that mistake was encouraged -- if not suggested -- by state representatives anxious to portray "the government in Washington" as greedily attempting to upset settled doctrine. Cf. p. 363, Infra.
8. One senses that the government lawyers preferred to rest their case on the traditional concept of national sovereignty over a three-mile territorial sea belt, asserted by the United States since 1793, rather than invoke the then almost unique continental shelf declaration. See, e.g., 1 Shalowitz, Shore and Sea Boundaries 186-189 (1962). At all events, the Executive Order accompanying the Proclamation expressly disclaimed any intent to affect the federal-state dispute over rights in the shelf. Exec. Order 9633, 10 Fed. Reg. 12305, reproduced in pertinent part in United States v. Louisiana, 363 U.S. 1, 6 n.3 (1960).
9. Indeed, California claimed only a belt three statute or English miles wide, whereas we defined the width of the federal zone in nautical or geographical miles, each of which measures 1.15 statute miles. See 332 U.S. at 23 n.1.
10. See Brief for the United States in Support of Motion for Judgment, in No. 12, Orig., O.T. 1946 (filed Jan. 1947), in which we stated (at 72) that the rule applying the equal footing doctrine to support state ownership of tidelands and lands underlying navigable inland waters "is believed to be erroneous, but the Government does not ask that it be overruled," suggesting "merely that the unsound rule be not extended to the marginal sea." We went on to argue the point at some length, still insisting, however, that the Court ought not to overrule the erroneous decisions. Id. at 143-153. The Court noticed our point, but left it alone. See 332 U.S. cf. 30-31.
11. Our brief duly noted that no previous case had "involved tidelands along the open sea" (Brief etc. at 70 n.6), but, nevertheless, conceded state title to such tidelands (Id. at 1, 2, 19).
12. In Section 5 of the Act (43 U.S.C. 1313), the United States

withheld from the grant lands previously expressly reserved or acquired. It may be questioned whether this provision was faithfully applied by the Court when it later ruled in favor of California, denying a federal claim of title to submerged lands surrounding the Santa Barbara Channel Islands, part of a National Monument. United States v. California, 436 U.S. 32 (1978).

13. It is strange that the challenge was mounted by coastal states, at least to some degree beneficiaries of the new law, rather than interior states. To be sure, Rhode Island could (and did) argue that it was debarred from proving a nine-mile belt, and Alabama, although not prevented by the Act, also claimed to be unable to establish such a historic boundary. But see p. 365, infra. Both states also complained that, unlike California, Texas, and Louisiana, they had small prospects of deriving substantial revenues from their share of the seabed.

14. As Justice Douglas emphasized, it is not easy to sustain the Submerged Lands Act without overruling the first California and Texas cases, or at least the latter. As he said, the whole point of the earlier cases was that rights in the marginal sea were indivisible, as a matter of constitutional law, so that Texas, for instance, could not retain the subsoil property rights she previously enjoyed and concede only paramount rights of sovereignty to the government of the Union she was joining. See 347 U.S. at 281-283. The Court had not determined that Congress, in admitting Texas, has required a cession of those seabed rights: on the contrary, the new state retained all its public lands and, as was later held (363 U.S. 1, 36-65 (1960)), Congress approved and continued in effect the Texas boundary nine miles into the Gulf. It was the Constitution itself that deprived Texas of title to the offshore oil. How then could Congress, in 1953, do what the Congress of 1845 was powerless to do?

One might suppose that the problem would become academic after the 1954 decision sustaining the Submerged Lands Act in Alabama v. Texas. Not so. The validity of the limitations on the grants -- both the three and nine-mile maximums and the reservation of federal enclaves in Section 5 -- and the validity of the Outer Continental Shelf Lands Act depend upon the premise that the whole of the seabed appertained to the United States until a portion was ceded to the States for the first time in 1953. Accordingly, the Court has pointedly reaffirmed the first cases. See United States v. Louisiana, 361 U.S. at 7, 83 n.140; United States v. Maine, 420 U.S. at 522-524, 528. See, also, United States v. Louisiana, 446 U.S. at 256, 268; California ex rel. State Lands Commission v. United States, 457 U.S. 273, 285 & n.13 (1982). Indeed, in the Maine case, the Court has even purported to deal with the contradiction which had been forcefully argued. See 420 U.S. at 524-526. If the Supreme Court were not final, one might question whether the answer given is satisfactory.

15. After the entry of the injunction, the United States and the state entered into a so-called "interim agreement," permitting operations to continue, subject to later accounting, pending final resolution of the dispute. As it happens, that took twenty years. Thereafter, Louisiana contended it need not pay over revenues it had derived from lands it was permitted to administer which were ultimately adjudicated to the United States. And the state claimed interest from the United States on the sums held in the federal Treasury derived from what turned out to be state water bottoms. Both arguments were rejected by the Court. United States v. Louisiana, 446 U.S. 253 (1980). Still later, Louisiana sought to derive revenues from natural gas produced from federal submerged lands beyond state boundaries by imposing a so-called First Use Tax on the gas during its passage through the state on its way to customers in the Northeast. Again, the Supreme Court rebuffed Louisiana's claim. Maryland v. Louisiana, 451 U.S. 725 (1981).

16. Indeed, the Court somewhat petulantly ordered "stricken" stipulations between the parties that at least narrowed the area of disagreement. 332 U.S. at 804, 805.

17. So far as is known, the Supreme Court only began appointing Special Masters in original cases to make findings of fact and propose conclusions of law for the Court's review in the mid-1920s. E.g., New Mexico v. Texas, 266 U.S. 586 (1924); Wisconsin v. Illinois, 271 U.S. 650 (1926). The earlier precedents involved "commissioners" appointed merely to record evidence or conduct surveys on the ground. E.g., United States v. Shipp, 214 U.S. 471 (1907) (Order appointing commissioner to take testimony and report to the Court "without findings of fact or conclusions of law"); Oklahoma v. Texas, 256 U.S. 602, 605-607, 608-609 (1921) (Orders appointing commissioner to take evidence and report "but without findings or conclusions"); id. 261 U.S. 340, 343 (1922) (Order appointing commissioners to "run, locate and mark upon the ground" portions of a boundary). See, also, Oklahoma v. Texas, 252 U.S. 372 (1920) (Order appointing a "receiver" to manage disputed lands). Even in the 1930s and 1940s, appointment of a Master to report recommendations on ultimate questions of fact and law was not the almost automatic practice it has become today. Indeed, the basic California decision itself had been entered without any reference to a Master, as would be the first, second, and third Louisiana and Texas decisions. See 339 U.S. 699; 339 U.S. 707; 363 U.S. 1; 389 U.S. 155; 394 U.S. 1; 394 U.S. 11. Accordingly, it is not wholly surprising that the Court initially entrusted its Special Master here with only procedural duties, inching its way to the point of asking him to make ultimate recommendations. Indeed, the Master himself had originally urged the Court to spare him such a responsibility, but to assign it, if need be, to "a special court of federal judges." See

Report of the Special Master of May 31, 1949, in No. 12, Orig., O.T. 1948, 6.

18. See State of California's Opposition to United States Motion for Leave to File Supplemental Complaint or Original Complaint and Motion of the State of California to Dismiss United States v. California, No. 5, Original, in No. 5, Orig., O.T. 1962, 4, 25-27 (filed July 1963); Memorandum for the United States (1) in Reply to Opposition to Motion for Leave to File Supplemental Complaint or Original Complaint, and (2) in Opposition to Motion to Dismiss, No. 5, Orig., O.T. 1962, 1-2, 18-20 (filed Sept. 1963); Joint Statement of the Parties Regarding Their Correspondence and Discussions between 1954 and 1963, in No. 5, Orig., O.T. 1963, 1-4 (filed Nov. 1963).

19. This was one of the propositions urged by the United States in the proceedings leading to the Court's 1947 decision. See Brief for the United States in Support of Motion for Judgment, in No. 12, Orig., O.T. 1946, 72-142 (filed Jan. 1947).

20. See, e.g., U.S. Memorandum in Regard to the Report of the Special Master; Motion for Hearing; and Brief in Support of Motion, in No. 6, Orig., O.T. 1951, 2-3, 24-25 (filed Aug. 1951).

21. See Amended Exceptions of the United States to the Report of the Special Master Filed November 10, 1952, and Brief in Support of Exceptions, in No. 5, Orig., O.T. 1963, 3 n.2, 22-26 (filed Apr. 1964); Brief for the United States in Answer to California's Exceptions to the Report of the Special Master, in No. 5, Orig., O.T. 1963, 32-36 (filed June 1964); Brief for the United States in Answer to the Brief of Amicus Curiae State of Alaska, in No. 5, Orig., O.T. 1964, 14-19 (filed Nov. 1964).

22. See Amended Exceptions, etc., supra, at 3 n.2; Exceptions of the United States to the Report of the Special Master filed November 10, 1952, in No. 6, Orig., O.T. 1952, 2-3 (filed Jan. 1953).

23. The Texas and Florida problem aside, the Court was on weak ground in suggesting that its adoption of the International Convention rules would produce a single territorial sea line, effective in both our foreign and domestic relations. See 381 U.S. at 165. Indeed, as the opinion itself immediately recognized, a change in the provisions of the Convention or in the position of the United States under it -- such as adopting a twelve-mile territorial sea -- would not alter the Submerged Lands Act grant. 381 U.S. at 166-167. So, also, the Court has endorsed boundary lines conceded by the United States as effective for Submerged Lands Act purposes which do not conform to the Convention and are not internationally correct. The clearest example is Chandelour Sound in Louisiana, which contains pockets of high seas, but which, on our concession, the Court has treated, for domestic purposes, as Louisiana internal waters. See 394 U.S. at 66-67 n.87; Stipulation of Jan.

21, 1971, appended to Report of the Special Master of July 31, 1974, in No. 9, Orig., O.T. 1974, 63-66. See, also, the Decrees incorporating that line. 422 U.S. 13 (1975); 452 U.S. 726 (1981). And, finally, at least for accounting purposes, a Submerged Lands Act boundary may be frozen for a period of years, notwithstanding the ambulating international territorial sea line. See 452 U.S. at 727.

24. One other ruling deserves notice, albeit it applies only to the situation of twice-daily tides on the Pacific coast. Following the Convention rule that the line marked on official large-scale charts should govern (Art. 3), the Court adopted the mean lower low water line as the baseline for measuring the three-mile grant, rejecting our plea for an average of all low waters. 381 U.S. at 175-176.

25. The Government's other alternative argument -- never mentioned by the Court, but probably sounder -- was that the Texas admission boundary, although ambulatory, must be measured from the natural "shore" or "land," excluding man-made jetties that would not have been deemed part of the baseline in 1845 even if they had then existed. See Brief for the United States in Support of Motion for Injunctive Relief and Supplemental Decree as to the State of Texas, in No. 9, Orig., O.T. 1967, 16-21, 22 (filed July 1967).

26. Still later, Louisiana claimed the Coast Guard line as a "straight baseline" system, officially maintained by the United States for many years and now beyond disavowal. See Report of the Special Master of July 31, 1974, in No. 9, Orig., O.T. 1974, 7-9. The Master rejected the argument (Ibid.), as did the Court. 420 U.S. 529 (1975).

27. Under Article 11 of the Convention on the Territorial Sea, a low-tide elevation forms part of the coastline only if it is within three miles (in our case) "from the mainland or an island." Perhaps overgenerously, the Court has held that low-tide elevations within three miles of inland waters also qualify. Louisiana Boundary Case, 394 U.S. at 40-47.

28. Article 13 of the Convention so provides. Application of this provision has so far provoked no dispute, except only the rejection of Louisiana's preposterous claim that the "mouth" of the Mississippi River encompassed all the indentations -- such as East Bay -- between the discrete, land-banked channels or "passes" of the Delta. See Louisiana Boundary Case, 394 U.S. at 74 n.99.

29. California has also sought to claim -- as against the United States as littoral owner -- title to artificially caused accretion along the coast, while at the same time (correctly) accepting the benefit of a more seaward submerged land boundary resulting from measuring the belt from the new low water line. This, too, rightly failed. California ex rel. State Lands Commission v. United States. 457 U.S. 273 (1982).

FEDERAL-STATE OFFSHORE BOUNDARY DISPUTES: THE STATE PERSPECTIVE

John Briscoe
Washburn and Kemp
San Francisco, California

Mr. Claiborne's remarks are most welcome in this forum. For he is, in the estimation of all who know, the supreme appellate advocate in the United States today. And, quite obviously, that is a position he does not readily abdicate. "Objective," indeed.

Less obvious is the endorsement Mr. Claiborne has given to the remarks I intend to make on this subject: "Whip-syllabub, frothy and full of wind, formed only to please the palate...." This metaphor was first publicly employed by Congressman Aedanus Burke of South Carolina in 1789. Burke employed it in his denouncement of James Madison's perspective that, in order to curtail excessive federal authority, our Constitution ought to accommodate a bill of rights [1]. It is comfortable, on this occasion, to be in such company.

Offshore boundary disputes between the federal and state governments have historically arisen almost exclusively in the context of title to offshore submerged lands. With some exceptions, it had long been settled that the states acquired title to the submerged lands of all inland waters within their territories upon admission to the Union. Pollard's Lessee v. Hagen, 44 U.S. (3 How.) 212, 228, 229 (1845) [2]. The maritime-boundary disputes which we are addressing first arose in 1945. The question in that first case, brought by the federal government against California, was whether the states owned any submerged lands off their coasts seaward of the ordinary low watermark, for that line was the seawardmost limit of state ownership then admitted by the federal government. That, of course, was the same year as President's Truman's Proclamation on the Continental Shelf [3]. The United States Supreme Court swiftly decided that the federal government, and not California, enjoyed "paramount rights" -- something apparently not the equivalent of title -- to the submerged lands seaward of the coastline of California. United States v. California, 332 U.S. 19, 39 (1947). In short order this principle was applied to the states of Louisiana and Texas. United States v. Louisiana, 339 U.S. 699, 704-705 (1950); United States v. Texas, 339 U.S. 707, 718-720 (1950).

Following the decisions in the California, Texas and Louisiana cases, the federal-state dispute focused on the location of the boundary between the state-owned beds of inland waters, and the federally-owned offshore submerged lands. In the California case, for example, a Special Master was appointed to locate the legal coastline of California and, in the process, determine the status, as inland waters or not, of several water bodies such as Monterey Bay and the Santa Barbara Channel. Extensive hearings were conducted in 1952 before the Special Master on these questions [4].

In 1953, however, by act of Congress, the lands which the Supreme Court had decreed subject to federal paramount rights were relinquished to the coastal states. This grant or quitclaim extended to distances of three or nine nautical miles from the "coastline." Since that time, marine-boundary disputes between the federal and state governments have concerned the boundary between the state-owned submerged lands and the federally-owned "outer continental shelf."

In a respect, the assignment for this paper resembles a request that a scientist describe the mechanics of ether. There is no one "state perspective." Until 1975, for example, the states of the eastern seaboard felt their colonial charters made them far less vulnerable to federal offshore claims than, say, California, the original state litigant. Texas, for its part, felt secure that its prior status as a sovereign nation made its title to the submerged lands of its marginal sea inviolate. Notwithstanding these divergences, several elements of a common state perspective on these boundary disputes are probably correct to posit:

(a) The whole matter of the ownership of offshore submerged lands, and hence of boundaries separating federal and state submerged lands, arose at the least propitious time in American history.

(b) From the outset, these disputes have been perceived by the Supreme Court as ineluctably entailing our foreign relations; from this perception an undue, indeed inordinate deference has, in this litigation, been accorded the views of the federal government, the custodian of our foreign relations.

(c) This deference has induced the United States to take absurdly conservative positions in territorial sea delimitation matters -- nominally in the name of foreign relations, but in truth for the purposes of enlarging the government's outer continental shelf holdings. Its refusal to employ straight baselines where the geography begs for them is one such example.

(d) As it niggardly delimits its territorial sea, the United States concurrently launches a new flotilla of expansionist claims to ocean resources, redolent of the Truman Proclamation in 1945. In 1976, the United States unilaterally claimed a 200-mile fishery zone; last year President Reagan declared a 200-mile exclusive economic zone, enlarging by a factor of four the submarine areas claimed as sovereign U.S. property. These expansionist claims may well culminate in a declaration of a 12-mile United States territorial sea and yet, by virtue of language in prior Supreme Court opinions, the states may not receive the benefits of this truer reflection of American foreign policy in the law of the sea.

(e) The Department of the Interior has been the <u>bete noire</u> of this episode. As one articulate writer has commented -- from the federal perspective:

> [T]he principal engine for expansion of United States government continental shelf claims during the 1930s and early 1940s was the Interior Department, and in particular its secretary, Harold Ickes. Secretary Ickes worked persistently to gain control of offshore lands for the federal government and to extend the boundary of the continental shelf for the nation. He was willing to pursue any available means including legislation, litigation, and executive proclamation [5].

More recently, when the Court had sent its clearest signal that it would maintain its obeisance to the positions of the government in these cases, the government formed in 1970 an inter-agency committee, commonly called the "Baselines Committee." The function of this committee is to determine the United States' baseline and delimit the outer boundaries of the territorial sea, contiguous zone, and now, the exclusive economic zone. Most of the committee's membership -- representatives of the Departments of State, Defense and Commerce, for example -- is unobjectionable enough. But the participation of the Department of the Interior on the committee has long chafed the states. Interior would seem to have no cause to enter the business of formulating foreign policy, save as that policy serves an ulterior purpose -- determining the boundary between state submerged lands and the outer continental shelf, which the Department manages.

A factual basis for this perception of the state perspective on these maritime-boundary disputes lies hopefully within the following abbreviated history of these disputes. But whether or not I have accurately stated the states' perspective, having represented two states in these cases I am confident that from the following remarks will emerge some state point of view.

I.

The formal commencement of the submerged lands litigation occurred 19 October 1945, when the federal government filed suit against California in the Supreme Court's original jurisdiction, seeking a determination of the title to the submerged lands lying off California's coast. In the view of the states, especially the first defendant, California, the time of the filing of the complaint in United States v. California was an inauspicious one. It was certainly so in hindsight.

The record of the events leading to the filing of United States v. California has been amply made elsewhere [6], but a selection of events, especially some which have not commonly been associated with this litigation, may convey the state perspective of the day, a perspective which in large measure persists today. A brief chronology may introduce the sense of that perspective:

- 18 December 1944. The United States Supreme Court decides Korematsu v. United States, 323 U.S. 215, upholding, for all intents and purposes, the establishment of detention centers for American citizens of Japanese ancestry. Id. at 222.

> Korematsu v. U.S. ... represents the nefarious impact that war ... can have on institutional integrity and health.

(Lawrence Tribe, American Constitutional Law New York: Minneola Press, 1978. See also The Japanese-American Cases - A Disaster, 54 Yale L. Journal 489, 1945.)

- 14 August 1945. The Allies are victorious over Japan. The formal surrender takes place aboard the U.S.S. Missouri on 2 September 1945.
- 28 September 1945. President Truman signs Executive Proclamation 2667, declaring to the world that "the government of the United States regards the natural resources of the subsoil and seabed of the continental shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States, subject to its jurisdiction and control." 59 Stat. 884. Soon afterwards, in an effusion of jingoistic hyperbole, Professors Clark and Renner of Columbia University write that the proclamation constitutes "one of the decisive acts in history, ranking with the discoveries of Columbus as a turning point in human destiny." (Clark and Renner, "We Should Annex 50,000,000 Square Miles of Ocean," Saturday Evening Post 16, (4 May 1946).)
- 19 October 1945. The federal government files suit against California to establish its title to the submerged lands. Paragraph 2 of the complaint against California alleges:

> At all times herein mentioned, plaintiff was and now is the owner in fee simple of, or possessed of paramount rights in and powers over, the lands, minerals and other things of value underlying the Pacific Ocean, lying seaward of the ordinary low watermark on the coast of California and outside of the inland waters of the state, extending seaward three nautical miles and bounded on the north and south, respectively, by the northern and southern boundaries of the state of California [7].

With these events as prologue, it should have come as no surprise that the Supreme Court in 1947 embraced the alternative submission of the United States, and held that it and not California was possessed of paramount rights in the submerged lands within the three-mile belt. The Court's rationale discloses the profound influence of those events:

> The ocean, even its three-mile belt, is thus of vital consequence to the nation in its desire to engage in commerce and to live in peace with the world; it also becomes of crucial importance should it ever again become impossible to preserve that peace. And as peace and world commerce are the paramount responsibilities of the nation, rather than an individual state, so, if wars come, they must be fought by the nation.

332 U.S. 19, 35.

At most other times in American history, the title of the states to the offshore submerged lands would have been thought secure. Even the Supreme Court conceded, in its 1947 decision in the California case, that prior to the dispute it had generally been understood that the states owned the natural resources of the submerged lands within the three-mile belt. The Court itself cited for this understanding Manchester v. Massachusetts, 139 U.S. 240; Louisiana v. Mississippi, 202 U.S. 1, 52; and The Abby Dodge, 223 U.S. 166. 332 U.S. at 36-37.

Too, the recognition of the states' title in administrative actions of the federal government had been as nearly consistent as California could have hoped. F.W. Clements, for 35 years a law officer in the Department of the Interior, testified before Congress in 1939 that all requests for entry or claim in the submerged lands during his experience in the department "were uniformly turned down, since they were deemed the property of the states" [8]. Indeed, even the acquisitive Secretary Ickes denied an application for a federal mineral prospecting permit in the submerged lands off the coast of California in 1933 with the following words:

> [N]o rights can be granted to you either under the Leasing Act of February 25, 1920 (41 Stat. 437), or under any other public-land law to the bed of the Pacific Ocean either within or without the three-mile limit. Title to the soil under the ocean within the three-mile limit is in the state of California, and the land may not be appropriated except by authority of the State. A permit would be necessary to be obtained from the War Department as a prerequisite to the maintenance of structures in the navigable waters of the United States, but such a permit would not confer any rights in the ocean bed [9].

As one observer has written, "What clearer declaration of policy could be made by one in high authority, especially one charged with administration of the public lands of the United States and presumably knowing the law and settled policies in regard to what were, and what were not, considered lands of the United States?" [10]

Another representative decision of the Interior Department was made in 1934 concerning the application of Joseph Cunningham

for a prospecting permit to cover 1,600 acres lying seaward of Huntington Beach, California. The commissioner of the General Land Office rejected the application, writing that if the area was below the line of ordinary high tide, jurisdiction was in the state of California, since it became the "owner" of all lands "extending" seaward so far as its municipal domain extends." Cunningham's appeal from the decision was dismissed by Secretary Ickes with these words:

> It is clear that this department has no jurisdiction. The state of California asserts title to tide and submerged lands under the common law as it has repeatedly been laid down by the Supreme Court of the United States [11].

Notwithstanding these unequivocal recognitions of the states' title by the Supreme Court and by the Department of the Interior, the events of the decade or so preceding the filing of the complaint against California should have borne ominous signs. The states could not have known, of course, that one of their most eloquent advocates of the 1930s would later preside over the Supreme Court when it decided what is, modernly, the most vexatious decision in the history of this litigation [12]. But in the decade preceding the filing of United States v. California, a number of events had occurred which, when considered together with the war effort and victory which just preceded the filing of the complaint, should have warned of the inauspicious time of the commencement of the litigation.

The leading players in these events were, again, Harold Ickes, and as well President Roosevelt himself. One writer has observed:

> President Franklin D. Roosevelt's willingness to extend coastal jurisdiction for a variety of purposes was particularly striking. In the decade prior to the Truman proclamations, his proclivities resulted in a number of claims characteristic of a regional or middle power strong enough to defy the prevailing legal system, yet too weak to impose a new legal regime [13].

As examples, the United States enacted anti-smuggling legislation in 1935 which permitted the President to declare a customs-control area extending 100 miles north and south from where a suspected ship was hoving, and creating an additional band of 50 miles' width seaward of the 12-mile customs zone [14]. In 1939, the United States successfully proposed to an Inter-American meeting of ministers of foreign affairs that neutrality zones be created around the hemisphere to be patrolled individually or collectively by the American republics. The resulting Declaration of Panama adopted the U.S. proposal for a defense zone which extended 300 miles and more from shore. President Roosevelt personally drew the connecting

straight lines of the zone, which in some areas extended the defense area considerably beyond 300 miles [15].

On 1 July 1939, Roosevelt wrote the Attorney General and the Secretaries of State, Navy and Interior:

> I am still convinced that: (a) federal as opposed to state jurisdiction exists below low-watermark ... and that (b) federal jurisdiction can well be exercised as far out into the ocean as it is mechanically possible to drill wells.
>
> I recognize that new principles of international law might have to be asserted but such principles would not in effect be wholly new, because they would be based on the consideration that inventive genius has moved jurisdiction out to sea to the limit of inventive genius [16].

Meanwhile, Secretary Ickes was, perhaps not inexplicably, coming around to his President's point of view. Precisely why is unclear; one knowledgeable writer conjectured that Icke's friendship with a spurned applicant for a federal permit for submerged lands, who visited Ickes upon his rejection, may have given the Secretary pause to rethink [17]. Perhaps Ickes' boss exerted some mild influence. Whatever the cause, the chronicler of the "tidelands oil controversy" wrote in 1953:

> There is no doubt in the writer's mind that Ickes was altruistically interested in one thing: the conservation of oil. He sincerely believed that conservation could best be accomplished under national administration. To the time he resigned his post as Secretary of the Interior, he viewed the contest as one solely involving oil, and he continued to hold that view as a private citizen. His every letter, newspaper and magazine article, and piece of testimony from 1938 to the day of his death breathes this spirit [18].

Whatever Ickes' motives, by 1943 the forces that would lead two years later to both the Continental Shelf Proclamation and the filing of the California case were in one motion. In that year General Land Office officials wrote Ickes that the wartime situation offered an ideal opportunity to strike "from our own thinking and international law the shackles of the three-mile limit for territorial waters .... In the interest of national and domestic security" the United States should adopt a "line of 100 or 150 miles from our shores" thereby taking the United States "beyond the continental shelf and reserving this valuable asset for the United States ...."[19]. Secretary Ickes took these notions to the President, who immediately embraced them. On June 9 Roosevelt wrote Secretary of State Cordell Hull:

> I think Harold Ickes has the right slant on this. For many years, I have felt that the old three-mile limit or a 20-mile limit should be superseded by a rule of common sense. For instance, the Gulf of Mexico is bounded on the south by Mexico and on the north by the United States. In parts of the gulf, shallow water extends very many miles off shore. It seems to me that the Mexican government should be entitled to drill for oil in the southern half of the gulf and we in the northern half of the gulf. That would be far more sensible than allowing some European nations, for example, to come in there and drill [20].

The Truman proclamations were issued on 28 September 1945. Precisely three weeks later, California was sued in the Supreme Court's original jurisdiction.

California chose, in pleading to the government's complaint, to avoid the pitfalls of omission. Its answer was in three volumes of 822 printed pages, and weighed 3 pounds, 9 ounces [21]. The answer must have adduced every known incident that could, with any rationality, be construed as an acknowledgment of the state's title to the submerged lands. The United States promptly moved the Court for an order striking the answer on the ground of "excessive prolixity." Following negotiations, California filed a more succinct answer on 21 May 1946 [22], and the case was argued on 13 and 14 March 1947.

Before the case was decided, Congress enacted the first of three bills that would have quitclaimed any federal interest in the submerged lands to the state [23]. It was promptly vetoed by President Truman [24].

The decision, about which no one should have been surprised, was handed down 23 June 1947. In it, as mentioned before, the Supreme Court declined to embrace the government's primary submission that it owned the submerged lands in issue, and chose instead to achieve the same result -- insofar as proprietary rights in the oil were concerned -- by adopting the paramount rights argument. An incident of these "paramount rights," wrote Justice Black for the majority, is "full dominion over the resources of the soil under that water area, including oil." The most perspicacious analysis of the Court's decision is found in the dissenting opinion of Mr. Justice Frankfurter, who wrote:

> [The court does not find] that the United States has proprietary interests in the area. To be sure, it denies such proprietary rights in California. But even if we assume an absence of ownership or possessory interest on the part of California, that does not establish a proprietary interest in the United States.
>
> * * * Of course the United States has "paramount rights" in the sea belt of California -- the rights that are implied by the power to regulate interstate

and foreign commerce, the power of condemnation, the treaty-making power, the war power. We have not now before us the validity of the exercise of any of these paramount rights. Rights of ownership are here asserted -- and rights of ownership are something else. Ownership implies acquisition in the various ways in which land is acquired -- by conquest, by discovery and claim, by cession, by prescription, by purchase, by condemnation. When and how did the United States acquire this land?

* * * To declare that the Government has "national dominion" is merely a way of saying that vis a vis all other nations the Government is the sovereign. If that is what the court's decree means, it needs no pronouncement by this court to confer or declare such sovereignty. If it means more than that, it implies that the Government has some proprietary interest. That has not been remotely established except by sliding from absence of ownership by California to ownership by the United States.

* * * On a fair analysis of all the evidence bearing on ownership, then, this area is, I believe, to be deemed unclaimed land .... It is noteworthy that the court does not treat the president's proclamation in regard to the disputed area as an assertion of ownership. See Exec. Proc. 2667 (28 September 1945) 10 F.R. 12303. If California is found to have no title, and this area is regarded as unclaimed land, I have no doubt that the president and the Congress between them could make it part of the national domain ... [25].

Significantly, the Court in its 1947 California opinion foreshadowed the decision it would make nearly 30 years later in United States v. Maine [26] by finding that there was sparse historical support for the proposition that the 13 original colonies acquired separate ownership of the three-mile belt or the soil under it. That was so, wrote the Court, notwithstanding that the colonies' revolution gave them elements of the sovereignty of the English crown [27].

The marauding federal government assailed two Gulf coast states in short order and succeeded against each in 1950. The Court found that Louisiana's claim to the lands underlying the marginal sea and beyond were no more compelling than California's claims [28]. The Court also rejected Texas' claim, notwithstanding Texas' existence as an independent republic prior to admission to statehood [29]. Ironically, the same principle upon which California and Louisiana had grounded their arguments, the equal-footing doctrine [30], defeated Texas' argument. Texas argued that, as a republic, it possessed full sovereignty over the territorial sea as well as ownership of it. The Court held, however, that Texas had relinquished sovereignty and ownership to the national government upon admission to the

Union. That then placed Texas on an equal footing with the other states [31].

Upon deciding the 1947 California case, the Court had appointed William H. Davis of New York as Special Master to delineate the "ordinary low water mark" along certain disputed segments of the California coast. The Special Master's report was filed with the Court in 1952 [32], but before the Court took it up, Congress passed the Submerged Lands Act [33], which "restored" to the seaboard states the rights to their offshore submerged lands, rights Congress evidently thought the California decision of 1947 had divested [34]. The Act quitclaimed California and the other coastal states whatever interest the federal government may have had in the lands and natural resources therein lying within three geographic miles seaward of the "coast line" [35]; in the instances of Texas and of Florida, on her Gulf coast, the grant of the Act, as decided in later cases, operates to nine geographic miles.

The Submerged Lands Act defined "coast line" as "the line of ordinary low-water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters" [36]. That term has been the principal point of contention in the thirty years of litigation, virtually all of which has occurred in the Supreme Court's original jurisdiction [37], following passage of the Act.

Virtually at the same time, Congress enacted the Outer Continental Shelf Lands Act, which declared that the subsoil and seabed of the outer continental shelf appertain to the United States and are subject to its jurisdiction, control, and power of disposition [38].

In subsequent years, the boundary scheme developed in the Submerged Lands Act and the Outer Continental Shelf Lands Act has been employed, in forms identical or nearly so, in a host of Congressional legislation providing for the regulation of ocean resources. Summaries of these laws are given in Appendix A. Still, the allure of petroleum has seen to it that the boundary litigation continues to arise under the Submerged Lands Act, and not another of these statutes.

The first decision following the Submerged Lands Act came promptly. In Alabama v. Texas [39] the Court upheld the Act as a valid exercise of Congress' power under the property clause of the Constitution [40]. The power of Congress to dispose of federal property, the Court held, has no limitation [41].

Undaunted by Alabama v. Texas, the government resumed the litigation in 1960, selecting again the Gulf of Mexico as its theater of operation. In the Submerged Lands Act, Congress had relinquished to the coastal states the United States' interest in all lands beneath navigable waters within the boundaries of the states [42]. The "boundaries" of the states were defined as they existed at the time a state became a member of the Union, or thereafter approved by the Congress, not extending seaward from the coast of any state, however, more than three marine leagues (nine nautical miles) in the Gulf of Mexico, or more than three nautical miles in the Atlantic and Pacific Oceans

[43]. Thus, the Gulf coast states had the opportunity to prove that their boundaries extended seaward of three nautical or geographic miles. In United States v. Louisiana [44], the Court held that the Submerged Lands Act gave Texas a belt of three marine leagues' width, but Louisiana, Mississippi, and Alabama had not proven their cases, and therefore received only the lands within three nautical miles from their coasts. In United States v. Florida [45], the Court held that the Submerged Lands Act granted to Florida, on its Gulf coast, a three-marine-league belt of land. The Constitution of Florida that Congress approved when it readmitted Florida to representation in Congress following the Civil War plainly describes this three-league boundary [46].

The most significant, and insidious, decision in the submerged lands cases, following passage of the Act, was the 1965 United States v. California decision [47]. After its 1947 decision and its receipt in 1952 of the Special Master's report, the Court retained jurisdiction to resolve ensuing disputes between the parties, particularly those pertaining to the seaward boundary of the grant [48]. No action was taken, however, on the Special Master's report, following passage of the Act in 1953. For the Act's grant to California of the mineral rights in the three-mile belt vested in California all of the interests in resources that were then exploitable. By 1963, however, the technology to drill in deeper water had advanced sufficiently that the precise location of the line between state and federal submerged lands became economically significant. The United States filed an amended complaint reviving the Special Master's Report and redescribing the issues as modified by the Submerged Lands Act. Both the United States and California filed new exceptions to the Report and the case was set for argument [49].

The principal issue was the interpretation of the expressions "coast line" and "inland waters" as used in the Submerged Lands Act [50]. The Court reviewed the legislative history of the Act and developments in the international law of maritime boundaries since enactment of the Submerged Lands Act on 22 May 1953. It rejected the United States' contention that the government's positions in international affairs as of that date should control the Act's construction, and inferred that Congress had left the responsibility for defining "coast line" and "inland waters" to the Court [51]. In order to give content to the terms "coast line" and "inland waters," the Court adopted the definitions contained in the 1958 Convention on the Territorial Sea and the Contiguous Zone [52], which had been recently ratified by the United States and entered into force.

The Court then turned to the question whether straight baselines were to be drawn connecting the islands offshore of California's mainland coast. (The state had claimed as inland waters the intervening water areas, including the Santa Barbara Channel, promptly upon losing the 1947 decision.) The Court held that the use of straight baselines under Article 4 of the 1958 Convention was permissive, and that the choice lay with the federal government and not with the individual states. 381 U.S.

at 167-169. With equal timidity in the face of the Juggernaut government, it ruled against the state on the question of historic waters.

And in a point of potential domestic significance today, the Court further remarked that future changes in international law will not cause the boundary between state and federal lands to stray from its position under the terms of the 1958 Geneva Convention. The new Convention on the Law of the Sea, containing boundary provisions that differ in many respects from those of the 1958 Geneva Convention, may if it is ratified by the United States create one set of boundaries for purposes of the Submerged Lands Act and another -- containing a twelve-mile breadth, for example -- for delimiting the extent of American territorial waters. Ironically, it was precisely to avoid this circumstance that the Court adopted the provisions of the Geneva Convention [53]. (The number of divergences between the two boundaries, however, is such that there is little extant vitality in this element of the Court's reasonings [54].)

Many decisions have followed the 1965 California case. The 1967 decision in United States v. Louisiana [55], held that Texas' claim under the three-league grant of the Act would be measured by the boundary which existed in 1845 when Texas entered the Union, and not from artificial jetties built thereafter. Two years later, in what Justice Black in dissenting termed a "heads I win, tails you lose" decision, the Court held that, notwithstanding its 1967 decision, where erosion had caused the Texas shoreline to recede from its 1845 location, Texas' three-league grant must be measured from its present coastline [56].

The 1969 Louisiana Boundary Case [57] is significant principally for its application of the principles of the 1958 Geneva Convention to numerous geographic features of the Louisiana coastline. As an example, the Court held that dredged channels do not constitute "outermost permanent harbour works" within the meaning of Article 8 of the 1958 Geneva Convention, because they are not "raised structures" [58]. The Court referred to a Special Master a number of questions respecting the location of Louisiana's coastline that the Court did not decide [59]. Special Master Walter P. Armstrong, Jr., took testimony and received evidence on these issues and filed his report, dated 31 July 1974, with the Court. Both the United States and Louisiana took exception to portions of the report. In its decree of 7 March 1975, the Court overruled the exceptions of each and adopted the Special Master's recommendations [60].

In United States v. Maine [61], the United States filed suit against the thirteen Atlantic seaboard states, challenging those states' claims that their respective colonial charters had given them rights in the seabed and subsoil beyond three nautical miles into the Atlantic Ocean. The Court severed the action against Florida and referred the remaining case to Special Master Albert B. Maris to conduct hearings on the contentions of the parties. The Special Master's Report, dated

27 August 1974, agreed with the United States that these states had relinquished, upon forming the Union, whatever rights they once enjoyed in lands beyond the three-mile belt. The Supreme Court, in an opinion by Justice White, adopted the recommendations of the Special Master [62].

In another 1975 decision, the Court again addressed questions concerning the coastline of Florida [63]. This decision was similarly made upon exceptions of the United States and Florida to the Report of the Special Master, and it concerned both the seaward boundary of Florida's rights in the continental shelf of the Atlantic Ocean and Florida's boundary on the Gulf coast. The Court referred the status of Florida Bay back to the Special Master, and subsequently, a stipulated decree was entered [64].

The Supreme Court decided United States v. Alaska [65], the only submerged lands case the Court has not heard in its original jurisdiction, in 1975. The Court held that Alaska had not met its burden of proving that Cook Inlet was an "historic bay." Since Cook Inlet did not qualify as a juridical bay, the boundary of Alaska's submerged lands grant was measured from the low-water line of the shore of the inlet, not from a closing line drawn across its entrance.

Other recent submerged lands decisions include the second supplemental decree in United States v. California [66], which established closing lines across the entrances to several bodies of inland waters. That decree also specified a number of coastal structures such as jetties and groins to constitute "artificial extensions" of the coastline. In the same case the following year, the Court rejected the United States' claim that following the Act's passage it had retained title to the submerged lands within one nautical mile of Santa Barbara and Anacapa Islands off California's coast as part of the Channel Islands National Monument. The government based its argument on the "claim of right" exception to the grant of the Submerged Lands Act [67]. A 1980 decision in United States v. Louisiana [68], perhaps the final chapter in the Louisiana litigation, concerned an agreement between the United States and Louisiana providing for impounding oil royalties pending resolution of the boundary dispute [69].

The most recent, and possibly concluding, chapter in the California litigation was the Supreme Court's decision in 1980 that sixteen pile-supported piers on the California coast were not to be taken as part of the "coastline" of California under the Submerged Lands Act. The state argued that these facilities should be deemed port and harbor facilities within the meaning of Article 8 of the Geneva Convention, or as "artificial extensions" of the coastline such as groins, jetties and other artificial structures which, while having no connection with a port or harbor, had nonetheless been deemed portions of the juridical coastline [70]. Two other issues in the 1980 California decision were the closing lines of San Pedro and San Diego Bays. The Special Master had reported to the Court favorably on California's position, and the federal government declined to except to this portion of his report.

II.

In the submerged lands litigation today, four cases are active.

1. The Massachusetts Boundary Case (Vineyard and Nantucket Sounds). This dispute between the United States and Massachusetts has been tried and submitted to Special Master Walter E. Hoffman, in United States v. Maine, No. 35, Original. Massachusetts is claiming in each sound the submerged lands of narrow areas of putative high seas, basing its claim on the theory of "ancient title." The criterion for establishment of an ancient title is occupation from time immemorial. The theory differs significantly from the concept of historic waters, such as is mentioned in Article 7(6) of the Geneva Convention on the Territorial Sea and the Contiguous Zone. It is, to be sure, a theory not invoked previously in the submerged lands cases. Allusion to it is made, however, in the study, Juridical Regime of Historic Waters, Including Historic Bays, prepared by the International Law Commission in 1962. U.N. Doc. A/CN. 4/143, reprinted in II Yearbook of the International Law Commission [1962] 1, 12.
2. The New York and Rhode Island Boundary Case (Block Island Sound). Like the Massachusetts matter described in the preceding paragraph, the Block Island Sound case is a part of United States v. Maine, No. 35, Original, but in this instance involves a dispute between the states of Rhode Island and New York on the one hand, and the United States on the other hand. It was likewise tried before Judge Hoffman as Special Master, who rendered his report to the Supreme Court on 13 January 1984.

   Long Island Sound had long been conceded to be historic waters of the United States. The position of the government is that the historic internal waters of that Sound should be closed by baselines across the Race entrance at the eastern end of Long Island Sound, from Orient Point on Long Island to Plum Island, and from Plum Island to Race Point on Fisher's Island, and from Fisher's Island to Napatree Point, Rhode Island. Report of the Special Master, p. 7. Block Island Sound, lying easterly of Long Island Sound, was claimed by both states both as historic inland waters and as a juridical bay under the terms of Article 7 of the Geneva Convention on the Territorial Sea and the Contiguous Zone. The Special Master concluded that the states were unable to establish that Block Island Sound was historic inland waters of the United States. Report, p. 19. He found, however, that the waters of Long Island Sound and Block Island Sound taken together constituted a juridical bay under the terms of Article 7 of the Geneva Convention. As the parties had submitted, such a finding would necessarily be predicated

on a conclusion that Long Island was an extension of the mainland in accordance with the criteria set forth in The United States v. Louisiana, 394 U.S. 11, 66-67 (1969). The Special Master so concluded, reasoning:

> Long Island and the coast are situated and shaped such that they enclose a large pocket of water, which closely resembles a bay....Second, the geographic configuration of Long Island and the mainland forces the enclosed water to be used as one would expect a bay to be used. Ships do not pass through Long Island Sound and the East River unless they are headed for New York Harbor or ports on Long Island Sound.

Report, p. 46.

Finally, the Master recommended, as the line to enclose the inland waters of Long Island and Block Island Sounds, one drawn between Montauk Point on Long Island and Watch Hill Point, Rhode Island.

The United States excepted to the Report of the Special Master last May. In its supporting brief, filed by Mr. Claiborne, is the following observation:

> Although history is irrelevant, one is tempted to wonder how, in August 1776, General Washington would have answered the question whether Long Island is a true island after he had crossed the East River and temporarily escaped from a superior British force, winning a respite that may have saved the Revolution. We may perhaps let others present speak for him. Before the successful evacuation, John Adams worried about putting such a large part of the new nation's forces on Long Island, "from which retreat was virtually impossible." [71]

3. The Mississippi and Alabama Boundary Case (Mississippi Sound). In 1979 and 1980, the states of Mississippi and Alabama reactivated their cases in Supreme Court No. 9, Original, formally styled United States v. Louisiana. In issue in these motions was whether Mississippi Sound is inland waters or contains pockets or "enclaves" of high seas. The states contended that the waters of Mississippi Sound qualified as both juridical and historic bays, and too as inland waters by the employment of straight baselines. The United States, for its part, argued that by strict application of arcs-of-circles method of delimitation, there are generated pockets or enclaves of high seas where more than six miles' distance separates the mainland shore and the offshore barrier islands that form Mississippi Sound. The Special Master found that the waters of Mississippi Sound constituted a juridical bay,

Report, p. 22, and as well an historic bay within the meaning of the reference contained in Article 7, section 6 of the Geneva Convention. Report, p. 55. Mississippi and Alabama had also claimed the waters of Mississippi Sound under the theory of straight baselines, a submission which was perfunctorily rejected by the Special Master:

> I had occasion to deal with a similar coastline, that of the state of Louisiana, in an earlier report (July 31, 1974 at pp. 5-13) which was approved by the Court (420 U.S. 529, 43 L.Ed.2d 373, 95 S.Ct. 1180). I see no basis upon which to differentiate the situation of Mississippi and Alabama in regard to the matters there dealt with, and none for changing my views as there expressed. [Report, p. 5.]

The United States, as in the Block Island Sound case, has filed exceptions in the Mississippi Sound case.

4. The Alaska Boundary Case (Beaufort Sea). The Alaskan coastline from Icy Cape to the Canadian border on the Beaufort Sea -- a coastline nearly as long as California's -- is the subject of litigation presently pending before Special Master J. Keith Mann in United States v. Alaska, No. 84, Original. Among the issues presented for determination by the Special Master are these:

(a) The status of a barrier-island formation known as "Dinkum Sands" as either an island under Article 10 of the Geneva Convention, or a low-tide elevation under Article 11;

(b) The appropriate closing line of Harrison Bay, which lies to the west of Prudhoe Bay;

(c) Whether small pockets or enclaves of putative high seas, surrounded by territorial waters, are in truth high seas, or are to be assimilated to the territorial waters, particularly in light of historic American practice;

(d) Similarly, the status of such pockets having narrow stems of putative high seas which connect to the open high seas;

(e) Whether the United States, in practice if not by name, had before the advent of this litigation employed a system of straight baselines to mark the inner limit of American territorial waters. There has been testimony, by two political geographers of the world's acquaintance, that (1) the United States stands alone among nations of the world in not adopting straight baselines under the circumstances prevailing and (2) the baseline urged by Alaska are the most conservative to be found in the world.

Of the issues just described (which compose but a portion of the United States v. Alaska litigation), only the Dinkum Sands question has been tried before the Special Master.

Like Haleakala, the dispute between the United States federal government and the State of Hawaii over the status of the waters of the Hawaiian archipelago is dormant. My assumption is that the United States has been deterred from filing suit against that state because of intelligence that Hawaii has been eminently counseled by our executive director, John Craven.

III.

From their inception, the submerged lands cases were given a foreign-relations cast. The time of the filing of United States v. California, in 1945, assured that. And the Supreme Court's 1965 decision in California, holding that, in effect, the provisions of the Convention on the Territorial Sea and the Contiguous Zone were to be engrafted onto the Submerged Lands Act, reaffffirmed that condition. If one considers the full decisions of the Supreme Court as well as the reports of its Special Masters which did not result in full, reported decisions of the Court [72], it may not exaggerate to say there have been more adjudications of maritime boundaries in American domestic cases, employing principles of international law, than in all international tribunals combined.

That may strike some of you, particularly those from overseas, as a most unusual fact, and it no doubt accounts in large measure for the inclusion of this subject in a conference on international matters. That notwithstanding, from the states' standpoint these cases are nothing more than a division of property -- the American continental shelf -- between the federal government and the states. Indeed, during the debates in Congress leading to passage of the Submerged Lands Act, officials of the United States Department of State reassured Congress that whatever division of the continental shelf was made, it could have no impact on the conduct of our foreign relations [73]. The states are fond of pointing to the cases of Texas and Florida, which received nine-mile grants of submerged lands; nothing terribly untoward has befallen our foreign policy by virtue of these states' rights in the lands six miles beyond the territorial sea.

This foreign-relations cast to the cases has produced, not surprisingly, an inordinate and unwarranted deference to the positions of the executive branch in the litigation. While it is true that the states have occasionally prevailed on some of the issues tendered to the Court [74], clearly the largest prizes have been taken by the federal government. The two in particular are the question of straight baselines and the question of historic bays. On the question of straight baselines, the Supreme Court held in 1965:

> The national responsibility for conducting our international relations obviously must be accommodated with the legitimate interests of the states in the territory over which they are sovereign. [Nevertheless, w]e conclude that the choice under the Convention to use the straight-baseline method for determining inland waters claimed against other nations is one that rests with the Federal Government, and not with the individual States [75].

California had also asserted that Santa Monica and San Pedro Bays qualified as historic bays, a point on which the Supreme Court again accorded virtually total deference to the position of the United States:

> The United States disclaims that any of the disputed areas are historic inland waters. We are reluctant to hold that such a disclaimer would be decisive in all circumstances, for a case might arise in which the historic evidence was clear beyond doubt. But in the case before us, where there is questionable evidence of continuous and exclusive assertions of dominion over the disputed waters, we think the disclaimer decisive [76].

These positions were reaffirmed in the third Louisiana case in 1969 [77]. A protracted account of the effusive welcome that has usually greeted positions of the United States in this litigation is not feasible here, and in any event has been ably articulated elsewhere. For one, Jonathan Charney, who for a number of years was the government's chief trial lawyer in these cases, wrote a lengthy article in 1974 assailing the Supreme Court's habit of deference to the position of the executive in this litigation [78].

Since 1970, the position of the executive branch in the submerged lands litigation has been developed by the so-called "Baselines Committee." The evolution of the role of the Baselines Committee is best described in the words of former State Department legal advisor John R. Stevenson, in a 1972 memorandum recently declassified:

> The Committee on the Delimitation of the United States Coastline was formally established by a memorandum dated August 7, 1970, from the Acting Legal Advisor of the Department of State to the Executive Operations Group of the Law of the Sea Task Force. The Committee was established under the task force and consists of members from the Departments of State, Commerce, Justice, Interior and Transportation.
>
> Guidelines for the Committee's operations were set out in an attachment to the August 7 memorandum .... The purpose of the Committee was to delimit, provisionally, baselines, the territorial sea and the

contiguous zone for the entire coastline of the United States. The memorandum establishing the Committee indicated that the charts would contain sufficient caveats to indicate that they were not a final and definitive U.S. position. It further stated that:

> It is not intended that the charts resulting from the Committee's work will be circulated throughout the Government even as a provisional U.S. position, but rather will be available for use when current and pressing problems arise.

The original task was completed in late 1970 and, after approval by the members of the LOS Task Force, and notwithstanding the original intent, a full set of the charts was published in April 1971 and has been circulated throughout the government and made available to private individuals and foreign governments [79].

In like manner, another original purpose of the Baselines Committee has with time been altered. Whereas that purpose was to develop positions on the United States baseline for its territorial sea and contiguous zone, of late it appears to have concentrated much more on developing the federal position in the submerged lands litigation [80]. The states' principal objection to the Baselines Committee, I suppose, lies in its inclusion of a representative of the Department of the Interior. That Department is charged with managing the resources of the outer continental shelf, and, at least in the view of the states, seems not to have deviated from the acquisitive course it took during the years Harold Ickes was its Secretary. So, while the Government's positions in the litigation are proferred as positions of foreign affairs, they are in fact developed with the committee participation of a Department whose purpose there is to strengthen its hand in the litigation [81].

The confidence engendered by the Court's deference has, in the view of the states, induced the government to assume some absurdly conservative positions on baseline determination and delimitation. The clearest example is the drawing of straight baselines, which the Supreme Court made clear in the 1965 California decision was an election to be made by the federal government. In 1972, at the conclusion of a 13-page study, the State Department's Legal Advisor concluded that straight baselines should be drawn to enclose the inland waters of the Alexander Archipelago:

> In light of the fact that the Alexander Archipelago so clearly qualifies for the use of straight baselines, we believe such a system should be adopted and the lines drawn in a manner which generally encloses the straits and other waters of the

archipelago. Specifically, the lines should follow the coastlines of the seaward islands but be drawn across the entrances to all straits, channels, etc., running between islands.

We do not believe the use of such a system will have a negative impact on our law-of-the-sea negotiating position, nor do we believe a continued refusal to use such a system is justifiable in light of the fact that it is so clearly appropriate to this situation [82] [emphasis added].

Yet for reasons that have yet to come fully to light, the executive branch has still refrained from drawing straight baselines along the Alexander Archipelago, or elsewhere for that matter. Interestingly, Mr. Charney, the former chief of the Marine Resources Section of the Justice Department, told this group two years ago in Halifax, "the United States has not yet adopted a system of straight baselines on any of its coasts .... [I]t most certainly will ...." [83]

Another, related example of what the states deem absurdly conservative positions is the treatment of enclaves of high seas that are totally surrounded by territorial waters. This phenomenon occurs when perfunctory use of the arcs-of-circles method is applied to a chain of islands lying more than twice the breadth of the territorial sea from the mainland coast. A related phenomenon creates deep pockets, or "arms," or "cul-de-sacs" of high seas penetrating the territorial waters of the coastal state. In 1930, the United States proposed to the Conference for the Codification of International Law, held at The Hague, that such "objectionable pockets of high seas" be assimilated to the territorial seas when the islands creating these penetrating pockets lay no more than ten miles from each other [84]. Yet the Baselines Committee has refused to follow this practice of assimilating such enclaves and cul-de-sacs of putative high seas to the territorial seas, a refusal which, in large measure, precipitated the current proceedings in the Mississippi Sound case and in United States v. Alaska. In fact, in the Alaskan litigation, the United States has taken the position that the "assimilation and simplification proposal," as it was called, was merely that -- a proposal -- and did not represent the official position of the United States then or at another time. The Solicitor General of the United States, however, stated precisely to the contrary in 1949 [85].

The United States has understandably not sought to disabuse the court of the notion that these cases ineluctably entail matters of foreign affairs. The Solicitor General's office made the following remarks during oral argument in a recent submerged lands case:

> [I]f California's theory were accepted by this Court it would result in an extension of the territorial sea of the United States and its contiguous zone off the shores of all the United States' coastal domain [86].

Likewise, the following language has become boilerplate in the complaints filed by the government in these cases:

> The coastline to be used for determining the respective rights of the United States and Alaska under the Submerged Lands Act is the same coastline employed to determine the territorial sea of the United States in its conduct of foreign affairs. United States v. California, 381 U.S. 139, 165 (1965). By its conduct and claims, the State of Alaska casts uncertainty on a position of the United States as to the location of its territorial seas and threatens to embarrass the United States in the conduct of foreign affairs and thereby cause great and irreparable injury to the United States ...[87].

Yet, whatever construction of the Submerged Lands Act is urged by a state, and whatever construction is adopted by the Court, the government is unrestrained, as a simple matter of separation of powers, in the conduct of its foreign relations. Cf. Vermilya-Brown Co. v. Connell, 335 U.S. 377 (1948). It may, with the consent of neither the states nor the Court, adopt a thirteen-mile territorial sea, straight or erratic baselines, or undulating halibut zones.

IV.

Finally, a recent development may profoundly influence the perspective of the states in these cases. On 10 March 1983, President Reagan proclaimed that the United States enjoys an exclusive economic zone extending to a distance of 200 miles from the baseline from which the breadth of the territorial sea is measured [88]. Political considerations aside, the geographic significance of President Reagan's proclamation is not inconsiderable. The area of the United States EEZ encompasses 3.9 billion acres -- equal to one and two-thirds times the total land area of the United States and its territories [89]. Just as in the case of the Truman proclamation on the continental shelf in 1945, President Reagan's declaration of an American EEZ may be seen as a departure from existing principles of international law -- a departure that will serve to aggrandize the federal government, while the coastal states must content themselves with what the executive branch tells the Supreme Court the 1953 Submerged Lands Act meant. It is widely seen as a departure from existing principles of international law since the notion of an EEZ is not so well established as to constitute a principle of customary international law. Rather, it finds textual support in the 1982 Convention on the Law of the Sea which, of course, the Reagan Administration has declined to sign. In the view of much of the world then, the elements of the 1982 Convention are to be treated as a unit, a "package" [90]. That is to say, if

the Reagan Administration dislikes the seabed-mining provisions of the Convention, in this view it cannot at once repudiate them and embrace those which meet its national needs -- at least not those which have not yet attained to the status of customary international law. For if by 1969 the boundary provisions of the 1958 Convention on the Continental Shelf had not become customary international law [91], goes the argument, certainly by 1983 the notion of the EEZ had not.

There can be no doubt, it is noteworthy, that the Reagan Proclamation draws on the 1982 Convention to define the American EEZ. During the recently concluded trial in the Gulf of Maine case, Judge Gros asked Davis Robinson, the United States Legal Adviser and agent for the United States, "What is the precise meaning in this text [the Reagan Proclamation] of the formula 'to the extent permitted by international law?' Would it be right to read this formula in the light of the 'guidelines reflected in the 1982 Law of the Sea Convention' mentioned during the hearing by the United States?" On 9 May 1984, Mr. Robinson gave his reply to Judge Gros:

> The President then announced three decisions "to promote and protect the oceans interest of the United States in a manner consistent with those fair and balanced results in the Convention and international law." First, "the United States will recognize the rights of other states in the waters off their coasts, as reflected in the Convention" subject to their recognition of the rights and freedoms of the United States. Second, "the United States will exercise and assert its navigation and overflight rights and freedoms on a worldwide basis in a manner that is consistent with the balance of interests reflected in the Convention." The third decision was the proclamation of an exclusive economic zone.
>
> As the text of the proclamation and the President's statement reveal, the proclamation was prepared in the light of the guidelines reflected in the 1982 Convention regarding coastal state rights in the exclusive economic zone and the duty to respect navigation and other high seas freedoms therein. Our response is accordingly affirmative to Judge Gros' inquiry as to whether it would be right to read the language he cited in the light of the guidelines reflected in the Convention [92].

In another harkening to the Ickes era, the Department of Interior has boasted of its role in securing the proclamation of the EEZ.

> We, at the Department of the Interior, are exceedingly proud of the role that we played in the initial phase of the establishment of an exclusive economic zone: it began with a memo from Secretary

> James Watt to the Cabinet in August of 1982 .... That initial effort was carried to fruition by Secretary of the Interior-Designate Judge William P. Clark, then acting as the National Security Advisor to the President [93].

And what does Interior think of the economic prospects for the mineral resources of the new American EEZ?

> Where were we just 30 years ago in the OCS? We thought that 600 feet was the technological limit of outer continental shelf activity. Just a few months ago, private industry placed a platform on the outer continental shelf in 1,080 feet of water [a platform which] will allow us to take a production platform into 6,000 feet of water ....
>
> The proclamation of the American EEZ developed from a meeting held in the Department of Interior headquarters. We also led off the meeting by having two of the career scientists with the Geological Survey stand up and talk about a recent discovery in the Pacific, near the Hawaiian Islands, of something you have all heard about -- the cobalt-rich manganese crust ... when it was over, it was as if the issue had been settled. There was no further discussion. Finding this vast resource within 200 miles of the Hawaiian Islands answered the question for many of us [94].

Do these developments lend credence to Jon Charney's thesis that the United States will eventually adopt straight baselines? And does it mean as well perhaps a twelve-mile territorial sea for the United States? After all, these are but some of the "guidelines reflected in the Convention" to which the United States Legal Adviser referred in his remarks to Judge Gros last May.

One final point of state perspective: Perhaps only when Mr. Claiborne assumes his seat on the Supreme Court, and thus must recuse himself from these cases, do the aspirations of the states have a breath of a chance.

APPENDIX A

This appendix catalogues and summarized federal statutes in which are found elements of the boundary principles which have been treated in the submerged lands litigation. Some of these statutes operate by reference to the baseline from which the territorial sea is measured. In others, a distinction is maintained between territorial waters and high seas, whether in those terms or by some similar verbal formulation.

1. Fishery Conservation and Management Act. 16 U.S.C. Section 1801 et seq.

This statute is in some respects the counterpart, as to fisheries management, of the Outer Continental Shelf Lands Act. Under the FCMA the United States asserts fisheries jurisdiction in the oceans to the so-called "200-mile limit" (actually, by definition, 197, or 191, miles). The statute asserts jurisdiction for the regulation of fishing with respect to various kinds of fish defined in the statute itself, in an area known as the "Fishery Conservation Zone." This has as its inner boundary, a line coterminous with the seaward boundary of each of the coastal states, and an outer boundary of a line drawn in such a manner that each point on it is 200 nautical miles from the baseline from which the territorial sea is measured. Thus, the Fishery Conservation Zone by definition would seem not to include any high seas enclaves within the territorial waters of the coastal states, since it is by definition only the seas which lie outside the seaward boundary of each state's territorial waters. Nevertheless, in an excess of caution, Congress in 1983 amended the FCMA to extend the jurisdiction of a state "to any pocket of waters that is adjacent to the state and totally enclosed by lines delimiting the territorial sea of the United States." 16 U.S.C. Subparagraph 1856, P.L. 94-265.

2. Atlantic Tunas Convention Act. 16 U.S.C. Section 971, et seq.

This act provides for the implementation by the United States of the provisions of the International Convention for the Conservation of Atlantic Tunas, signed in 1966. The act employs a "fisheries zone" defined the same as the Fishery Conservation Zone of the Fishery Conservation and Management Act.

3. Fisherman's Protective Act. 22 U.S.C. Sections 1971-1980.

This Act in general deals with reimbursement by the United States to private owners of vessels documented or certified under the laws of the United States which are seized at any time during any voyage for the purpose of fishing beyond the fishery conservation zone (as defined in section 1802 of Title 16) unless the vessel is commanded by other than a citizen of the United States. The seizure by a foreign country must be on the basis of claims in territorial waters or the high seas which are not recognized by the United States. The Act details the mechanics by which the amount to be reimbursed is calculated and other such matters. By definition, it applies only to high seas and foreign territorial waters over which a foreign nation is exercising jurisdiction with respect to fishing regulations.

4. Marine Mammal Protection Act. 16 U.S.C. Sections 1361-1384.

This statute generally provides for the preservation and management of stock of certain specified marine mammals. The jurisdiction of the statute extends, as defined, to the territorial sea of the United States and the waters included within a zone, contiguous to the territorial sea of the United

States, the inner boundary of which is the seaward boundary of each coastal state and the outer boundary is a line drawn in such a manner that each point on it is 200 nautical miles from the baseline from which the territorial sea is measured.

5. North Pacific Fisheries Act. 16 U.S.C. Sections 1022-1035.

This Act implements the obligations of the United States, by way of a federal statute, of those undertakings which the United States entered into by the International Convention for the High Seas Fisheries of the Northern Pacific signed in Tokyo 9 May 1952, as amended by the International Convention for the High Seas Fisheries of the Northern Pacific Ocean signed in Tokyo 25 April 1978. The Act defines terms used, with respect to territory, as follows: "Convention Area means all waters, other than territorial waters, of the North Pacific Ocean which for the purposes of this chapter shall include the adjacent seas." And, it further defines "Fishery Conservation Zone" as that phrase is defined in the Fishery Conservation and Management Act discussed above. The latter area is exclusive of the territorial waters.

6. North Pacific Halibut Act. 16 U.S.C. Sections 772-772j.

This Act is an implementation of a convention entered into between the United States and Canada for the preservation of halibut in the North Pacific Ocean and Bering Sea. By definition, it extends to the following: Territorial waters of the United States, which means waters contiguous to the western coast of the United States and territorial waters contiguous to the southern and western coasts of Alaska, and territorial waters of Canada which are defined to mean the territorial waters contiguous to the western coast of Canada. Convention waters are defined as being the territorial waters of the United States, of Canada, and the high seas of the North Pacific Ocean and the Bering Sea, extending westerly from the limits of the territorial waters of the United States and Canada.

7. Salmon and Steelhead Conservation and Enhancement Act. 16 U.S.C. Sections 3301-3345.

This Act, passed by the Ninety-Sixth Congress in 1980, represents the latest legislative effort to attempt to regulate salmon and steelhead fishing in the coastal waters of Oregon and Washington and the Columbia River Basin. The purpose of the Act is declared to be an equitable distribution of fishing rights among the several competing groups which fish the waters under the jurisdiction of the Act, specifically including the Indian tribes of the State of Washington and the State of Oregon, with particular respect to their treaty rights. The Act specifies that because of federal court decisions in the cases of United States v. Washington and Sohappy v. Smith, the fishing capacity of non-treaty fishermen in the conservation areas exceeds that required to harvest the available salmon resources. The Commission is set up to promulgate regulations and in general implement the requirements of the Act. As far as territorial

jurisdiction is concerned, the Act applies to the "Columbia River Conservation Area," which is further defined to be all habitat of salmon and steelhead within the Columbia River drainage basin and those areas within the Fishery Conservation Zone over which the Pacific Fishery Management Counsel has jurisdiction as well as the territorial seas of Oregeon and Washington. The definition of the geographic jurisdiction of the statute would seem to merge high-seas enclaves with territorial waters.

8. Sockeye Salmon or Pink Salmon Fishing Act. 16 U.S.C. Sections 776-776f.

This statute implements the provisions of a convention entered into by the United States and Canada for the protection of sockeye salmon fisheries of the Fraser River System, originally signed in 1930 and amended in 1956. The statute defines its jurisdiction to be the convention waters as these are defined in Article I of the Convention.

9. Sponge Act. 16 U.S.C. Sections 781-785.

This statute prohibits the taking of sponges of less than a prescribed size from the waters of the Gulf of Mexico or the Straits of Florida "outside of state territorial limits." This statute was peripherally involved in the Skiriotes case, since one of the arguments that Skiriotes made was the federal statute had preempted the regulation of taking of sponges and therefore the Florida State statute under which he was convicted could not apply. The court answered that there had been no federal preemption since the federal statute regulates the size of sponges to be taken in territorial waters outside of the state territorial limits, whereas the state statute regulated the method by which sponges could be taken (prohibiting the use of diving equipment).

10. Tuna Conventions Act of 1950. 16 U.S.C. Sections 951-961.

This statute implements the provisions of two conventions entered into by the United States and Mexico and the United States and Costa Rica, respectively, regarding the regulation of fishing for tuna. Basically, the statute authorizes the formation of a commission in the United States which shall promulgate regulations implementing the recommendations and other actions of the international commissions organized under the provisions of the two conventions.

11. Vessel Documentation Act. 46 U.S.C. Sections 65-65w.

This statute deals with the various requirements with respect to documentation of vessels by the United States. As far as it is applicable to fisheries, it prohibits the engaging in fishing by any vessel not of United States registry (with certain exceptions) within the Fishery Conservation Zone. This zone is defined as that set forth in the Fishery Conservation and Management Act, discussed above.

12. Whale Conservation and Protection Study Act. 16 U.S.C. Sections 917 et seq.

This Act states that the United States has extended its authority and responsibility to conserve and protect all marine mammals, including whales, "out to a 200 nautical mile limit by enactment of the Magnusen Fishery Conservation and Management Act." The statute then goes on to specify the particular need to conserve and protect certain species of whales and provides for the Secretary of Commerce to undertake comprehensive studies of all whales found in waters subject to the jurisdiction of the United States.

13. Endangered Species Act. 16 U.S.C. Sections 1531-1543.

The purpose of this Act is expressed to be the intent of the United States to preserve and enhance various species of fish, wildlife, and plants which are facing extinction. Specifically, the United States pledges itself to engage in such conservation pursuant to the provision of various international agreements and treaties such as the Migratory Bird Treaty with Japan, the Convention on Nature Protection and Wildlife Preservation, the International Convention of Northwest Atlantic Fisheries, etc. The Act authorizes the Secretary of the Interior or the Secretary of Commerce, as the case may be, to identify endangered species, which thereafter become subject to specific and voluminous regulations promulgated under the authority of the Act. So far as jurisdiction is concerned, the Act provides that the regulation shall obtain to the taking of any endangered species within the United States, or the territorial sea of the United States or upon the high seas. This definition would appear to obviate any distinction between enclaves of high seas and territorial waters.

14. Fish Restoration and Management Projects Act. 16 U.S.C. Sections 777-777k.

The Act provides for the annual appropriation of federal funds to the states through their respective fish and game departments for restoration and management projects regarding migratory fish. Allocation of the annual appropriation amongst the states is made by the Secretary of Interior, after deduction of certain administrative expenses, as follows: 40 percent in the ratio which the area of each state, including coastal and Great Lakes waters (as determined by the Secretary of Interior), bears to the total area of all the states, and 60 percent in the ratio which the number of persons holding paid licenses to fish for sport or recreation in the state bears to the number of such persons in all states.

15. Deepwater Port Act of 1974. 33 U.S.C. Section 1501 et seq.

This statute concerns the regulation of deepwater ports in waters beyond the territorial limits of the United States. (Nothing in this statute, it is provided, is to affect the "legal status" of the high seas.) While the jurisdiction to issue the federal license lies with the Secretary of

Transportation, such a license will not issue without the approval of the governor of each adjacent coastal state. The law of the nearest adjacent coastal state is declared to be the law of the United States applicable to any deepwater port and will be administered and enforced by the officers of the United States. The nearest adjacent coastal state shall be that state whose seaward boundaries, if extended beyond three miles, would encompass the site of the deepwater port.

16. Marine Protection, Research, and Sanctuaries Act of 1972. 16 U.S.C. Section 1401 et seq.

It is the purpose of this statute to regulate, inter alia, the dumping of material transported by any person from a location outside the United States, if the dumping occurs in the territorial sea or the contiguous zone of the United States. The general demarcation line between jurisdiction of the Clean Water Act and of this Chapter, with exceptions of pipes or outfalls, is the three-mile limit of the territorial seas. Pacific Legal Foundation v. Quarles, 440 F.Supp. 316 (D.D.Cal. 1977). Except as may be authorized by a permit issued pursuant to this title, no person shall dump any material transported from a location outside the United States (1) into the territorial sea of the United States, or (2) into a zone contiguous to the territorial sea of the United States, extending to a line twelve nautical miles seaward from the baseline from which the breadth of the territorial sea is measured, to the extent that it may affect the territorial sea or the territory of the United States.

17. Longshoreman's and Harbor Worker's Compensation Act. 33 U.S.C. Section 902.

This Act applies to employee's injuries occurring in the "United States" which is defined in a geographical sense as the several states and territories and the District of Columbia, including the territorial waters thereof.

18. Oil Pollution Act. 33 U.S.C. Section 1001 et seq.

All sea areas within fifty miles from the "nearest land" are prohibited zones. The "nearest land" is defined as the baseline from which the territorial sea of the territory in question is established, with the exception of the Australian coast. If evidence is obtained that a ship registered in another country party to the International Convention for the Prevention of Pollution of the Sea by Oil has discharged oil in violation of the convention but outside the territorial sea of the United States, such evidence is to be forwarded to the State Department.

19. International Regulations for Preventing Collisions at Sea. 28 U.S.T. 3459, and 33 C.F.R. Section 82.01.

These new "COLREGS" speak in terms of "internal waters" and "high seas" which are not the same as those usages are employed in the Convention on the Territorial Sea and the Contiguous Zone, and the Submerged Lands Act.

20. Outer Continental Shelf Lands Act. 43 U.S.C. Section 1331 et seq.

This Act gives the United States jurisdiction over the subsoil and seabed of the outer continental shelf. The law of the "adjacent state" is the law of the United States for that portion of the subsoil and seabed of the outer continental shelf which would be within the area of the state if its boundaries were extended seaward to the outer margin of the outer continental shelf, and so long as they are not inconsistent with federal law. The character as high seas of the waters above the outer continental shelf and the right to navigation and fishing therein are not affected by this Act. Section 1337(g) concerns the grant of oil and gas leases by the Secretary of the Interior. That section specifically concerns the leasing of lands within three miles of the seaward boundary of any coastal state. Where the Secretary selects a tract which may contain one or more oil or gas pools or fields underlying both the outer continental shelf and land subject to the jurisdiction of the adjacent coastal state, the Secretary must offer the governor of such coastal state the opportunity to enter into an agreement concerning the disposition of revenues which may be generated by a federal lease within such area in order to permit the fair and equitable division between the state and federal government. All revenues, bonuses and royalties attributable to oil and gas pools underlying both the outer continental shelf and submerged lands subject to the jurisdiction of any coastal state are to be deposited into an escrow account until the fair and equitable disposition of such revenues and any interest which has accrued can be arrived at.

21. Submerged Lands Act. 43 U.S.C. Section 1301 et seq.

This Act confirms and establishes title and ownership of the lands beneath navigable waters within the boundaries of the respective states. Section 1301 defines the boundary of the coastal state as extending from the coast line to a maximum of three geographical miles into the Atlantic or Pacific Oceans, or a maximum of three marine leagues into the Gulf of Mexico. It reserves the right of the United States to the natural resources in that portion of the subsoil and seabed of the continental shelf lying seaward and outside of the area of lands beneath navigable waters as defined in Section 1301. Section 1311 confirms title in the states to the lands beneath navigable waters within the boundaries of the respective states and the right and power to manage, administer, lease, develop and use the said lands and natural resources all in accordance with applicable state law. Section 1312 confirms the seaward boundary of each original coastal state as lying three geographical miles distant from its coast line. The Act further provides for the retention of certain rights of navigational servitude and regarding the purchase of natural resources, in said lands and navigable waters for the constitutional purposes of commerce, navigation, national defense and international affairs.

22. Alaska Native Claims Settlement Act. 43 U.S.C. Section 1601 et seq.

This Act was enacted to provide a fair and just settlement of all claims by natives and native groups of Alaska, based on aboriginal land claims. It abolishes all aboriginal titles to submerged land underneath all water areas, both inland and offshore, and extinguishes any aboriginal hunting or fishing rights. The Act allocates and reallocates title to land in Alaska to the Native Village Corporations established by the Act. In several pending actions, Alaskan natives have taken the position that this Act did not extinguish aboriginal title seaward of the territorial limits of Alaska.

23. Outer Continental Shelf Lands Act Amendments of 1978. 43 U.S.C. Section 1801 et seq.

This chapter deals with outer continental shelf resource management. The purposes of the Act are to establish policies and procedure for managing the oil and natural gas resources of the outer continental shelf. It further assures that states will have timely access to information regarding activities on the outer continental shelf and opportunity to review and comment on decisions relating to such activities. Beginning at section 1811, the Act establishes an offshore oil spill pollution fund. The terms used in this subchapter, such as "vessel," "offshore facility," and "oil pollution," are defined in terms of their geographic location. The applicable areas of regulation under this Act include the waters above the outer continental shelf, waters above submerged lands seaward from the coastline of a state, the adjacent shoreline of such a state, or the waters of the contiguous zone. "Oil pollution" is further defined as the presence of oil in or on the waters of the high seas outside the territorial limits of the United States (i) when discharged in connection with activities conducted under the Outer Continental Shelf Lands Act; or (ii) causing injury to or loss of natural resources belonging to, appertaining to, or under the exclusive management authority of, the United States; or the presence of oil in or on the territorial sea, navigable or internal waters, or adjacent shoreline of a foreign country, in a case where damages are recoverable by a foreign claimant under this subchapter.

24. Coasting and Fishing Act. 46 U.S.C. Section 251 et seq.

Section 251 of this Act provides that vessels of 20 tons and upward are deemed vessels of the United States entitled to the privileges of vessels employed in the coasting trade or fisheries. This statute further provides that except as otherwise provided by treaty or convention to which the United States is a party, no foreign-flag vessel shall, whether documented as a cargo vessel or otherwise, land in a port of the United States its catch of fish taken on board such vessels on the high seas or fish products processed therefrom, or any fish or fish products taken on board such vessel on the high seas

from a vessel engaged in fishing operations or in the processing of fish or fish products.

Section 316(d) of this Act provides that no foreign vessel shall, under penalty of forfeiture, engage in salvaging operations on the Atlantic or Pacific coast of the United States, or in territorial waters of the United States on the Gulf of Mexico, except when authorized by a treaty or in accordance with provisions of Section 725 of this title. Section 316(e) permits the assistance to and salvage of vessels in territorial waters under the treaty between the United States and Mexico.

25. Steamboat Inspection Act. 46 U.S.C. Section 361 et seq.

Section 391a concerns the inspection of vessels carrying certain cargoes in bulk. The policy underlying this statute pertains to the creation of substantial hazards to life, property, the navigable waters of the United States and the resources contained therein and to the adjoining land, by the carriage by vessels of certain cargoes in bulk or in residue. It is premised on the fact that the existing international standards for inspection and enforcement are incomplete and that further enforcement is required to mitigate the hazards to life, property, and the marine environment. Standards developed through these regulations are not to impede or interfere with the right of innocent passage or any legitimate use of the high seas in accordance with recognized principles of international law. "Marine environment" is defined as the navigable waters of the United States and the land and resources therein and thereunder; the waters and fishery resources of any area over which the United States asserts exclusive fishery management authority; the seabed and subsoil of the outer continental shelf of the United States, the resources thereof and the waters superjacent thereto; and the recreational, economic and scenic values of such waters and resources. The section expressly does not apply to any foreign vessel, not destined for, or departing from, a port or place subject to the jurisdiction of the United States, that is in innocent passage through the territorial sea of the United States or in transit through the navigable waters of the United States which form a part of an international strait. The statute provides for the minimum standards concerning the necessary equipment to be contained on oil tankers and new product carriers of specified deadweight tons. In order for a vessel of the United States to have on board oil or hazardous material in bulk as cargo or in residue, it must be issued a Certificate of Inspection. The statute makes unlawful the operation of any vessel subject to the provisions of this section in or on the navigable waters of the United States where said vessel is not in compliance with the provisions of said section.

26. Salvage Acts. 46 U.S.C. Section 721 to Section 731.

Section 730 sets forth the statute of limitations for bringing a suit for the recovery of remuneration for rendering

assistance or salvage services. The two-year time limit set forth is effective unless the court in which the suit is brought shall be satisfied that during such period there had not been any reasonable opportunity of arresting the assisted or salved vessel within the jurisdiction of the court or within the territorial waters of the country in which the libelant resides or has his principal place of business.

27. Death on High Seas Act. 46 U.S.C. Section 761 et seq.

This Act provides for a right of action and provisions for recovery where the death of a person is caused by a wrongful act, neglect or default occurring on the high seas beyond a marine league from the shore of any state. It specifically allows the personal representative of the decedent to maintain a suit for damages, in admiralty, for the exclusive benefit of the decedent's spouse, parent, child or dependent relative against the vessel, person or corporation which would have been liable if death had not ensued. Cases have construed the congressional purpose of this section as leaving unimpaired the rights under state statutes as to deaths on water within territorial jurisdiction of a state. See, e.g., The Tungus v. Skovgaard, 358 U.S. 588, 3 L.Ed.2d 524 (1959).

Section 767 exempts the Great Lakes and any waters within the territorial limits of any state or any navigable waters in the Panama Canal Zone from the provisions of this Act. Further, the provisions of any state statute giving or regulating rights of action or remedies for death are not affected by this chapter.

28. Public Vessels Act. 46 U.S.C. Section 781 et seq.

This chapter provides for suits in admiralty against the United States for damages caused by a public vessel of the United States and for compensation for towage and salvage services rendered to a public vessel of the United States.

Section 782 establishes the venue for bringing such an action as follows: the suit shall be brought in the District Court of the United States for the district in which the vessel or cargo charged with creating the liability is found within the United States, or if such vessel or cargo be outside the territorial waters of the United States, then in the District Court of the United States for the district in which the party so suing, or any of them, reside or have an office for the transportation of business in the United States; or in case none of such parties reside or have an office for the transaction of business in the United States, and such vessel or cargo be outside the territorial waters of the United States, then in any District Court of the United States.

29. Fisherman's Protective Act of 1967. 22 U.S.C. Section 1971 et seq.

This Act establishes protection of vessels on the high seas and in territorial waters of foreign countries upon seizure of any vessel of the United States by a foreign country on the

basis of claim to territorial waters or the high seas which are not recognized by the United States, or if any general claim of any foreign country to exclusive fishery management authority is recognized by the United States, and any vessel of the United States is seized by such foreign country on the basis of conditions and restrictions under such claim, if such conditions and restrictions are unrelated to fishery conservation and management and, among other things, fail to allow fishing vessels of the United States equitable access to fish subject to such country's exclusive fishery management authority. The Act allows for the reimbursement of the owner of such vessel for any direct charges paid to secure release of the vessel and crew and places restrictions on importation of fishery or wildlife products from countries which violate international fishery or endangered or threatened species programs.

30. Federal Aviation Act of 1958 and Antihijacking Act of 1974. 49 U.S.C. Section 1301 et seq.

In these statutes, the "United States" is defined to include the "territorial waters" and the overlying airspace thereof.

31. Independent Safety Board Act of 1974. 49 U.S.C. Section 1901 et seq.

This Act establishes a National Transportation Safety Board. It requires an investigation by the Safety Board to determine the facts, conditions, and circumstances and the cause or probable cause of any major marine casualty, except one involving only public vessels, occurring on the navigable waters or territorial seas of the United States.

32. Vessels in Territorial Waters of the United States. 50 U.S.C. Section 191 et seq.

This statute provides for the regulation of anchorage and movement of vessels during a national emergency of any vessel, foreign or domestic, in the territorial waters of the United States. It allows the president of the United States to institute such measures and issue such rules and regulations to safeguard against destruction, loss, or injury from subversive acts, accidents, vessels, harbors, ports, and waterfront facilities in the United States and all territory and water, continental or insular, subject to the jurisdiction of the United States.

33. Ocean Thermal Energy Conversion Research, Development and Demonstration Act. 42 U.S.C. Section 9001 et seq.

This Act was enacted to provide for ocean thermal energy conversion research and development. Section 9161 contemplates the ratification of a Law of the Sea Treaty and provides for amendment of these regulations to conform to the provisions for amendment of these regulations to conform to the provisions of such treaty. Section 9163 states that ocean thermal energy conversion facilities and plantships licensed under this chapter

do not possess a status of islands and have no territorial seas of their own. Further, except as otherwise provided in this chapter, nothing is to alter the responsibilities and authorities of a state or the United States within the territorial seas of the United States. The law of the nearest adjacent coastal state to which an ocean thermal energy conversion facility located beyond the territorial sea and to license under this chapter is connected by electric transmission cable or pipeline, is declared to be the law of the United States and shall apply to such facility, to the extent not inconsistent with other federal laws. The application of state taxation laws is not, however, extended hereby outside the seaward boundary of any state.

34. Controlled Substances Import and Export Act. 21 U.S.C. Section 951 to Section 966.

This Act makes it unlawful for any person on board a vessel of the United States, or on board a vessel subject to the jurisdiction of the United States on the high seas, to knowingly or intentionally manufacture or distribute, or to possess with intent to manufacture or distribute, a controlled substance. (See Section 955a.) Section 955b defines "high seas" as all waters beyond the territorial seas of the United States and beyond the territorial seas of any foreign nation. Section 955 makes it unlawful for any person to bring or possess on board any vessel or aircraft, or on board any vehicle of a carrier, arriving in or departing from the United States or the customs territory of the United States, a controlled substance unless such substance or drug is a part of the cargo entered in the manifest or part of the official supplies of the vessel, aircraft or vehicle.

35. Submarine Cable Act. 47 U.S.C. Section 21 et seq.

This Act provides for criminal punishment of any person who willfully and wrongfully breaks or injures or who attempts or aids in the breaking or injuring of a submarine cable in such manner as to interrupt or embarrass telegraphic communication. At section 33, the Act sets forth the jurisdiction and venue of actions and offenses in the District Courts of the United States, whether the infraction complained of was committed within the territorial waters of the United States or on board a vessel of the United States outside of said waters.

36. Communications Act of 1934. 47 U.S.C. Section 301 et seq.

This portion of this Act outlines the special provisions specifically relating to radio communication or transmission of energy. In section 321, the Act states all radio stations, including government stations and stations on board foreign vessels when within the territorial waters of the United States, shall give absolute priority to radio communications or signals relating to ships in distress, and further provides other regulations concerning distress signals.

NOTES

1. Gales & Seaton's History of Debates in Congress, Vol. I, p. 774, 15 August 1789.
2. The equal-footing doctrine holds that subsequently admitted states attain to all the incidents of sovereignty enjoyed by the original thirteen states, one of which is ownership and dominion over tidelands within state borders. See Shively v. Bowlby, 152 U.S. 1, 26 (1894); Knight v. U.S. Land Ass'n, 142 U.S. 161, 183 (1891); but see Summa Corp. v. California ex rel. Lands Commission, ___U.S. ___, 80 L.Ed.2d 237 (1984).
3. Executive Proclamation 2667, 59 Stat. 884 (1945).
4. An order of the Supreme Court, 342 U.S. 891 (1951), directed the Special Master to conduct hearings and make recommendations to the Court on the following questions:

   > Question 1. What is the status (inland waters or open sea) of particular channels and other water areas between the mainland and offshore islands, and, if inland waters, then by what criteria are the inland water limits of any such channel or other water areas to be determined?
   >
   > Question 2. Are particular segments in fact bays or harbors constituting inland waters and from what landmarks are the lines marking the seaward limits of bays, harbors, rivers and other inland waters to be drawn?
   >
   > Question 3. By what criteria is the ordinary low watermark on the coast of California to be ascertained?

5. Hollick, U.S. Foreign Policy and the Law of the Sea, 103-104 (1981).
6. See especially E. Bartley, The Tidelands Oil Controversy (1953).
7. Complaint, United States v. California, No. 12 Original, United States Supreme Court, October 1945 Term.
8. Hearings on S.J. Res. 208 (1939), 220.
9. Letter of Harold L. Ickes, Secretary of the Interior, to Olin S. Proctor, dated 22 December 1933, reprinted in Hearings on S.J. Res. 83 and 92 (1939), 172-173; and Hearings on H.J. Res. 118 et al. (1945), 18.
10. E. Bartley, The Tidelands Oil Controversy, 129.
11. In re Joseph Cunningham, 55 I.D. 1, 3 (1934). The rule of the Proctor and Cunningham decisions was followed in succeeding years in a number of cases, cited in Bartley, op. cit., at 131-132, n.25.
12. Earl Warren, then Attorney General of California, testified before Congress in support of the states' title to the submerged lands. Hearings on H.J. Res. 176 and 181 (1939), 198. Warren was Chief Justice when the Supreme Court handed down its second decision in United States v.

California, 381 U.S. 139, though he declined to participate in the case.

13. Hollick, supra, p. 19.
14. Anti-Smuggling Act, 49 Stat. 517; 19 U.S.C. 1701-1711, 3 August 1935.
15. U.S. Department of State, Foreign Relations of the United States 1939, 36-37, 765, as cited in Hollick, supra, pp. 19-20.
16. Unpublished memorandum from National Archives Record Group 48, as quoted in Hollick, supra, p. 30.
17. This suggestion is given in Bartley, The Tidelands Oil Controversy, p. 134, and is predicated on a letter from Mr. Ickes to Mr. Bartley, which Mr. Bartley quotes in his book.
18. Bartley, supra, p. 136.
19. Unpublished memorandum from C.E. Jackson et al. to Secretary Ickes dated 28 May 1943, quoted in Hollick, supra, p. 33.
20. Foreign Relations of the United States, 1945, II, 1482, quoted in Hollick, pp. 34-35.
21. Statement of Secretary Ickes in Hearings on S.J. Res. 48 and H.J. Res. 225 (1946), 9. A copy of this answer is on file in the library of the Office of the Attorney General, San Francisco.
22. In the United States' motion to strike, dated March 1946, the government cites the Punishment of Richard Mylward for Drawing, Devising, and Engrossing a Replication of the Length of Six Score Sheets of Paper. In that case according to the government,

> [T]he filing of a replication amounting to six score sheets of paper which "might have been well contrived in 16 sheets of paper," so outraged the court that, in addition to imposing a fine upon the pleader, it ordered that the warden of the fleet take the pleader into custody and "bring him into Westminster Hall, on Saturday next, about ten of the clock in the forenoon, and then and there shall cut a hole in the myddest of the same engrossed replication * * * and put the same Richard's head through the same hole * * * and then, the same so hanging, shall lead the same Richard, bareheaded and barefaced, round about Westminster Hall, whilst the courts are sitting, and shall shew him at the bar of every of the three Courts within the Hall * * *."

The Supreme Court's records do not disclose whether the same fate was meted the Attorney General of California.

23. H.J. Res. 225, 79th Cong., 2d Sess. (1946); 92 Cong. Rec. 9642, 10316 (1946).
24. 92 Cong. Rec. 10660 (1946). The veto was sustained. 92 Cong. Rec. 10745 (1946).
25. 332 U.S. at 43-45.
26. 420 U.S. 515 (1975).
27. 332 U.S. at 31-33.

28. United States v. Louisiana, 339 U.S. 699, 704-705 (1950).
29. United States v. Texas, 339 U.S. 707, 718-720 (1950).
30. The equal-footing doctrine holds that subsequently admitted states attain to all the incidents of sovereignty enjoyed by the original thirteen states, one of which was ownership and dominion over the tidelands within their state borders. See Shively v. Bowlby, 152 U.S. 1, 26 (1894); Knight v. U.S. Land Ass'n., 142 U.S. 161, 183 (1891); Pollards Lessee v. Hagen, 44 U.S. (3 How.) 222, 228-229 (1845).
31. 339 U.S. at 718.
32. United States v. California, 344 U.S. 872 (1952).
33. 43 U.S.C. Sections 1301-43 (1976).
34. See United States v. Louisiana, 363 U.S. 1, 28 (1960).
35. 43 U.S.C. at Sections 1311(b) (1) (1976).
36. Id. at Section 1301(c).
37. The single exception is United States v. Alaska, 442 U.S. 184, 186 n.2 (1975).
38. 43 U.S.C. at Section 1332(a).
39. 347 U.S. 272 (1954).
40. U.S. Const. art. IV, Section 3, cl. 2.
41. 347 U.S. at 275.
42. 43 U.S.C. at Section 1311.
43. Id. at Section 1301.
44. 363 U.S. 1 (1960).
45. 363 U.S. 121 (1960).
46. Id. at 122-129.
47. 381 U.S. 139 (1965). A thorough treatment of this decision is beyond the scope of this article, and has in any event been given elsewhere. See 51 A.B.A. J. 772 (1965); 59 Am. J. Intl. L. 930 (1965).
48. See e.g., United States v. California, 332 U.S. 804, 805 (1947) (order and decree) and 382 U.S. 448, 453 (1966) (supplemental decree).
49. 381 U.S. at 148-149.
50. Among the other issues addressed in the decision, the Court considered whether several indentations of the California coast constituted bays under the 1958 Geneva Convention, such that "closing lines" should be drawn across their entrance points, from which the three-mile belt would be measured, rather than from the shore line within the bay. It also treated the requirements for making out a claim of a historic bay, an exception to the strict geographic requirements of Article Seven of the 1958 Geneva Convention respecting "juridical" bays; the meaning of "ordinary low-water" as used in Article Three; and the status of roadsteads and new coast lands formed by "artificial" accretion. Id. at 170-177.
51. Id. at 164-165.
52. 15 U.S.T. (Pt. 2) 1607, T.I.A.S. No. 5639.
53. 381 U.S. at 165.
54. The nine-mile submerged lands grants to Texas and Florida are the most salient examples of diverging territorial-sea and submerged-lands boundaries. In other instances, the

territorial-sea boundary lies seaward of the submerged-lands boundary -- where there has been landfill or coastal construction which under Article 8 of the Convention created a new baseline for territorial-sea purposes, but which constructions were approved by the Government only upon the state's disclaimer of additional submerged lands. See 33 C.F.R. Section 320.4(f).

55. 389 U.S. 155 (1967).
56. United States v. Louisiana, 394 U.S. 1, 10 (1969).
57. 394 U.S. 11 (1969).
58. Id. at 36-40.
59. Id. at 74-78. United States v. Louisiana, 420 U.S. 529 (1975).
61. 420 U.S. 515 (1975).
62. Id. at 522-24.
63. United States v. Florida, 420 U.S. 531 (1975).
64. United States v. Florida, 425 U.S. 791 (1976).
65. 422 U.S. 184 (1975).
66. 432 U.S. 40 (1977).
67. United States v. California, 436 U.S. 32 (1978).
68. 452 U.S. 726 (1980).
69. The agreement is mentioned in A. Shalowitz, 1 Shore and Sea Boundaries 199 n.42 (1962).
70. United States v. California, 447 U.S. 1 (1980).
71. Exception of the United States and supporting brief, p. 22, May, 1984 (citations omitted).
72. As examples, there are the 1974 Report of the Special Master in United States v. Louisiana, No. 9, Original; the 1974 Report of the Special Master in United States v. Florida, No. 52, Original; and substantial portions of the 1980 Report of the Special Master in United States v. California, No. 5, Original.
73. See Hearings before the Senate Committee on Interior and Insular Affairs on S.J. Res. 13 and other bills, 83d Cong., 1st Sess., 1053, 1378. This too is the conclusion reached by Mr. Justice Black in dissenting in United States v. California, 381 U.S. 139, 205-206.

During debate on section 2(c) of the Submerged Lands Act the following exchange took place between Senator Long of Louisiana and Senator Cordon, the committee chairman:

> Senator Long. In view of the fact that this amendment did not carry, I think the bill should either state that we are bound by the Boggs formula [a State Department position on bays] or that we are not bound by it. Since it is the chairman's view that we are not bound by such formula, I would like --
>
> Senator Cordon. There is no question in the chairman's mind as that we are not bound by any opinion, expert or otherwise, that is not comprehended in the statutes of the United States or in the decisions of its courts.

Hearings before the Committee on Interior and Insular Affairs, United States Senate, 83rd Congress, 1st Session, on S.J. Res. 13, etc. and Part 2 thereof, Hearings in Executive Sessions (1953), p. 1385. (Emphasis added.)

The Supreme Court has elsewhere noted that the passage of the Submerged Lands Act transformed what had been perceived as a question of the limits of American territorial waters into a simple domestic controversy over the division of the continental shelf. United States v. Louisiana, 363 U.S. 1, 30-36 (1960). The Court there laid heavy emphasis upon the legislative history of the Act in reaching its conclusion, and especially upon the testimony before the Committee on Interior and Insular Affairs, of Jack B. Tate, deputy legal advisor to the Department of State. Id. at 31.

Mr. Tate, accompanied by Assistant Legal Advisor Raymund T. Yingling, testified at length before the Senate Committee concerning the effect of the Submerged Lands Act upon the conduct of foreign affairs by the federal government. 1953 Senate Hearings, pp. 1051-1086. Mr. Tate prefaced his testimony with this statement:

> I should like to make it clear at the outset that the Department [of State] is not charged with responsibility concerning the issue of Federal versus State ownership or control.

1953 Senate Hearings, p. 1956.

Under questioning, Mr. Tate said that pursuant to the 1945 Presidential Proclamation (Proclamation No. 2667, 59 Stat. 884), the United States claimed the right of exploration and control of the seabed and subsoil of the Continental Shelf. (1953 Senate Hearings, p. 1055.) The significance of the 1945 Proclamation, as his testimony showed, was to make the division of the Continental Shelf strictly a matter between the federal government and the states. Congress could divide the claimed area, which therefore was within the United States, in any manner it desired, as a domestic matter.

Reiterating his theme that the State Department had no interest in federal-state problems, Mr. Tate commented:

> As far as concerns the matter of the States versus the Federal Government, and the Federal Government against the States, I do no think that is a matter the State Department could pass on.

1953 Senate Hearings, p. 1956.

74. In the 1965 California case, for example, the Supreme Court held with the state that the line of "ordinary low water" referred to in the Submerged Lands Act was to be taken as the line of mean lower-low water, and not the line of mean low water. 381 U.S. at 175-176. No California official has

yet been able to determine, however, whether that ruling enlarged California's submerged lands holdings to any measurable extent.

75. 381 U.S. at 168.
76. Id. at 175.
77. 394 U.S. at 72-73, 77.
78. Charney, Judicial Deference in the Submerged Lands Cases, 7 Vand. J. Int. L. 383 (1974). See also Note, A Jurisprudential Problem in the Submerged Lands Cases: International Law in a Domestic Dispute, 90 Yale L.J. 1651 (1981).
79. Memorandum of John R. Stevenson to Ambassador McKernan, 30 August 1972, declassified 9 July 1984, p. 2.
80. Letter of Michael W. Reed, attorney, United States Department of Justice, to the author, 20 May 1982.
81. To be fair, Mr. Reed, a friend of the author, expresses sincere puzzlement over this perspective of the states. In commenting on an earlier article of mine on other aspects of these cases, Mr. Reed wrote:

> As a matter of general interest I would like, some day, to know why every counsel for a coastal state gets so wrought-up over the [Baseline] Committee and its membership. The Federal Government has not taken a position that the Committee is the final word in coastline delimitation. Witness our participation in all of the original actions and willing compliance with the Supreme Court decrees. In the context of this litigation the Committee simply provides the federal position.

Letter of Michael W. Reed to the author, dated 20 May 1982, p. 5.

82. Memorandum of John R. Stevenson to Ambassador McKernan, et al., 30 August 1972, p. 12.
83. Charney, The Offshore Jurisdiction of the States of the United States and the Provinces of Canada -- A Comparison, delivered 24 June 1982, at the Sixteenth Annual Conference of the Law of the Sea Institute, p. 13.
84. Report of the Second Commission (Territorial Sea), League of Nations Doc. C. 230. M. 117. 1930. V. (1930); see also Boggs, Delimitations of the Territorial Sea, 24 Am. J. Intl. L. 541 (1930).
85. Memorandum of the United States in Response to Request of Special Master of 29 June 1949, United States v. California, No. 11, Original, 12 August 1949, p. 19.
86. Transcript of oral argument, United States v. California, No. 5 Original, 17 March 1980, pp. 41-42.
87. Complaint, United States v. Alaska, No. 84 Original, pp. 5-6.
88. Weekly Compilation of Presidential Documents, Vol. 19, No. 10 (1983), pp. 383-385.

89. Proceedings, A National Program For The Assessment And Development Of The Mineral Resources Of The United States Exclusive Economic Zone, U.S. Geological Survey, proceedings at symposium held 15-17 November 1983 (1984), p. 1.
90. B. Zuleta, Introduction, United Nations Convention on the Law of the Sea, U.N. Doc. A/Conf. 62/122 (1983) xix.
91. North Sea Continental Shelf Cases 1969 I.C.J. 3 (1969); see C. Hopkins, Delimitation of the Continental Shelf -- Conventional and Customary International Law, 1970 Cambridge L.J. 4 (1970).
92. Verbatim record, public sitting of the Chamber, International Court of Justice C 1/CR 84/23, 9 May 1984, pp. 9-14.
93. Statement of William P. Pendley, Department of the Interior, in symposium proceedings, supra, p. 3.
94. Pendley, in symposium proceedings, pp. 4, 8.

ENVIRONMENTAL PROTECTION OF THE COAST AND OFF-SHORE

Robert J. McManus
General Counsel
National Oceanic and Atmospheric Administration*

NOAA's primary role is not that of an environmental regulator. Through the National Marine Fisheries Service (NMFS), we regulate fishing seaward of state waters under the Magnuson Fishery Conservation and Management Act (MFCMA), but purists could argue that fishery management is not hard-core environmental protection. We also have regulatory responsibility under Title III of the Marine Protection, Research, and Sanctuaries Act for designated national marine sanctuaries, and we are responsible for the conduct of seabed mining beyond the OCS under the Deep Seabed Hard Mineral Resources Act, including its environmental provisions. We also conserve porpoises, whales, and other endangered species. But much of our role in environmental protection is as a referee between other federal agencies and the several states. In that role, we have enjoyed a front row seat for a number of controversies that have erupted in the past three years.

The Coastal Zone Management Act (CZMA), for whose implementation NOAA is primarily responsible, is central to our involvement in most of the issues I will discuss this morning. Although the CZMA provides NOAA with virtually no authority to regulate directly in the area of environmental protection (except in connection with estuarine sanctuaries established under Section 315), our procedural and interpretive regulations implementing the CZMA are often crucial to environmental decisions in which both states and the federal government have an interest. Since the CZMA provides the weird prism through which NOAA is required to view most environmental issues, I will explain it briefly.

The CZMA is a stereotype of a breed of legislation in vogue during the late sixties and early seventies, by no means limited to environmental topics. Section 1 invariably embodied Congress' "finding" that there was a crisis of one sort or another. Section 2 contained a "statement of policy" in conflicting and bromidic generalities. Section 3 invariably provided for federal largesse in the form of planning grants to state agencies, which would then develop plans for responding to the perceived crisis. With equal invariability, Section 4 conditioned the dispensing of federal funds on the development of a state plan which met criteria to be promulgated by some federal agency. Since all the political pressures were for a federal legislative response to the perceived crisis, and for the transfer of funds from the federal government to the states, the federal criteria invariably erred on the side of vagueness. Similarly, the federal agency's review of state plans to ascertain whether they were truly consistent with the federal criteria also erred on the side of liberality.

The CZMA contained an additional inducement for states to participate in the solution to the crisis of the moment: Section 307 generally provides that, once a state coastal zone management plan (CZMP) has been found by the Secretary to satisfy the federal criteria, the federal government must behave in a manner "consistent" with it. Section 307(c)(1) deals with the extent to which federal authorities must behave consistently when they conduct activities "directly affecting" the coastal zone, in which case they must be consistent "to the maximum extent practicable." With respect to federally permitted activities, on the other hand, Section 307(c)(3) requires federal permitting agencies to behave in a manner fully consistent with the CZMP, whenever the permitted activities will "affect land or water uses of the coastal zone." (Minor variations on this theme are expressly applicable to permits for the exploration and development of the resources of the outer continental shelf, set forth in Section 307(c)(3)(B).) There are important differences between the federal consistency provisions applicable under Section 307(c)(1) to federal actions "directly affecting" the coastal zone and those applicable under Section 307(c)(3) to permitted activities which "affect land or water uses of the coastal zone."

Section 307(c)(1) requires the federal action agency to make a determination of consistency, subject to review by the designated coastal zone management agency in the affected state. For better or for worse, the CZMA provides no binding mechanism for resolving disputes between states and a federal agency which insists that its activity will not directly affect the coastal zone, or, if it does, will be "consistent to the maximum extent practicable" with the CZMP. Section 307(h)(1) provides for mediation by the Secretary of Commerce, but only with the consent of both parties to the dispute. Mediation has been used only once, in connection with OCS lease sales (of which more later), but never successfully.

Section 307(c)(3), on the other hand, approaches the matter differently. It requires the applicant for a federal permit to "certify" that its activity, if permitted by the federal action agency, would be consistent with the CZMP. Again, the state agency may review any such certification. An objection lodged by a coastal state under Section 307(c)(3) prevents issuance of the permit unless, on petition of the applicant or on his own initiative, the Secretary of Commerce decides that the permitted activity is "consistent with the objectives or purposes of the act" or is "necessary in the interest of national security." These decisions by the Secretary are erroneously referred to in the statute as "appeals." I say "erroneously," because "appeals" to the Secretary of Commerce under Section 307(c)(3) require him to determine de novo whether the activity to be permitted is a good idea, assuming its lack of "consistency" with the CZMP; he does not in fact determine whether the state correctly interpreted and applied its federally-approved CZMP. (Presumably, a permit applicant aggrieved by a state agency's decision can seek review in state courts under the state's Administrative Procedure Act.)

I now wish to draw your attention to two crucial provisions of NOAA's regulations implementing the CZMA.

First, NOAA promulgated a regulation in 1979 fleshing out the vague statutory standard of "consistent to the maximum extent practicable" used in connection with federal activities that directly affect the coastal zone under Section 307(c) (1). 15 CFR Section 930.32(a) provides:

> The term "consistent to the maximum extent practicable" describes the requirement for federal activities including development projects directly affecting the coastal zone of states with approved management programs to be fully consistent with such programs unless compliance is prohibited based upon the requirements of existing law applicable to the federal agency's operations. If a federal agency asserts that compliance with the management program is prohibited, it must clearly describe to the state agency the statutory provisions, legislative history, or other legal authority which limits the federal agency's discretion to comply with the provisions of the management program. (Emphasis supplied.)

Ponder those words. To a federal program manager, they must be the moral equivalent of a crucifix to a vampire. I cannot think of a regulatory formulation that would give the state agency a more effective veto over a federal project. Note how the regulation slips in the word "compliance" -- another nail in the vampire's coffin. Note also that neither 15 CFR Section 930.32(a) nor any other provisions of NOAA's CZMA regulations bothers about the deceptively simple word "consistent." The trigger here is "directly affecting" (whatever that means) with no limitation on the geographical scope of the consistency requirement of Section 307(c)(1). There would be little difficulty in applying Section 307(c)(1) and 15 CFR Section 930.32(a) to a federal activity which actually takes place in the coastal zone -- that is, in the geographical area for which the state's plan was written. If, for example, a state CZMP prohibits the construction of buildings in front of the primary line of sand dunes, then it should not be too difficult to decide whether a post office can be built there.

But NOAA's interpretation of the statute goes much further, and requires federal activities conducted outside of the coastal zone also to be conducted in a manner "consistent to the maximum extent practicable" with the CZMP. Nobody really knows what that means. Notwithstanding some indications to the contrary in an internal NOAA directive [1], many people believe that it means that the federal government must make the same management decision in its jurisdiction that the state made with respect to its narrow coastal zone, extending seaward to the three-nautical-mile limit in most cases. What if the state adopts a rule as part of its federally- approved CZMP that prohibits certain activities within three miles of its coast? Does it

follow that the federal government must reflect the same prohibition in its management regime for the natural resources of the Exclusive Economic Zone?

Moreover, the quoted regulatory provision leaves very little room for the action agency to argue that it is not practicable to be "fully consistent," unless it can point to some provision of federal law prohibiting it from behaving in that manner. Would a federal regulation suffice? What about a federal statute which makes the activity discretionary, but which also provides that, if the federal agency acts at all, it must act in a manner inconsistent with the CZMP? Does Section 307(c)(1), as interpreted by NOAA, nullify such a statute? It can at least be said that the combined effect of the statute and the regulation creates uncertainty.

Turning now to NOAA's implementation of Section 307(c)(3), 15 CFR Section 930.121 states the standard which the Secretary must apply in determining whether a federally permitted activity to which a state agency has objected is nonetheless "consistent with the objectives or purposes of the act":

> The term "consistent with the objectives or purposes of the act" describes a federal license or permit activity, or a federal assistance activity which, although inconsistent with a state's management program, is found by the Secretary to be permissible because it satisfies the following four requirements:
> (a) the activity furthers one or more of the competing national objectives or purposes contained in Sections 302 and 303 of the Act,
> (b) when performed separately or when its cumulative effects are considered it will not cause adverse effects on the natural resources of the coastal zone substantial enough to outweigh its contribution to the national interest,
> (c) the activity will not violate any requirements of the Clean Air Act, as amended, or the Federal Water Pollution Control Act, as amended, and
> (d) there is no reasonable alternative available (e.g., location, design, etc.) which would permit the activity to be conducted in a manner consistent with the management program.

Ponder those words, too. A new Secretary of Commerce, looking only at the naked prescription of Section 307(c)(3), might think that he or she had the authority to decide, "Well, hell, let her rip! This project serves the national interest!" The new Secretary will not be delighted to learn from his lawyers that the standard of Section 930.121 is lawful and binding on him, and that he therefore cannot decide to "let her rip" unless he can make all of the four required findings. As you all know, moreover, those findings will be of no practical utility unless they are based on an administrative record and will withstand judicial scrutiny under the "arbitary and capricious" standard

of the Administrative Procedure Act. The applicant who approaches the Secretary of Commerce under Section 307(c)(3) has a tough row to hoe.

In sum, NOAA's regulations seem to maximize the leverage of the states under both of the statutory provisions we are considering. The statute and the regulations are unclear as to the geographical scope of Section 307(c)(1) and as to the standard a state agency can impose. They make it illegal for a federal agency to issue a permit after a state agency has lodged an objection under Section 307(c)(3) to that permit. They provide for no substantive federal review of the basis of any such state objection (notwithstanding that the CZMP is, by virtue of the Secretary's approval, at least partly a creature of federal law). By circumscribing the Secretary's discretion under Section 307(c)(3), they make it difficult for him to decide that issuance of a particular permit would serve the national interest.

Finally, by promulgating criteria under Section 305(b) that allow CZMPs to contain relatively vague policy statements, NOAA has permitted states to make debatable claims of "inconsistency" [2].

In the remainder of my remarks, I will discuss some recent disputes involving the natural resources of the coast and offshore. In most of them, the structure of the CZMA just described has been of overwhelming importance.

OUTER CONTINENTAL SHELF DEVELOPMENT

You have all probably been waiting for me to mention Secretary of the Interior v. California [3], decided by the Supreme Court last term. The principal issue in this case was whether Lease Sale 53, off the California coast, was a federal activity "directly affecting" the coastal zone within the meaning of Section 307(c)(1) (as opposed to development permits and production licenses, which are expressly subject to the consistency provisions of Section 307(c)(3)(B)). Even during Secretary Andrus' term, the Interior Department consistently maintained that OCS activities are reviewable only under Section 307(c)(3)(B) of the CZMA, and that State involvement at the lease sale stage is limited to Section 19 of the Outer Continental Shelf Lands Act Amendments of 1978 (which gives the Interior Department substantially more discretion than a hard-nosed application of Section 307(c)(1) would do). In Interior v. California, the petitioner argued that lease sales do not directly affect the coastal zone, on the plausible basis that there would be no effect on the coastal zone, good or bad, without the intervening decisions implicit in the lessee's development plans, which would eventually be reviewed for consistency under Section 307(c)(3)(B). The State of California, acting through the California Coastal Commission (CCC), took a contrary position: it argued that a "direct effect" was no less direct merely because other federal decisions would precede any identifiable physical impact on the

state's coastal zone; it maintained that the effect was "direct" enough if it was the predictable fall-out of the major federal decision implicit in the lease sale.

In January of this year, a five-justice majority of the Supreme Court reached the result for which the Interior Department had been contending for many years, but it did so on a theory which nobody had thought would determine the outcome. The Court did not trouble itself about the tortured issue of how "direct" an effect must be to trigger Section 307(c)(1). It decided that the phrase "directly affecting," inserted without any accompanying legislative history by the conference committee that negotiated the CZMA, was added to ensure that activities in federal enclaves (e.g., military bases, Indian reservations) geographically located in the coastal zone, but excluded from its statutory definition, would require consistency review. The Court buttressed its decision with an elaborate discussion of the legislative history of the CZMA, in which it found repeated congressional refusals to consider OCS activities other than under the express provisions of Section 307(c)(3)(B).

Nonetheless, the Court's simple explanation of the phrase "directly affecting" may mean that federal activities occurring upland from or beyond the coastal zone are not subject to consistency review under Section 307(c)(1) at all. Accordingly, the Court's opinion was considered especially threatening by state coastal zone establishments, who feared that all sorts of federal activities which they had always thought "directly affected" their coastal zones were now completely out of reach of their review.

As a result, legislation was promptly introduced in both Houses of Congress to reverse the result achieved in the Supreme Court's decision (S. 2324 and H.R. 4589). Moreover, both bills would in essence codify NOAA's definition of "consistent to the maximum extent practicable" in 15 CFR Section 930.32(a). If either bill were enacted, the Executive Branch would be stymied should it ever wish to revisit the issue of whether 15 CFR Section 930.32 (a) is a good idea.

As a matter of fact, the Executive Branch has that opportunity right now. While forces in the Congress were moving to reverse the Supreme Court's decision, NOAA responded by issuing an advance notice of proposed rulemaking [4]. We asked for comments on the meaning of the Supreme Court's decision: specifically, whether there were other federal activities which, in light of the Court's reasoning, were now also beyond the scope of Section 307(c)(1). Second, we asked whether it was appropriate now to formulate a regulatory definition of the phrase "directly affecting" [5]. Finally, we asked whether there were any other provisions of NOAA's CZMA regulations which should enjoy revision at this time. A series of public hearings on the ANPR were held in a number of cities.

The results of the ANPR need not be dramatic. Conforming NOAA's existing regulations with the simple holding of the Supreme Court could be done with a stroke of a pen. The difficult issue is whether that holding can be limited to its

facts (that is, the issue of OCS lease sales) or will be extended on the basis of its logic to most or all other federal activities outside the legally-defined "coastal zone." There is a tactical minefield here: the further we extend the reach of the Supreme Court's decision, the more we risk generating political pressure for legislation along the lines of that now pending before both houses of Congress. On the other hand, to the extent we limit the Supreme Court's decision to its holding, we will be unable to remove federal activities other than OCS lease sales from the conceptual and procedural muddle of Section 307. And, while the Supreme Court's action gave us an opportunity to revisit gracefully some of the issues under our regulations discussed above, congressional supporters of the pending legislation have linked legislative reversal of the Supreme Court's holding with a codification of the rigid standard of 15 CFR Section 930.32(a), as mentioned previously.

Reasonable minds may differ on Section 930.32(a), and on the regulations limiting the Secretary's discretion in deciding appeals under Section 307 (c)(3), but fundamental changes in these regulations may not be politically acceptable. The fact is that coastal states, and particularly their coastal zone agencies, are fond of NOAA's current regulations. They want effective vetos over federal decisions, and they are alarmed by the prospect of a Secretary of Commerce with the legal leeway to "let her rip." Federal agencies, like the Interior Department and the Army Corps of Engineers, as well as the developmental constituencies to which they frequently respond, would clearly like some regulatory relief in the form of revisions to NOAA's CZMA regulations, but they too realize that a Commerce Department assault on the states' considerable power under the CZMA regulations could stimulate amendments to the statute.

Whatever the eventual fallout from Interior v. California, the Secretary of Commerce will still have to wrestle with the appeals he receives under Section 307(c)(3). Indeed, the number of appeals to the Secretary may increase if the Supreme Court's opinion is not reversed by legislation: some disputes that might have been negotiated between coastal states, the Interior Department, and the oil companies during consistency review at the lease sale stage will be deferred to the exploration or production permit stage and consistency review under Section 307(c)(3), including appeals to the Secretary.

The Secretary has reserved decisional authority in these appeals to himself personally, but practice has been to assign the staff work to NOAA. That responsibility logically devolves on NOAA's Office of General Counsel. At this writing [6], three appeals are pending before the Secretary from objections of the CCC to proposals for exploration or production permits on the OCS. In view of my own role in the process, I cannot properly comment on pending appeals nor will I attempt to interpret the one Secretarial decision thus far made public, on Exxon's appeal from California's objection to its production plan for the Santa Ynez Unit. But I can tell you what the Secretary did in a partial decision issued on 18 February 1984.

Exxon proposed to further develop the oil and gas reserves in the Santa Ynez Unit by constructing up to four oil and gas production platforms and expanding the use of an offshore storage and treatment vessel (OS&T) permanently moored less than half a mile outside California's territorial waters. The CCC objected to this proposal as posing an unacceptable risk to the natural resources of the coastal zone from an oil spill resulting either from vessel collision with the OS&T or from tankers used in transshipping the oil to refineries in Texas.

We spent a lot of time developing the Secretary's lengthy decision, not only because we think that conflicts between coastal states and the Interior Department's OCS leasing plans are important, but also because we wished to shed as much light as we properly could on the Secretary's approach to the four findings required under 15 C.F.R. Section 930.121. In summary, the Secretary found the development of the Santa Ynez Unit met one or more of the competing policy objectives set forth in Sections 302 and 303 of the CZMA, and indicated that this first element of the test under Section 930.121 would "normally" be satisfied. Furthermore, since the Interior Department's license stipulations require OCS operators to obtain and comply with EPA discharge permits under the Clean Water Act and meet applicable air quality standards, the Secretary also concluded that the third element of 15 CFR Section 930.121, requiring conformity with the Clean Air Act and the Clean Water Act, was also satisfied. bpp As to whether or not the environmental burden of the proposed activity outweighed its contribution to the national interest, the Secretary determined that he could not plausibly engage in the balancing test required by the regulation without the benefit of the environmental impact statement that was, at the time of his initial decision, scheduled to be completed later this year (and has been). As to whether there was a reasonable alternative available to the applicant, the Secretary decided to await decisions of state and municipal permitting authorities on an alternative production plan which involved abandonment of the OS&T and expansion of existing onshore facilities to treat the crude oil before transshipment by tanker through the Panama Canal to the Gulf of Mexico. Accordingly, on 18 February 1984, the Secretary stayed Exxon's appeal pending completion of the EIS and the decisions by the local permitting authorities.

Two other OCS appeals are now pending before the Secretary. In the first, Union Oil has appealed from CCC's objection to its exploratory drilling plans in a federally designated marine sanctuary (under a lease entered into before the sanctuary was designated). The drill rig would be located in the buffer zone abutting fairways established by the Coast Guard as part of a vessel traffic separation scheme. The State was concerned, therefore, that the risk of collisions and discharges of oil could interfere with the breeding grounds of the endangered brown pelican on Anacapa Island in the sanctuary.

In the second, Exxon has appealed from CCC's objection to its exploration plan for the Santa Rosa Unit; the perceived

inconsistency with California's CZMP related to potential interference of drilling operations with a seasonal thresher shark gillnet fishery near the proposed rig. CCC wants Exxon to confine its OCS operations to months when there is no shark fishing.

Other appeals pending include one from the Northwestern Pacific Railroad to the CCC's objection to its proposed abandonment of a railway line across the Eel River, an action that must be authorized by the Interstate Commerce Commission. We have also recently received the first appeal under Section 307(d) from Hudson, New York, which has applied for a federal grant to construct a refinery on the Hudson River.

While I cannot comment further on pending appeals, I can make some observations about the secretarial appeal process in the light of our experience to date. I have already referred to the limitations on the Secretary's discretion represented by 15 CFR Section 930.121. Assuming those regulations remain in more or less their present form, I must wonder whether NOAA and the Commerce Department have unwittingly put themselves in the position of having to make a lot of environmental decisions which they are no better suited or equipped to make than the federal action agency -- or, for that matter, the state coastal zone management agency. To refer again to the first Exxon decision, the balancing test required by the second element of NOAA's regulation at 15 CFR Section 930.121(b) plainly invites the Secretary to consider items like EISs. By the same token, the alternative grounds for a Secretarial override under Section 307(c)(3), on the basis that the activity to be permitted is "necessary in the interest of national security," invites decisions that balance the views of the Defense Department against those of the Sierra Club. I wonder whether the Commerce Department is an institution well equipped to make such decisions.

The answers to such questions must await a much longer track record under Section 307(c)(3), and judicial review of some of the Secretary's decisions. For the time being, I can only say that if NOAA's General Counsel's Office were a private law firm, its partners would be looking forward to billing an awful lot of associate time on 15 CFR Sections 930.121 and 930.122.

OCEAN DUMPING

You cannot depart a United States port with wastes for the purpose of dumping them at sea without a permit from EPA (or, in the case of dredge spoils, from the Corps of Engineers) [7]. Ocean dumping is plainly a federally permitted activity within the scope of Section 307(c)(3)(A). Here again, as you might expect, the environmental sensibilities of the coastal states have collided with perceived policy imperatives at the federal level.

The burning issue we have faced in this area relates to incineration at sea. Incineration at sea has been found by

EPA's lawyers [8] to constitute ocean dumping within the meaning of Title I of the Marine Protection, Research and Sanctuaries Act. Incineration at sea is an appealing way to dispose of extremely toxic materials like polychlorinated biphenyls (PCB). It is difficult to dispose of these substances on land and, since they are on the "blacklist" in Annex I of the London Ocean Dumping Convention, they therefore cannot be dumped at sea in an unaltered physical state. Although modern technology involving combustion at extremely high temperatures promises almost complete destruction of these toxic wastes, few communities would be happy about hosting an incinerator site to store, handle, and burn them.

As noted previously, Section 307(c)(3) requires the applicant for a federal permit to certify that his activity, if permitted, would be conducted in a manner consistent with a state CZMP. In the only ocean dumping case that has come to our attention thus far, however, the applicant for a permit to incinerate at sea decided not to render a consistency certification to the states in the region. As a result, we were asked by Alabama's Attorney General whether we believed the applicant had complied with Section 307(c)(3) of the CZMA. We decided that it had not. In so deciding, however, we slickly avoided what we maintained was a factual issue: whether the permitted activity would "affect land or water uses in the coastal zone." In the case of the State of Alabama, I suspect the facts would have supported such a finding, because the applicant proposed to erect a storage and transshipment facility on Mobile Bay from which the incinerator vessel would accept the toxic wastes involved and steam seaward. Under such circumstances, it does not require much of a leap of logic to conclude that the "land or water uses" of Alabama's coastal zone would be affected, triggering consistency review under Section 307(c)(3).

A harder question, not presented so far, is whether a state in which the wastes are never physically present has a claim to consistency review under Section 307(c)(3). In this context, I note that the EPA ocean dumping regulations require the applicant for an ocean dumping permit to send a copy of the application to the coastal zone management agency of <u>any</u> state within 500 miles of the intended dump site [9]. As a result of the CZMA provisions that I have discussed at length, however, it seems that if any such state lodges an objection, EPA cannot issue the permit unless the applicant prevails on appeal to the Secretary of Commerce. Neither the CZMA nor NOAA's implementing regulations, moreover, contemplate that the Secretary will decide whether a state agency had jurisdiction to lodge an objection under Section 307(c)(3)(A) in the first place.

This legal problem is scarcely limited to the subject of ocean dumping. It underscores the procedural anomaly created by the statute and regulations when two federal agencies -- the permitting agency and the Department of Commerce -- must both render decisions based on the wisdom of a particular undertaking without apparent authority to decide whether a coastal state has

lawfully invoked, interpreted, and applied a federally approved CZMP.

WETLANDS PROTECTION

NOAA's statutory mandate to referee coastal zone disputes has led to an intractable legal problem involving permits under Section 404 of the Clean Water Act, which prohibits the discharge of dredged material into the "waters of the United States" without a permit from the Corps of Engineers [10]. Note that the structure of the Clean Water Act, like that of the Ocean Dumping Act, is a general prohibition coupled with provisions for federal permits, usually issued on a case-by-case basis. Therefore, the Corps of Engineers, like EPA, has had to deal with the nightmare of issuing permits for perhaps hundreds of thousands of applications per year on a case-by-case basis.

Its solution has been to propose a series of 26 "nationwide permits" (NWPs) [11]. The Corps' 26 NWPs cover supposedly minor activities, from the construction of culverted road crossings and the placement of tide gauges to fill projects involving less than ten cubic yards of material and the placement of mooring buoys in conformity with Coast Guard regulations. Like certain EPA discharge permits, the NWPs are "general permits," authorizing particular activities on stated conditions. They are "permit" in name only, being rules of general applicability. They presuppose that there will be no "applicants," and that the cumulative impact of the activities they authorize will be environmentally acceptable, not requiring case-by-case reviews. In recent months, the Corps' pragmatism has bumped into Section 307 of the CZMA.

Nobody is entirely sure whether Section 307(c)(1) or Section 307(c)(3) applies, and Congress did not focus on the issue. Neither of the two possible answers is entirely satisfactory. If issuing an NWP is a federal activity "directly affecting" the coastal zone of a given state, then the Corps must determine that the NWP is "consistent to the maximum extent practicable" under 15 CFR Section 930.32(a), and argue that "... compliance is prohibited based upon the requirements of existing law applicable to the federal agency's operations." If one looks no further than the literal wording of Section 307(c)(3), one might conclude that NWPs, like other federal "permits," are subject to consistency review under Section 307(c)(3); if so, however, there is no identifiable "applicant" to certify to "consistency." But assuming that such a certification is provided by somebody, and that a state objects, we invite appeals to the Secretary, asking him to make each of the four findings under 15 CFR Section 930.121. Without an applicant, an environmental impact statement or any information whatever about a particular project, it might be difficult to render legally defensible appellate decisions upholding the NWPs in states which have objected under Section 307(c)(3). In any event, with NOAA's acquiescence reflected in inter-agency correspondence dating back to 1980, the Corps has assumed that the NWPs are

"permits" within the meaning of Section 307(c)(3). The inconvenient absence of "applicants" was finessed by having the Corps seek "general concurrences" from coastal states under the provisions of 15 CFR Section 930, Subsection D, applicable by its own terms (lamentably) to activities requiring a federal license or permit -- in other words, Section 307(c)(3) activities.

Predictably, a number of coastal states objected, thereby preventing the implementation of the NWPs within their boundaries. At last count, six different states had lodged a grand total of 77 objections to various NWPs. On 29 June 1984, the Corps appealed to the Secretary of Commerce under Section 307(c)(3)(A). We were alarmed. Although we brushed aside parochial concerns about cranking out 77 appellate decisions - with perhaps many more to follow -- we wondered how the Secretary would be able to make all of the findings required by 15 CFR Section 930.121, especially the finding that there is no reasonable alternative available to the "applicant." The objecting states' real problem was that they wanted case-by-case determinations by the Corps; at the very least, they wanted to see consistency certifications for each project carried out under most NWPS. Can the Secretary confidently conclude that case-by-case permitting -- or, at the very least, case-by-case certification by individuals wishing to act under the NWPs -- is not a reasonable alternative available? We know, however, that if we proceed under Section 307(c)(3) and if the Secretary denies the appeals from the Corps, the NWP Program would be dead in all of the objecting states. Conversely, we know that if the Secretary upholds the appeals and loses the litigation which would predictably ensue under part 930.121, the NWP Program would be equally dead. Finally, we know that if the Secretary refuses to entertain the appeals on the grounds that NWPs are not covered by Section 307(c)(3), then the Corps could proceed over a state's objection only if it could persuade the courts that other federal laws prevented it from doing otherwise.

In view of (i) the structure of the Clean Water Act, (ii) the concept of a general permit, (iii) the stringent regulatory standard in 15 CFR Section 930.32(a), and (iv) the Secretary's limited discretion under 15 CFR Section 930.121, there is no ideal solution.

LIVING MARINE RESOURCES

Even though fisheries management may not always constitute "environmental protection," I must mention three recent controversies arising from NOAA's role in managing and protecting fisheries.

The "Consistency" of Fishery Management Plans

At the beginning of President Reagan's first term, the Heritage Foundation, a conservative think-tank, published a widely-read report called "Mandate for Leadership: Policy Management in a Conservative Administration." Turning ever so briefly to NOAA, it said:

> Unfortunately, there are two significant omissions in the overall management of the fish stocks that hinder decisions. * * * The second omission is the lack of management responsibility for the three-mile territorial sea. The [Magnuson Act] only covers species principally caught outside three miles. Although species freely interact inshore and offshore, NOAA virtually ignores the inshore species, leaving that responsibility to the individual states. Unfortunately, many states do little research on marine species and some have management programs inconsistent with NOAA's [12].

I find this language ironic, since it constitutes part of a blueprint for a conservative Administration sympathetic to states' rights, but the jurisdictional seam described by the Heritage Foundation has been a source of abiding conflict between the states and the federal government since 1976. It is probably worth stating current black-letter law on the subject:

States have plenary jurisdiction to regulate marine fisheries in their internal waters and in their territorial seas [13]. The federal government, acting through NOAA, the National Marine Fisheries Service, and the regional fishery management councils established by Section 302 of the Magnuson Act, has plenary jurisdiction to regulate marine fisheries between 3 and 200 miles from the coast (and even further in the case of anadromous species like salmon). States may regulate fishing vessels registered under their laws no matter how far they roam [14], until preempted by federal regulation under the Magnuson Act [15]. As might be expected, the CZMA has introduced further complexities.

In the early days of the program, when the Commerce Department was anxious to approve state CZMPs, several states -- most notably, Florida -- had the foresight to incorporate by reference certain provisions of state laws governing marine fisheries in a three-mile territorial sea. By operation of law, then, those state statutes were "mandatory enforceable policies," with which federal activities would have to be "consistent to the maximum extent practicable" under Section 307(c)(1). Later, when the regional fishery management councils began to devise management measures for species important to Florida, like groupers and snappers, they faced a variation on the usual jurisdictional dispute between state and federal governments in the fisheries area. One provision of Florida law, for example, prohibited the use of purse seines to take food fish like mackerel [16]. The federal South Atlantic and Gulf Councils, however, decided for various reasons that a prohibition on the use of purse seines to take mackerel was neither necessary nor appropriate within the meaning of Section 303(a)(1) of the Magnuson Act, and that a simple quota for the purse-seiners would suffice. Florida complained. Its argument boiled down to the simplistic proposition that federal rules applicable between 3 and 200 miles seaward had to reflect the same prohibitions as state laws applicable only to state waters.

A moment's reflection should reveal the practical difficulties in implementing Florida's position, even if it were legally sound -- which it isn't. Any state, including Florida, is free to favor recreational over commercial interests when it regulates fisheries in state waters under its police powers. But by no means does it follow that, when the federal government acts under the Commerce Clause to regulate fishing in the exclusive economic zone, it must or should strike the same economic and political balance. Furthermore, fishery management plans (FMPs) under the Magnuson Act reflect an express congressional desire to manage particular stocks of fish throughout their migratory range. Must an FMP be "consistent to the maximum extent practicable" with each of several mutually exclusive state decisions? Presumably not. Less hypothetically, must a management decision of Florida's legislature be extended, via the combined effect of the Magnuson Act and the CZMA, to an oceanic area thousands of times greater than the state waters to which the state's decision applied originally? And, must Florida's decision override the collective decisions of the other states in the region, as reflected in decisions of the federal fishery management council concerning the exclusive economic zone?

I hope not. In any case, federal courts have thus far agreed with NOAA's position asserted against Florida's consistency objection [17]. I hasten to add that NOAA's argument in this controversy is limited: we argued that a prohibition on purse seines in the EEZ would contravene several of the national standards in Section 301 of the Magnuson Act and that we therefore met the stringent test of 15 CFR Section 930.32(a). But I wonder how the federal government would fare in similar litigation when it can't maintain that a state rule, if extended to the EEZ, would be contrary to Section 301 of the Magnuson Act, but is simply not considered "necessary and appropriate" within the meaning of Section 303(a)(1) of the Magnuson Act.

After all is said and done, after all the consistency objections have been litigated or otherwise put to rest, and after all state and federal enforcement actions between the beach and the 200-mile line have been resolved one way or another, I come back to the wisdom implicit in the Heritage Foundation's report: the essential problem here, as in so many other fishery management issues, is that fish will not respect dotted lines that Congress draws on maps.

"Superfund"

I now turn to an environmental dispute involving the coast and offshore waters that does not arise as a result of the peculiarities of Section 307 of the CZMA, but under Section 107 of the Comprehensive Environmental Reponse, Compensation and Liability Act of 1980 (CERCLA), better known as "Superfund" [18]. EPA's difficulties in implementing this complex statute are well known. Less visible are the peculiar problems of the agencies designated by Executive Order as trustees for the

purpose of claiming damages to and restoring the nation's natural resources: in NOAA's case, primarily marine resources [19].

In late Novemember of last year, the Justice Department pointed out that a statute of limitations on claims by natural resource trustees was arguably about to run with respect to polluting discharges that were known -- or should have been known -- prior to the effective date of CERCLA. After reviewing our case files, we discovered a potential claim for damage to the fishery resources, particularly shellfish and lobsters, on account of pollution of the Acushnet River and New Bedford Harbor from discharges of PCBs by several manufacturers of electrical components. On the last day before we thought the statute of limitations would run, I authorized the filing of NOAA's first complaint under Section 107 of CERCLA [20]. The Commonwealth of Massachusetts, which has an independent right of action under Section 107, filed its own similar lawsuit the next day. Shortly thereafter, EPA, which had also been been thinking about the New Bedford PCB problem, joined NOAA's action with its claim for clean-up costs under Section 104 of CERCLA [21].

We believe there were damages to natural resources for which NOAA has trusteeship responsibilities under CERCLA and the Executive Order that implements it. We know, for example, that areas of the Acushnet River estuary within Massachusetts' internal waters are closed under state law to all fishing for sedentary species. We know that areas of Buzzards Bay are closed to lobstering under state law. We know that if fishermen have respected the state's closures, they have incurred the costs of going farther afield in search of lobsters and shellfish. We also know that the FDA has recently reduced the tolerance level for PCBs from 5 parts per million to 2 ppm [22], and we know that the state has formally alerted pregnant women and nursing mothers to the dangers of eating fish contaminated by PCBs. Furthermore, we know that the Corps of Engineers has been unwilling or unable to permit the disposal of dredge spoils from the Acushnet River system and New Bedford Harbor, so some development projects may have been abandoned. Finally, we know that contamination of seafood may have affected adversely consumer acceptance, perhaps lowering the prices commanded by locally caught seafood.

There are, however, a couple of things that we don't know yet. For example the Interior Department was required by Section 301 of CERCLA to issue regulations governing the assessment of damage under Section 107, but has not done so. The corporate defendants have argued that the existence of damage assessment regulations under Section 107 is a prerequisite to a claim by a natural resource trustee [23]. In any event, NOAA's efforts to assess damages will be written on a clean slate, and the technical issues, both biological and economic, are of protean complexity. Equally fascinating is the relationship of a claim under Section 107 to a claim by EPA for clean-up costs under Section 104. Absent a classic fish kill, it may be that the measure of damages is little different from

the costs of returning the environment to the status quo ante, which, in turn, is little different from the costs of remedial action under Section 104. Besides, Massachusetts is also a plaintiff, and all of the closed areas at issue are in state waters. The defendants argue that this fact eliminates a federal trustee's claim under Section 107.

Some of my colleagues at NOAA have pointed out that the insidious effects of contamination of marine resources seldom present the classic profile of a fish kill, and that if any claim by a natural resource trustee can be made under Section 107 of CERCLA, then the New Bedford situation has got to be it. I accept the logic of that statement, but it scarcely resolves the many uncertainties in the pending litigation. With that cryptic thought, I will leave you dangling, lest I overstep the bounds of propriety under the ABA's Canons of Ethics.

Hydroelectric Power and Fish (Especially Salmon)

Before leaving the subject of living marine resources, I will refer to NOAA's central role in a series of running battles between salmon fishermen and proponents of hydroelectric power, particularly in the Pacific Northwest. Hydroelectric development is regulated by the Federal Energy Regulatory Commission (FERC) pursuant to the Federal Power Act, as amended [24]. FERC is properly interested in maximizing the contribution of hydroelectricity to the nation's energy balance. Doing so, however, may cost us a lot of salmon. Of current interest to NOAA, there are two points of impact between FERC's promotion of hydroelectric power and the travails of the long-suffering salmon stock originating in California, Oregon, and Washington. First, FERC licenses dams [25]. Second, it grants "exemptions" from the licensing process, including those for projects involving less than five megawatts of hydropower generated at existing dams and impoundments [26]. The general public is well aware that salmon -- being anadromous fish that swim up-river to spawn where they were born -- must somehow get around dams and other obstructions, and that fish ladders are the usual compromise between dams and the sexual appetite of salmon. Less well known, however, is the fact that impediments to downstream migration of baby salmon, called smolts, may destroy up to 90 percent of them in a low-flow year. In collaboration with the Interior Department's Fish and Wildlife Service (FWS) and the fishery agencies in the affected states, NOAA has spent much time and energy trying to ensure that hydroelectric facilities licensed, or exempted from licensing, by FERC accomplish the difficult task of getting smolts around hydro turbines.

I will not characterize FERC's performance, but will point out that the Marine Fisheries Advisory Committee, a federal advisory committee that advises NOAA on fisheries issues, passed a resolution on 6 June 1984 criticizing FERC for its perceived failure to pay enough attention to the health of salmon resources. Moreover, two FERC proceedings have prompted the Commerce Department to take the unusual step of appealing FERC's orders to the federal courts.

In Yakima Indian Nation, et al. v. FERC, et al. [27], the issue was whether a new 40-year license for the Rock Island Dam on the Columbia River could be issued without full consideration of the effect of the dam on salmon resources, and without mitigating that effect. In NOAA's view, FERC's response to the problem presented by a dam built during the Depression had been to defer consideration of the issue unreasonably. A cornerstone of FERC's legal response was a license provision allowing the imposition of additional terms and conditions on the dam operator, if subsequent study so indicated; FERC maintained it was studying the issue in consolidated administrative proceedings known as the Mid-Columbia proceedings.

The Secretary of Commerce and others appealed FERC's order in the Rock Island Dam case to the Ninth Circuit. The Secretary's position was upheld on all scores. We now know that FERC's decision on a license application under the Federal Power Act will require an environmental impact statement to assess the project's effect on the salmon resource, and that Schedule S of FERC's license application form (relating to impacts on fish and wildlife), must be completed before the licensing decision. In other words, we now know that FERC must consider the impact of its licensed projects on salmon before it issues a license.

None of this, of course, solves the problem. If salmon fishermen now have a leg up, legally speaking, FERC remains entitled and required to balance the needs of the salmon resource against other legitimate interests it must consider under the Federal Power Act. How the salmon resource will fare in the long run is anybody's guess.

In The Steamboaters, et. al., v. FERC, et al. [28], the Secretary of Commerce challenged a FERC order granting an exemption to the Winchester Dam on the North Umpqua River in Oregon. From the viewpoint of the dam owner, an exemption carries good news and bad news. The good news is that the relatively cumbersome licensing processes of the Federal Power Act, in which FERC must weigh the competing demands of salmon protection against the need for hydroelectric power, is inapplicable. The bad news is that an exemption is circumscribed by mandatory terms and conditions -- and, indeed, is difficult to distinguish from a license or permit. Not only that, but an exemption requires the applicant to comply with terms and conditions " ... appropriate to prevent loss of, or damage to, fish or wildlife resources ...," [29] a requirement deriving from FERC's obligation, before granting exemptions, to consult "the Fish and Wildlife Service and the state agency exercising administration [over] fish and wildlife resources of the state in the manner provided for by the Fish and Wildlife Coordination Act" [30].

The legal issue is whether exemptions under the Federal Power Act must contain the fisheries protection measures propounded by NMFS. When amended in 1965, the Fish and Wildlife Coordination Act [31] referred only to FWS and to the cognizant state fisheries agency. NOAA was created by Reorganization Plan No. 4 of 1970, which transferred to the Commerce Department much

of the authority and pesonnel of the Interior Department's Bureau of Commercial Fisheries and FWS, including those relating to salmon. A literal reading of the Federal Power Act, whose 1978 amendment reflected a 1965 organizational structure, might suggest that FERC must accept only those fisheries protection measures proposed by FWS and the state fisheries agency, notwithstanding NMFS's predominant role in the management and protection of salmon.

We prefer a more sophisticated approach. FERC's own exemption regulations expressly include NMFS as one of the agencies entitled to propound mandatory terms and conditions on exemptions [32]. The preamble to those regulations seemed to recognize the legal issue, and seemed to resolve it in favor of NOAA and the Commerce Department [33]. At the request of the applicant in the Winchester Dam case, however, FERC has now discovered that its references to NMFS in its exemption regulations arose solely out of administrative largesse, and that FWS is the sole federal agency entitled to insist that exemptions carry terms and conditions to protect salmon. FERC takes the position that it may "waive" terms and conditions advanced by NMFS [34].

I have merely summarized the legal contentions in the Winchester Dam case, and I cannot argue NOAA's case here. But I wish to state that FERC's order gave us little choice but to insist on the acceptance of NMFS' terms and conditions, and on their enforcement by FERC. If the Ninth Circuit resolves the narrow statutory question against us, of course, the federal agency primarily responsible for the management and protection of salmon would be unable to condition exemptions under the Federal Power Act to ensure there is no adverse impact on the salmon resource.

Marine Sanctuaries

Under Title III of the Marine Protection, Research and Sanctuaries Act (MPRSA), the Secretary of Commerce may, with the approval of the President, designate national marine sanctuaries, subject to approval by a concurrent resolution of both houses of Congress [35]. Two existing marine sanctuaries, at Key Largo and Looe Key, are contiguous to Florida waters [36]. For the most part, NOAA and Florida's Department of Natural Resources see eye to eye on protecting the unique coral reef ecology in the sanctuaries (perhaps because all the bureaucrats and political appointees at both state and federal levels seem to be scuba divers). At 12:05 a.m. on 4 August 1984, the M/V Wellwood, a freighter of Cypriot registry with a U.K. skipper, carrying a bulk cargo of animal feed from New Orleans to Portugal, went hard aground on a feature known as Molasses Reef, about six nautical miles from shore within the Key Largo Sanctuary. About 400 feet of the reef were demolished, and the sanctuary and shoreline were threatened with the possibility of a massive spill of diesel fuel. Acting pursuant to the Intervention Convention and the Intervention on the High Seas Act [37], the Coast Guard took unilateral action

after consultation with the Cyprus authorities as required by the Intervention Convention. It boarded the vessel and off-loaded the fuel to avert " ... grave and imminent dangers to the coastline or related interests ..." [38] of the United States. Meanwhile, private salvors under contract to the Coast Guard engaged in repeated attempts to dislodge the vessel from its perch on Molasses Reef. These efforts, unsuccessful until August 20, inflicted additional damage to the reef.

NOAA's regulations for the Key Largo Sanctuary make it unlawful to destroy coral and provide for substantial civil penalties [39]. Acting at NOAA's request, the Justice Department filed a lawsuit on August 10, seeking to collect the costs of the salvage operation incurred by the Coast Guard, damages to the reef (initially assessed at $20 million) under general principles of maritime law, and civil penalties assessed under the MPRSA in the amount of over $1,200,000, with the meter running for each continuing day of violation [40].

To file a lawsuit, however, is not to perfect jurisdiction, and the writ of the U.S. District Court in Miami extends no further seaward than three nautical miles on Florida's east coast. The stranded vessel was beyond the Court's jurisdiction, and the Coast Guard had physical custody of it only because it had invoked the coastal state's right of unilateral action under the Intervention Convention. The legal problem we confronted, of course, was how to perfect jurisdiction over the vessel, which was liable in rem for penalties under the MPRSA [41]. If the vessel entered U.S. waters voluntarily, or if it were towed there by the Coast Guard under the authority of the Intervention Convention, the problem would be solved. But a coastal state's powers under the Intervention Convention are, at least arguably, co-extensive with the "grave and imminent danger" justifying intervention in the first place. Once the danger of oil pollution was abated by off-loading the Wellwood's fuel tanks, it was arguable that the Coast Guard was required to stand aside; and, if the ship could proceed under tow or its own steam, to watch it sail into the sunrise.

In the interests of provoking harder law school exam questions, I should add that after the Coast Guard took custody of the vessel under the Intervention Convention, NMFS agents ascertained that members of the crew were fishing off the side. Fishing in the Exclusive Economic Zone by foreign vessels is generally prohibited under the Magnuson Act. Under the Magnuson Act, moreover, a vessel used in a violation is subject to forfeiture [42] and to seizure in the EEZ by federal authorities [43]. (In this regard, jurisdiction of the coastal state under customary international law, as reflected in the Law of the Sea Convention [44], gives the coastal state greater leverage when dealing with a fisheries violation than when it deals with a violation of a pollution control rule outside the territorial sea.)

As you might expect, the federal agencies traditionally solicitous of navigational freedoms were extremely concerned on two counts, even as the Wellwood rocked to and fro with the

tides on Molasses Reef. First, they were concerned about establishing a precedent for assessing civil penalties under a domestic environmental statute like the MPRSA on account of a navigational blunder occurring beyond the territorial sea. Second, they are concerned that political pressures would somehow cause the Coast Guard's on-scene commander to conclude that the "grave and imminent danger" from oil pollution survived the off-loading of the diesel fuel, and to tow the Wellwood into port for arrest in connection with the lawsuit filed on August 10.

As one who participated as an Alternate U.S. Representative to the Law of the Sea negotiations in the mid-seventies, I share a small measure of personal responsibility for the fact that the provisions of Part XII of the Law of the Sea Convention are extremely protective of navigational freedoms; it would be graceless of me to criticize those who fervently hoped, between August 4 and August 20, that the Wellwood would get off the reef and go away. But I can suggest some arguments for the proposition that continued U.S. assertion of jurisdiction over the Wellwood would not offend the navigational freedoms reflected in the Law of the Sea Convention.

In the first place, it seems that most of the policy underpinnings of the United States' interest in navigational freedoms stop when a foreign vessel goes aground near its coast; when the Coast Guard has custody of the vessel under the Intervention Convention, with the acquiesence of the flag state; when there are substantial damages to economic interests in the coastal state (in this case, the interest of those who run dive boats in the federal sanctuary and the adjoining Pennekamp State Park); and when damage is inflicted on a "creature of the shelf" under international law [45].

Thus, while a very strict regard for navigational freedom might be offended by the assessment of civil penalties under the MPRSA under such circumstances, I do not believe that the slogan "Freedom of Navigation!" is sufficient guidance for the federal government's response to such a maritime casualty.

Happily, the owners of the Wellwood agreed to have the vessel towed into Port Everglades for a structural survey, and the vessel was libeled pursuant to the action filed in the district court on August 10. It remains to be seen what defenses are pleaded to the United States' claim for civil penalties under Section 303 of the MPRSA and NOAA's regulations.

CONCLUSION

Most environmental issues are complicated enough, involving as they do a melange of chemical, biological, economic and philosophical arguments about the acceptability of risks. In the case of efforts to protect the coast and offshore waters, I think NOAA's experience illustrates that the normal complexity of environmental disputes is augmented by the competing demands of separate sovereigns. The national interest in energy independence may reasonably prompt federal agencies like the

Interior Department or FERC to promote OCS development or hydroelectric power, while the more localized interests of residents of Santa Barbara or salmon fishermen may favor environmental protection. Florida's economic interest in recreational fisheries may lead to disputes with a federal fisheries management apparatus having a much broader geographical scope and a very different set of statutory criteria to guide specific management measures. In the case of toxic waste disposal, a proper federal interest in minimizing over-all environmental risks may encounter legitimate fears of coastal state residents who do not want their coastal zone used as a staging area for the transshipment of wastes whose accidental discharge could destroy property values and perhaps threaten lives. In the case of the Clean Water Act, the federal permitting authorities' reasonable quest for efficiency may run afoul of state agencies' concerns about particular projects authorized under general permits. In the case of marine sanctuaries, the understandable desire of a coastal nation to protect unique environmental resources may run counter to the precepts of Hugo Grotius.

If there is a common thread to all of this, it is that the coexistence of equally legitimate concerns at different levels of government prevents facile solutions for most of the jurisdictional disputes I have mentioned. A corollary is that NOAA will continue to be involved as a referee in such disputes for the foreseeable future. The manager in me regrets this, since much of my staff's time must be spent on what may seem to be petty turf battles. The lawyer in me is not nearly so upset; jurisdictional disputes are among the costs of our federal system and of the current international order that jealously guards the the sovereignty of individual states. Many of those disputes are a great deal of fun.

NOTES

* The views expressed herein are those of the speaker, and do not necessarily reflect those of the Administration or any federal agency.

1. Administrator's Letter No. 37, November 24, 1982.
2. Under 15 CFR part 930.39, federal activities and permits need be consistent only with the "mandatory enforceable policies" set forth in CZMPs. See, however, American Petroleum Inst. v. Knecht, 456 F. Supp. 889 (D.C.D. Cal., 1978), aff'd, 609 F. 2d 1306 (9th Cir., 1979), for the proposition that many "mandatory enforceable policies" may not be specific enough to suit the private sector.
3. _____U.S._____, 104 S. Ct. 656 (Jan. 11, 1984).
4. 49 Fed. Reg. 22825 (June 1, 1984).
5. This had been tried before, in 1981, but the definition was withdrawn after concurrent resolutions were introduced in

both Houses of Congress to disapprove it under Section 12 of P.L. 94-370. See footnote 6 of the Court's opinion, 104 S. Ct. at 660, for a caustic account of NOAA's regulatory activities on this point (before I became General Counsel).

6. 31 August 1984.
7. Sec. 101, Marine Protection, Research, and Sanctuaries Act, 33 U.S.C. Section 1411.
8. See, R. McManus, "Ocean Dumping: Standards in Action" in Environmental Protection: The International Dimension (D. Kay and H. Jacobson, eds., 1983) 119, n. 46 at 138.
9. 40 CFR Section 222.3(d).
10. 33 U.S.C. Section 1344.
11. 47 Fed. Reg. 3183 (1982); 49 Fed. Reg. 12663 (1984).
12. C. Bradford, Id. at 70.
13. Alaska v. Artic Maid, 366 U.S. 199 (1961); see also, Section 306(a), MFCMA, 18 U.S.C. part 1856(a).
14. Anderson Seafoods, Inc. v. Graham, 529 F. Supp. 512 (D.N.D. Fla., 1982); People v. Weeren, 163 Cal. Rptr. 255, 607 P. 2d 1279 (Cal., 1980).
15. Southeastern Fisheries Assn. v. Livings, D.S.D. Fla., Civ. No. 83-524-CIV- SMA (1984).
16. Fla. Stats. part 337.08(3).
17. Florida v. Baldridge (I), D.N.D. Fla., Civ. No. 83-7071; Florida v. Baldridge (II), D.N.D. Fla., Civ. No. 83-7830WS.
18. 42 U.S.C. Section 9601 et seq.
19. E.O. 12316; National Oil and Hazardous Substances Contingency Plan, 47 Fed. Reg. 31180, 31219 (July 16, 1982).
20. United States v. AVX et al., D. Mass. No. 83-3882 - Mc (filed Dec. 9, 1983).
21. EPA's claim was not barred by the statute of limitations in Sec. 112(d), 42 U.S.C. Section 9612(d).
22. 49 Fed. Reg. 21514 (May 22, 1984).
23. But see, United States v. Reilly Tar & Chemical Corp., 546 F. Supp. 1100, 1119-20 (D. Minn., 1982).
24. 16 U.S.C. Section 791 et seq.
25. 16 U.S.C. Section 817.
26. Sec. 408(b), Energy Security Act of 1980, 16 U.S.C. Section 2705(d).
27. Civ. Nos. 82-7561, 82-7562, 83-7038 (9th Cir., June 7, 1984).
28. Civ. Nos. 83-7660, 83-7444, 83-7705 (9th Cir., 1984).
29. 18 CFR Section 4.106(b).
30. Sec. 213, Public Utility Regulatory Policies Act, 16 U.S.C. Section 823a(c).
31. 16 U.S.C. Section 661 et seq.
32. 18 CFR Section 4.102(c).
33. 45 Fed. Reg. 76115, 76120 (Nov. 18, 1980).
34. See, 18 CFR Section 4.103(d)(1). FERC has since moved to eliminate the reference to NMFS in its regulatory definition of "fish and wildlife agencies" at 18 CFR Section 4.102(c). 49 Fed. Reg. 8009 (Mar. 5, 1984).

35. 16 U.S.C. Section 1432.
36. See 15 CFR, Sections 929, 937.
37. International Convention Relating to Intervention on the High Seas In Cases of Oil Pollution Casualties (Brussels, 1969), 1 U.S.T. 765, T.I.A.S. 8068; 33 U.S.C. part 1471 et seq.
38. Intervention Convention, Art. I(1).
39. 15 CFR Sections 929.7(a)(1)(i), (6)(i), 929.9.
40. United States v. M/V Wellwood et al., D.S.D. Fla., Civ. No. 84-1888 (filed August 10, 1984).
41. 16 U.S.C. part 1433(c).
42. Sec. 310(a), 16 U.S.C. Section 1859(a).
43. Sec. 311(b)(1)(A)(iii), 16 U.S.C. Section 1861(b)(1)(A)(iii).
44. Art. 73.
45. Convention on the Continental Shelf (Geneva, 1958), Art. 2(4); Law of the Sea Convention (Caracas, 1983), Art. 77(4).

REGIONAL FISHERIES COUNCILS: WHAT HAVE THEY DONE AND HOW HAVE THEY WORKED?

James A. Crutchfield
Natural Resources Consultants
Seattle, Washington

INTRODUCTION

Eight years ago the Fisheries Conservation and Management Act (later renamed the Magnuson Fishery Conservation and Management Act) created a new regime of ocean fishery management in the United States. Congress also provided for an entirely new management entity, made up of eight regional fishery management councils, whose jurisdictions correspond roughly to the major fishing regions of the continental U.S., Alaska, and the American Pacific Islands. The Councils were charged with responsibility for development of management plans for the major fisheries carried on between the three-mile limit of state jurisdiction and the newly established 200-mile Fishery Conservation Zone. In effect, the Councils constituted the planning arm of a new United States program to manage -- actually or potentially -- all fisheries within its 200-mile zone regardless of whether they were carried on by American or foreign fishermen.

The forces that led to the extension of fishing jurisdiction by the United States and creation of the Councils cannot be elaborated in detail in this paper. Suffice it to say that the legislation was the product of a melange of conflicting pressures, with the fishing sector divided on its advisability, the processing sector mildly opposed or neutral, and with vigorous opposition from the Department of State, the Department of Defense, and three successive presidents. Despite these formidable obstacles, the United States, in the words of a former NOAA administrator, was remorselessly driven to the position that it should have occupied all the time: that of a coastal state with important fishery resources in need -- often urgent -- of unified management.

For those not familiar with the Councils, a brief word about their structure is in order. The directors of the state fishery agencies and the regional director of the National Marine Fishery Service for the region lying within Council jurisdiction are permanent voting members. Other voting members are appointed by the Secretary of Commerce from panels nominated by the state governors.

In addition, each Council has nonvoting members representing the Department of State, the Fish and Wildlife Service, the Regional Marine Fishery Commission with jurisdiction in the area, the Coast Guard, and -- in the case of the Pacific Council -- a representative of the State of Alaska.

The relatively small number of voting members (thirteen on the Pacific Fishery Management Council, for example) precludes representation of every major interest group -- a fortunate

thing, since representation of that type would be an almost certain guarantee of instant paralysis. Nevertheless, the last five years has seen a drift toward group representation -- e.g., sport fishermen, commercial fishermen, processing and marketing interests, and, in the case of the North Pacific Council, statutory representation of the states of Washington and Oregon.

The Councils are provided with what could only be described as minimal budget for a small professional and clerical staff and to cover the costs of meetings of the Council and its various advisory groups and to conduct public hearings as required. A small amount of money has been provided for so-called programmatic research, but most of the urgently needed short and longer term research has been provided by the National Marine Fisheries Service, the various states, and the academic community. This is in accordance with the original intention of the Act, but operating experience over the past six years suggests that some critical gaps in data needs cannot be met in timely fashion in this way.

The primary responsibility of the Councils is to formulate and maintain in current status fishery management plans for important fisheries within their jurisdiction (including any fishery for which requests for allocations have been received from foreign governments). The plans must satisfy national standards contained in the enabling legislation, and their preparation and submission are subject to rigorous review and public hearing requirements specified in the Act and in operating procedures. The end product of a fishery management plan is a determination of optimum yield (the yield which is presumed to provide the maximum social and economic benefit from the resource to citizens of the United States), the amount of that yield which the domestic fishing and processing industries are expected to utilize, and the amount which would then be available for allocation to foreign governments which have concluded Governing International Fishing Agreements (GIFA) with the United States.

The plans, subsequent modifications, and draft regulations submitted by the Councils are subject to review within the Department of Commerce and by the Secretary who, upon approval, issues the appropriate regulations to implement the plan. Commerce review tends to focus on whether national standards and proper procedures have been observed, but approval is by no means automatic. On many occasions, NMFS and NOAA review has gone to the heart of substantive issues, resulting in sometimes vigorous conflict with the Councils and, on more than one occasion, long delay in establishing a management regime for the fishery in question.

It goes without saying that performance of the councils has been uneven. Since my own experience has been limited to five years on the Pacific Fishery Management Council and intermittent contact in various ways with the North Pacific Council, the comments that follow are strongly influenced by the actions of those two bodies. I am simply not familiar enough with the track record of the other Councils to comment on specific

actions. I suspect that the record of the Pacific and North Pacific Councils has been above average, a feeling that is at least consistent with a recent (and quite inadequate) review by the Inspector General of the Department of Commerce. The analysis that follows must be read with that potential bias in mind.

CONSTRAINTS ON COUNCIL PERFORMANCE

The work of the Councils to date must be be approached with due regard to four constraints. First, the Council system, with its concept of regional management, was grafted onto a deeply embedded regime of state management, jealously guarded by the coastal states and supported by the entrenched interests of strong user groups. The influence of the states is still very strong, as evidenced by the statutory position of all state fishery directors on the Council, the nomination of public members by state governors, and the continued jurisdiction of the states over fisheries carried out "predominantly" within three miles. The Councils are still picking their way gingerly through the pitfalls of state sensitivities and the ill-defined jurisdictional boundary. More of this later. At this point, we merely note that the Councils must be keenly cognizant of state interests and of the pressures on state fishery agencies in formulation of plans and regulations in the three to 200-mile zone.

Second, it must be borne in mind that the Councils have only been true operating entities for about five years. The first year of their existence was largely organizational, and the second year was devoted to a feeling-out process to determine where the limited Council capabilities could best be focused. Given the premise, largely accepted by my friends in the fisheries community, that the gestation period for any good new idea in fishery management is not less than nine years, the five years of operating experience to date do not provide a definitive basis on which to judge the long-term usefulness of the regional council concept. Nevertheless, the Councils are, as befits any public agency, subject to widespread scrutiny and a very considerable amount of public criticism. An assessment is indicated, whether or not the time is appropriate.

Third, in all three west coast states, court-mandated allocations of fish to treaty Indian tribes must be met, and ocean harvest management plans must be tailored to guarantee that result. Uncertainty about the results of continuing negotiations and possible litigation constitutes a further constraint on Council planning.

Finally, the failure of efforts to negotiate treaties with Canada and Mexico for joint management of shared salmon and anchovy stocks has severely hampered development of effective U.S. planning for harvest of theses stocks. Canadian interceptions of Columbia River and Washington salmon are substantial and the magnitude of those catches is completely beyond the control of the Pacific Fishery Management Council (or

any other U.S. agency). The same is true of the anchovy stocks which are fished jointly by Mexican and U.S. nationals.

ISSUES AND ANSWERS: THE TRACK RECORD

This paper focuses on two questions. What substantive issues have developed in the first seven years of Council operation? How well has the Council mechanism functioned in meeting these challenges?

THE DEFINITION OF OPTIMUM YIELD (OY)

One issue popped to the forefront almost immediately: the definition and operational implementation of the concept of optimum yield -- the critical set of numbers in any fishery management plan. The Magnuson Act calls for a determination of maximum sustained physical yield of which the resource is capable, modified as required to allow for economic, social and ecological considerations. Unfortunately, there is nothing in the Act or its legislative history to suggest how these sometimes conflicting elements are to be weighted in determining optimum yield, and the whole concept rests on the shaky foundation of maximum sustained physical yield which is itself a much foggier notion than might appear at first glance [1].

As one might expect, the real meaning of optimum yield has only begun to emerge out of Council practice and legal testing. While there are significant differences in interpretation among the eight Councils, there seems to be general agreement on the following propositions.

1. Maximum sustained yield, in an operational sense, can only mean an average that takes into account wide annual variations is abundance and accessibility of fish in the constantly changing ocean setting.
2. The Council may wish to set OY well below this level if the stock in question has been seriously depleted and rebuilding is in order. Conversely, catches above the level of MSY might be perfectly appropriate in the initial phases of a new fishery on a previously unutilized stock.
3. Where possible, management concepts and regulations should be framed to promote rather than impede economic efficiency in use of the resources, hopefully providing some improvement in economic performance of a traditionally unstable and troubled industry.
4. The likelihood of local or regional impacts, coupled with the common occupational immobility of fishermen and the prevalence of close-knit cultural groups in the fishing community means that care must be exercised to avoid unnecessary social disruption. In effect, it may well be necessary in some instances to trade off economic well-being for the region as a whole and even to risk damage to the resource itself when the alternative is severe short-term dislocation of fishermen and related groups who simply have no other place to go.

All of these modifications are obviously "judgement calls," and are therefore subject to all kinds of political pressures. But this is true of all natural resource management issues. In some respects, the Magnuson Act and the subsequent work of the Councils have made explicit from the outset what developed only over a long period of time in the management of water, timberland, grazing land, and other publicly owned resources. While the protection of biological or physical productivity and efficient use of the resource in an overall sense remain dominant considerations, the complex relations between these resources and the people whose livelihood depends on them preclude any simple maximizing solutions, at least in the hard world of practical politics.

The mix of these elements of optimum yield varies so widely among individual fisheries that it has proved impossible, despite repeated efforts, to codify the concept. Instead, the Councils have been left to determine OY largely in their own fashion, subject only to the important requirement that any plan must include a statement of what elements went into the determination of OY and, implicitly, how they were weighted. If the technical competence and collective judgement of the Councils can be considered adequate, it seems more sensible to allow this range of latitude in determining OY than to undertake a rigid specification of the term which would inevitably turn out to be wrong in varying degrees for virtually every individual case.

DATA, DECISIONS AND DELAY: THE INFORMATION CRISIS

It is not clear that the authors of the Magnuson Act and its subsequent amendments really understood the nature of fisheries data or the time that must elapse between data acquisition, analysis, and evaluation. There continues to be a widespread impression in Congress and elsewhere that a fishery management plan is a "one-shot job," which, once in place, requires only the change of a few numbers from year to year. Nothing could be further from the truth. Virtually all exploited fisheries operate in complex, ever-changing marine ecosystems. A fishery management plan is at best a snapshot of the fishery situation over one short period of time, a framework within which detailed analysis and the generation of new target numbers must be undertaken every season in response to changes in resource availability, fishing technology, and domestic and international markets.

In short, the Councils, with the continuous support of the states and the National Marine Fisheries Service, must undertake approximately the same level of data collection and analysis each season, and though increasing use of the framework plan concept reduces some of the paperwork in modifying fishery management plans form year to year, the hard analytical work remains essentially unchanged.

It should also be stressed that fishery data are hard to come by, and their quality ranges, typically, from moderately

unsatisfactory to awful. This is not a criticism of fisheries science or of the data acquisition systems which have been developed to meet its requirements. It is inherent in the nature of living marine resources and the way they are harvested by commercial recreational users, and the resulting necessity to estimate, from scattered and often biased data sources, the critical parameters that determine the amounts that can be safely harvested from period to period.

The Councils have been hammered constantly with the charge that their actions are not based on facts and numbers which "prove" the correctness of their decisions. They aren't and never will be. Any fishery management agency must draw on the best data available, quantify the ranges of alternative outcomes that will result from different management actions (or from no action at all), and forecast as best it can the relationship between yesterday's observed data and tomorrow's performance in the ocean setting. It follows, as day follows night, that there will be arguments about what constitutes the best available data and that the Councils will be wrong from time to time in both interpretation of data and forecasts of future outcomes.

The nature of fisheries data also underlies one of the most vexing problems that has emerged from Council operation: the short time lag between Council actions and the actual implementation of the necessary regulations. As a case in point, information on salmon escapement in Pacific Coast rivers is never available until February or March at the earliest, simply because the runs are not complete and the data is not assembled until that time. Between March and May the plan development team must analyze all of the available information and convert it into options for Council consideration; the Council must determine which options are to be put out for public comment; and the Council, with the aid of its associated advisory groups, must then reach final decisions on recommended actions. Since the salmon season usually open in May, the regulations must be in place by that time. Thus nature and the requirements of the Act force the Council into the unpleasant dilemma of acting in a timely fashion on extremely sketchy information or waiting until available information is complete and then allowing little or no time for consideration of public reaction to the options that are developed. Year after year we have seen frantic last-minute revisions of the ocean salmon plan. Neither the public nor Council members themselves could study and respond to all these changes with the care that is called for.

Even after the final management plan is submitted by the Council to the appropriate reviewing agencies in the Department of Commerce, a series of waiting periods and review periods must ensue before final regulations are issued. At the present time the lag between completion of a fishery management plan (or a major modification thereof) by the Council and the actual issuance of the regulations is at least 140 days, and it can and does become much longer. In hard fact, this means that the Councils, except in emergency situations, cannot use last year's

data to support this year's management plan modification. In most cases the plans and subsequent modifications are based on data at least two or three years old. This simply will not do, particularly for fisheries based on pelagic and anadromous species, which are inherently subject to wide fluctuations in year to year abundance and accessibility.

There are plenty of agencies to share the blame for this awkward procedure. The Council's own actions are often drawn out over a longer period than necessary. The states are not always geared up to provide basic data as rapidly as they could, or they are simply underbudgeted and unable to do so. The review periods in the federal establishment are unnecessarily long and are often prolonged by repeated requests for additional information. In short, Congress must decide whether it wants the usual cumbersome process of public and internal review of all fishery management actions recommended by the Councils or timely and effective fishery management. It cannot have both.

Given these problems in obtaining information for year-to-year changes in management plans, it is hardly surprising that the Councils have seldom been able to make in-season adjustments to take account of new information as a fishing season develops. User groups are quite right in protesting that while the Council (or, more properly, the NMFS) can close down a fishery on very short notice in an emergency, there is no mechanism for an equally rapid increase in permitted catches if actual fishing experience indicates that previous estimates were too low.

THE COUNCILS, THE FEDS, AND THE STATE: WHO DOES WHAT?

The Councils are still feeling their way towards a satisfactory resolution of their position vis-a-vis the federal government and the states. In terms of management and budget, the Councils are very much the creature of the National Marine Fisheries Service, NOAA, and the Department of Commerce. The dependence goes far beyond mere funding. With some variation from region to region, all of the Councils are critically dependent on NMFS for various types of data and for analytical capacity to convert that data into timely management options for Council decision. NMFS also remains the principal source of funds for badly needed short-term research to support Council management plans. Council funding has always been low for these purposes and is now virtually at zero levels, and state fishery agencies, almost without exception, are equally strapped for research funds. The question of who does what for whom produces its shares of heartburn.

I hasten to point out that many of these potential sources of friction between the Councils and the parent federal agencies are only potential. I can speak from personal experience only with respect to the Pacific Fishery Management Council, which has enjoyed vigorous and effective support from both Northwest and Southwest regional offices and regional research centers of NMFS. Indeed, it is difficult to see how any of its three major management plans could have been developed or maintained without

that support. Moreover, the regional centers and regional offices have substantially modified their own activities in order to provide better and more timely data for Council use.

Whether this same degree of cooperation and support exists in other regions I cannot say, though I suspect that the relationship has been less satisfactory in some instances. It is at least possible that some NOAA and NMFS policy makers regard the Councils as a threat to their jurisdiction and might be inclined to use their budgetary control as a device to prevent further incursions of the regional management concept into federal turf. How strong this feeling is and how important it may be in budgetary, review, or staffing procedures I cannot say. It could become more of a problem in the future.

Relations between the Councils and the states have been touchy at times and on several occasions have degenerated into disputes requiring litigation.

Most of these disputes have arisen as a result of ambiguities in the definition of physical and jurisdictional boundaries in the Magnuson Act. The states retain full responsibility for fishery management inside three miles. As the Act is worded, a fishery is subject to state or Council jurisdiction depending on whether it is conducted "predominantly" within or outside three miles. In some cases, the fishery may be conducted predominantly within three miles during some seasons and predominantly outside in others. In practice, as might be expected, the application of common sense has dictated the division of formal responsibility between the states and the Councils in a noncontroversial manner. There remain however, serious problems as a result of the obvious need to align state management regulations with those of the Council where the latter has jurisdiction but where significant fishing activity is carried on in state waters, probably the most common situation.

Council-state disagreements can arise in at least four ways.

1. The states, with no exceptions that I am aware of, have nothing equivalent to "Optimum Yield" in their mandated objectives. To the extent that these are clearly articulated, they invariably hinge around some modification of "conservation" or maximum sustained yield. Consequently, it is not always easy to align state regulations with the Council's where the latter are justified in part by socioeconomic considerations. Most of the states have been able to find some "conservation" justification for Council measures and thus have been able to parallel Council actions without legal difficulty. But in future it is quite possible that a state may argue that it is unable to follow Council actions without violating its own legislative directives.
2. Honest differences of opinion may develop as to the appropriate levels of allowable catch. In at least one case, the State of Oregon opened its salmon fisheries

within three miles, at a time when Council waters were closed, on the basis of a legitimate disagreement among Oregon and Council advisors as to the availability of fish.

3. Council actions, even when clearly in the general interest of the region, may distribute costs and benefits unequally among the states. For example, establishment of a twenty-eight-inch minimum size limit for Chinook salmon is almost universally regarded by salmon biologists as a desirable step to avoid wasteful harvesting of immature fish by commercial trollers [2]. But this would have the effect of shifting part of an earlier harvest by California fishermen to a later harvest by Oregonians.
4. Differences in the strength, direction, and effectiveness of local political pressures can lead to particularly bitter controversies between states and Councils, particularly when some of the more zealous user groups undertake organized campaigns of misinformation.

REAL CONFLICT: THE PREEMPTION ISSUE

On the Pacific Coast all of these factors have been involved in a series of legal controversies between the Pacific Council and the states of Oregon and California. The Department of Commerce has actually invoked the preemption provisions in Section 306(b) of the Magnuson Act against both states [3]. The preemption issue came to a boiling point as a result of 1984 actions by the states of California and Oregon. The Department of Fish and Game of California and the Fish and Wildlife Commission of Oregon took strong exception to the severe restrictions placed on commercial and recreational salmon fishing by the Pacific Fishery Management Council in 1984. After two special meetings of the Council failed to produce any modification, California opened its inside waters for salmon fishing on 16 August 1984. Oregon followed suit the following day. At the request of the State of Washington, the Department of Commerce commenced administrative proceedings to regulate the salmon fishery in Oregon's coastal waters [4]. On September 14, the Administrative Law Judge recommended immediate preemption of the area until September 30.

The Oregon case is unique in several respects. First, the action was taken by the Commission over the strong objections of the Director of the Oregon Department of Fish and Wildlife and his technical staff. Second, the serious repercussions of a state action that would nullify enforcement of the Council's restraints on salmon fishing during a period of crisis conditions led the Department of Commerce to seek a stronger remedy. After October 10, the Judge will recommend whether or not to extend the preemption order indefinitely, or until the State of Oregon provides firm assurances that the situation will not recur. Extremely delicate legal issues cloud the central management concern: unless the preemption procedure can be used quickly it is of little use in protecting a time-sensitive fishery.

Clearly, the situation calls for some type of remedial action. If every state is free to use the shadowy border at three miles to negate Council actions whenever disagreements arise (or to cater to a vociferous local constituency), the very heart of the regional approach to fishery management is suborned. The states simply cannot dine a la carte at the regional table.

ALLOCATION: COMMERCIAL VERSUS RECREATIONAL USERS

The Pacific Fishery Management Council, together with several others, has faced severe difficulties in allocating scarce fishery resources to competing recreational and commercial users. During the early years of the Council the very term "allocation" was virtually forbidden -- at least until it became evident that any management measure (including inaction) inevitably affects allocations among competing user groups, and that the resulting controversies had to be faced directly.

The problem is complicated by the fact that the "products" of commercial fishing and recreational fishing are entirely different. The former is a commodity, priced in conventional fashion and capable of being evaluated in conventional economic terms. The "product" of recreational fishing, on the other hand, is the experience, rather than the fish catch per se. While catch success is unquestionably a factor determining the strength of the demand for recreational fishing, the actual unit of measurement is the value of a recreational day, not pounds or numbers of fish. Even the former, moreover, cannot be valued directly in the marketplace, since the right to fish in salt water is free in many states and is subject to only nominal license fees in others. The economic value of recreational fishing must therefore be approximated using a variety of techniques that are expensive, rapidly outdated, and subject to wide error.

During the first years of the Pacific Fishery Management Council's operation, much of its efforts in developing and amending an ocean salmon management plan was devoted to resolving wrangles among competing user groups, with the recreational-commercial issue occupying a disproportionately large part of its time. In 1983 a remarkably simple and workable solution emerged independently in both Oregon and Washington. With the urging of the fishery directors of the two states, recreational and commercial ocean salmon fishermen worked out agreements, based on historical records of the percentage of ocean catch taken by each group during low and high years, which provided acceptable "sliding scale" divisions based on pre-season forecasts of abundance.

As any economist will agree, there is nothing in science, economics, or the theory of management that will tell us whether one division of an available catch among competing users is better or worse than another. It can be argued, where data are available, that maximizing the total net economic contribution

from the resource is at least an initial goal, but it could hardly be regarded as totally adequate. The salmon management plan provides an excellent example of how the opportunity and incentive for competing user groups to work out their own distribution techniques can be utilized effectively. Provided they do not result in grossly inefficient management, there is every reason for the Councils to accept them and incorporate them in fishery management plans. Whatever the bases for settlement, all the Councils must find answers to the recreational-commercial allocation issue. It can only become more important in the future.

CONTROL OF FISHING EFFORT

In one important arena, the Councils have failed signally to achieve what might have been expected of them: a regional approach to the critical and ubiquitous common property problem. In the face of widespread opposition from the fishing community and, in many cases, from state fishery agencies, the Councils have not been able to control fishing effort on stressed stocks in a manner that would apply uniformly throughout the region. Some Councils have simply ignored the problem entirely. Others have exerted moderate pressure on the states to develop their own limited entry programs within broad guidelines laid down by the Council, a procedure followed by the Pacific Fishery Management Council. Unfortunately, even that limited effort has not extended to all fisheries; on the Pacific Coast the grossly over-capitalized groundfish trawl fleet is still wide open, despite growing evidence of serious resource depletion in some of the major target species. Of the three state programs to limit salmon fishing effort, only the California plan (developed and vigorously promoted by the industry itself) is really effective. Oregon and Washington have imposed moratoria on new licenses, and the latter has mounted a limited effort to buy back redundant licenses and gear. The Council itself has done virtually nothing.

In fairness to the Councils, it should be pointed out that achieving an integrated regional program to bring fishing effort in line with the yield capacity of the resources available is an enormously difficult task. The Councils must operate within the constraint imposed by the concept of OY as defined in the Act and as modified by developing experience in formulating existing plans. As indicated above, none of the states have a mandated objective that remotely resembles OY; most of them specify, with greater or lesser degrees of precision, some variant of maximum sustained yield as the objective of fishery management, often with vague references to economic and social factors.

With a few notable exceptions, the fishing industry has adamantly resisted any form of limited entry beyond a simple moratorium on the issuance of new licenses. In many cases, then, any state action to limit entry to overcapitalized fisheries requires additional legislation in the face of organized opposition from one or more segments of the fishing industry.

PUBLIC INPUT: WHO TALKS AND WHO LISTENS?

I must rise strongly to the Councils' defense in one area in which they have been criticized most bitterly. There is a constant refrain that the Council does not listen to fishermen's presentations and that the Councils' decisions are made in a vacuum without benefit of public input. Nothing could be farther from the truth. Council meetings, including those of the Scientific and Statistical Committee, Plan Development Teams, and the Advisory Panels are open to the public and are usually well attended. Provision is made for public comment at every Council meeting and -- at least in the case of Pacific Fishery Management Council -- for public input on every substantive issue that is brought to a vote before the Council. The Advisory Panels are broadly representative of all major interest groups, and it could hardly be argued that their reports to the Council constitute a rubber stamp. Public hearings are held on all plans and proposed plan amendments.

There must always be a distinction between the willingness to listen to all sides of an issue and the willingness to accede to anything that a particular claimant groups wants. It might be noted, parenthetically, that this applies to individual states as well as to individual fishing interest groups.

Admittedly, it was not always so. Both the Councils and the user groups with which they deal have made honest and, in my opinion, successful efforts to bridge the communication gaps that existed when the Act was first implemented. The Councils have made a much more extensive effort to get information to affected user groups on time and in adequate detail (at least as timely as the information provided to the Council members themselves, which still leaves much to be desired). Many individual Council members have made a special point of making themselves available to fishermen's groups to discuss Council alternatives in a quieter arena that an open Council meeting. User groups, on the other hand, have become much more factual and less shrill in their presentations before the Council, and, as a result, their influence on actual policy formation has clearly increased.

There are exceptions, of course. Breakdowns in communication have occurred from time to time, and in a few instances serious inequities may have resulted. It is hard to dodge the fact, however, that any fishery management entity must, by its very nature, stand in an adversary relation to resource users. Since every action taken by a Council, including inaction, has allocation implications, there are bound to be winners and losers (or at least differences in relative benefits or costs) to different groups. It is the responsibility of the Council to identify these impacts wherever possible, but it cannot guarantee total equality of treatment for everyone on every issue.

The Magnuson Act, as amended, also has a strong developmental tone. It proposes to accelerate, wherever possible, the substitution of American for foreign exploitation of fishery resources within the 200-mile zone, and the development of American effort on underutilized species. To some extent, this emphasis on development appears to rest on a misconception about the degree of utilization of stocks in the U.S. fishery conservation zone. There is very little underutilization by U.S. and foreign fishermen combined of the commercially usable stocks in that zone. Even in the case of Alaska, where most of the remaining underutilized stocks are to be found, this "development" really means the substitution of U.S. for foreign effort. Note that this is no small matter, however. Even within the structures of the Magnuson Act, foreign fishermen are still taking over one million metric tons of fish from the U.S. FCZ -- almost one-third of landings by all U.S. fishermen.

Much progress has been made in supplanting foreign with U.S. harvest. The only directed foreign fisheries of any consequence are those for Pacific whiting (off the states of Washington, Oregon and California), the much larger groundfish operations in the Gulf of Alaska and the Bering Sea, and the squid fishery off New England. It is not clear, however, that the Councils as such have played a particularly significant role in this transfer -- most of it can be attributed to the provisions of the Act itself. In fact, the Councils have been moderately obstructive when dealing with the one mechanism that has accounted for most of the change -- the joint venture.

In 1984, joint ventures (most of them simply over-the-side purchase agreements in which foreign processing vessels contract to accept fish from American fishing vessels) will account for over 500 thousand metric tons of fish taken within the U.S. FCZ -- roughly 25 percent of the entire U.S. landings. This figure is expected to reach three-quarters of a million to a million tons within the next few years, provided it is not crippled by legislative action [5].

The reasons for this explosive growth are rooted in real economic savings. Joint venture vessels deliver fish at sea immediately upon capture, eliminating any onboard handling, and are therefore able to stay at sea long, operate without ice or refrigeration gear, and maintain a high rate of capture per day away from port. The operation does not require special handling of waste materials since the open sea is readily available and the receiving processor has access to markets that might well be unavailable to American producers. Perhaps most important, the very short time between capture and processing results in much better product quality.

As might be expected, American processors have not been enchanted with the growth of joint ventures, arguing that they act as an impediment to the growth of American processing and marketing capacity. Until such time as the capacity to purchase

and sell an equivalent amount is demonstrated, however, the joint ventures are adding some $50 million annually to the incomes of American fishermen and provide them with an opportunity to develop the capacity to operate efficiently, under difficult weather conditions, in a new mode of fishing.

The position of the Councils has been ambivalent. At first, they tended to oppose joint ventures vigorously on the grounds that they represented, in some obscure fashion, a threat to U.S. fishermen as well as to processors. However, the absence of any significant development of American shorebased processing capacity, the pressure of widespread excess capacity in the fisheries of both the west coast states and Alaska, and the real economic advantages of the joint venture haved changed the situation. At present, both west coast Councils vigorously support the joint venture concept though both regard it, appropriately, as a stepping stone toward substitution of American processing and marketing capacity as well.

The greatest threat to continued substitution of U.S. for foreign fishing effort in the FCZ is the pressure to build protective fences around traditional fisheries. The only opportunity for really large growth in U.S. fishing lies in the North Pacific groundfish operation -- primarily the province of trawl gear. Since some incidental catch of other species (some of which are already fully utilized) is inevitable in large scale trawling, the North Pacific and Pacific Councils have been besieged by proposals to impose various types of restrictions to protect established salmon, crab, halibut, and local groundfish producers. Fortunately, there is much that can be done to minimize undesirable bycatches at little cost, and the Councils have been examining these alternatives carefully. The danger lies in the marginal economic stature of the Northwest trawl fleet and the distinct possibility that unnecessary restrictions could halt further expansion.

THE BOX SCORE

In summary, the Councils have met some of the challenges posed by the Act and subsequent developments. Foreign fishing has been curtailed about as rapidly as U.S. expansion capabilities called for, and is being redirected to underutilized species and joint ventures. Nineteen fishery management plans, covering most important resources in the FCZ, are now in place. Others have been analyzed and rejected as unnecessary or delegated back to the states. While the planning process is not as complete or of as high quality as might have been hoped, the plans can and will be strengthened in time. Large gaps in the data base remain, but the scientific basis for fisheries management has shown marked improvement. Finally, the Councils have provided a useful forum for all the diverse interests concerned with coastal fisheries to air their concerns and get on with the job.

On the negative side, the failure of the Councils to make any real progress in dealing with the common property problem on

a regional basis is depressing. Despite the fact that curtailment of foreign fishing and the growth of joint ventures have added to employment and the number of vessels active in the American fisheries, there are serious questions as to the net economic benefits actually achieved. Since the Council system as a whole has been unable to come to grips with the common property problem, each new opportunity opened up for American fishermen by curtailment of foreign activity has been followed by an influx of new vessels or a shift in effort from heavily-stressed domestic fisheries.

There is some evidence that while there are more American fishermen and fishing vessels than prior to the enactment of the Magnuson Act, their real economic income is probably no better than it was before [6]. Until some effective way of matching fishing capacity to the yield capacity of the basic resources can be achieved under the Council system or through some other combination of actions, this melancholy situation is likely to persist.

The performance of the Councils with respect to public input, adherence to good operating procedures, and timeliness of actions is mixed, as one would expect.

There is a good deal of merit in the position of fishermen's groups that the Councils have not done as much as they could in fighting for habitat protection, particularly for salmon. The Pacific Fishery Management Council members can hardly be expected to take on the federal water agencies, the irrigation lobby, or the forest products industry -- the principal despoilers of salmon environments. But there is no reason why the Council cannot go on public record as a fishery management entity when important habitat issues are debated.

In evaluating the performance of the Councils it is not particularly useful to judge the regional management concept against standards of perfection. The practical issue is whether better performance could be expected by returning control to the states or by establishing full federal control over coastal fishery management.

The sorry record of efforts to deal with transboundary stocks under state jurisdiction prior to the Magnuson Act provides no measure of comfort in a return to that system. On the other hand, complete federal control over fishery management would involve a major break with American political tradition and would raise issues on which coastal emotions still run very high. It was, after all, only a short time ago that the issue of Alaskan statehood hinged largely on federal versus local control of fishery matters. Perhaps more important, federalization of the management function for coastal fisheries would require a massive transfer of facilities and personnel. The federal fisheries service is not a management agency and would have to be radically restructured if it were to assume full responsibility for management within the FCZ. While this is perhaps of less concern in some parts of the country where NMFS is already performing many of the necessary functions, it would represent a gross waste of the excellent scientific and

management capacity of many states, including all of those on the Pacific Coast. Finally, and most compelling, politics is politics, and it just isn't going to happen!

For better or worse, then, we are left with the regional council concept as perhaps the best alternative approach to marine fishery management, given the pluralistic structure of the American political system. The time is ripe for a searching review of the each Council of the appropriateness of its long-term goals and implementing objectives, its internal structure, and its method of operation. An exercise of this type is now going on in both the North Pacific and Pacific Councils, with participation by Council members, Council staff, and all major user groups. It seems reasonable to expect that a good deal of progress can be expected from these efforts and that broader public scrutiny of the results could lead to further improvement.

NOTES

1. For an excellent discussion of the dubious validity of MSY as an operational guide to fishery management, see P. Larkin, "A Confidential Memorandum on Fisheries Science," pp. 189-197 In Brian J. Rothschild (ed.) World Fisheries Policy, University of Washington Press, Seattle, Washington, 1972.
2. I.e., increments to weight will exceed decrements from natural mortality if the fish are allowed one more year of growth.
3. This provision permits the Secretary of Commerce to preempt state management authority within three miles upon finding that state actions threaten to nullify Department of Commerce regulations (based on Council plans) outside three miles.
4. For unspecified reasons, no similar action was taken against the State of California.
5. Data supplied by Natural Resources Consultants, Seattle, Washington.
6. Cf. S. Crutchfield and John Gates, "The Economic Impact of Extended Jurisdiction on the New England Otter Trawl Fleet," Workshop on Marine Resource Conflicts, University of Rhode Island, April, 1984 (unpublished). Also, V. Norton, M. Miller and E. Kenney, "Indexing the Economic Health of the U.S. Fishing Industry's Harvesting Sector," Seminar on U.S. Fisheries Utilization and Management, Center for Oceans Law and Policy, University of Virginia, Cancun, Mexico, January, 1984 (unpublished).

COMMENTARY

Jan Schneider
Attorney
Washington, D.C.

This panel this morning, as you have undoubtedly noted, had an exceptionally expansive topic: "An Evaluation of the U.S. Federal-State Experience in the Management of Marine and Coastal Resources." Under this rubric, we have heard two excellent but really very divergent sets of presentations. As a result, I am, it must be admitted, somewhat mystified as to how to approach the traditional task of a commentator of gleaning significant trends, salient differences, and unresolved questions in the presentations of all the speakers. I shall nevertheless very briefly attempt to assess the implications of: on the one hand, the federal-state dispute over title to, or soveignty or control over, the continental shelf, as discussed by Messrs. Claiborne and Briscoe; and on the other hand, the subsequent management of coastal zones or the exclusive economic zone, dealt with in the McManus and Crutchfield papers. Not being a specialist in either of these areas, perhaps I can help identify some of the main problems. In order to do that, I suppose it will be necessary to review very briefly the central points of the presentations just completed.

Mr. Claiborne, the loyal Deputy Solicitor General, began with the basic political issue of "who gets what". Having noted the "extraordinary inclination" in this country to settle such matters judicially, he has meticulously traced for us the history of federal-state disputes over continental shelf resources. He went from early days, through United States v. California in 1947, through the Gulf State cases, through the East Coast struggle in the United States v. Maine. But this history is really largely over and done with -- except for some minor skirmishes over historical inland waters, straight baselines, putative high seas enclaves, and the like. From the entire chronicle as set forth by Mr. Claiborne, one general rule emerged, namely: when the United States federal government and the states go to the Supreme Court over issues of continental shelf ownership or control, in the name of "paramount rights" or "sovereignty" or the "principle of equality" or whatever, the federal government wins.

Mr. Briscoe, our great advocate of states rights -- coastal states' rights this time with a small "s" -- did not really disagree with Mr. Claiborne, as a matter of real estate law. He simply did not like the results; and he felt that had the timing and circumstances of the cases chanced to be different, they might have produced different results.

The United States Congress apparently shared something of Mr. Briscoe's leanings or, in any event, was not overwhelmingly persuaded by the Supreme Court's reasoning on national paramountcy, since in 1953 it chose to alter the judicial

results on political grounds. Mr. Claiborne characterized the Submerged Lands Act of 1953 as "for the most part a straightforward cession of federal rights to the resources underlying the marginal sea," and so it would seem. Two states, Texas and Florida, have managed to wrest just a bit more, nine nautical miles instead of three, from Congress and the courts.

What, unfortunately, I think we did not hear much about in these presentations is a review of the efficacy or effectiveness or federal regulation and management of continental shelf resources once it has been established. Mr. McManus did some of this; he talked about the regulation, but not much about the results. As an environmentalist, for example, I find disturbing that it was not until after 1969, after the Santa Barbara oil spill, that we really got any federal environmental safeguards in the form of the amendments to the Outer Continental Shelf Lands Act.

After Mr. Briscoe's presentation we jump to Mr. McManus' most interesting ruminations on what are essentially the tensions between federal and state interests and priorities with regard to coastal zone management. He has pointed out, and so did Professor Crutchfield, that United States coastal states are deemed to have jurisdiction over living resources in the marginal sea just as over the continental shelf, and again the feds take over only beyond three miles. While it might have made political sense to Congress to allow coastal states to have the revenues of offshore leasing out to three miles, while all states of the Union share the revenues from the Outer Continental Shelf leasing beyond the three-mile area, does this really make any sense with regard to living resources -- that is, from the perspective of the fish?

What I would like to ask Mr. McManus, both as a legislative and a logical matter, where did we get this order of things as to living resources -- what is its statutory origin? I know that the most common citation is the one that he gave, Section 306 of the Magnuson Fishery Conservation and Management Act. Professor Crutchfield's paper also mentions this section when he says that, "[t]he states retain full responsibility for fisheries management inside three miles under this provision." But neither there nor in several thousand pages of legislative history of the Magnuson Act, which it was once my questionable pleasure to plow through, does there seem to be a clear indication of where coastal states got this jurisdiction they "retain," let alone the reasons why.

If the United States Supreme Court has held, as it did in the California continental shelf case and the other continental shelf cases, that the marginal sea appertains to the federal government by virtue of sovereign prerogatives or national paramountcy and so forth; and if it took, as it did, a <u>special cession</u> in the Submerged Lands Act to grant coastal states rights in this regard, then how could they have acquired rights to living resources by virtue of some rather loose language in the Magnuson Act?

Perhaps more importantly, why should coastal states' rights and responsibilities with regard to living resources necessarily be co-extensive with their continental shelf jurisdiction? What is the missing link?

Professor Crutchfield suggested a management reason in the form of built-up capacities for this, but as he himself remarked, fish do not really seem too adept at comprehending jurisdictional fine points. They do not respect the three-mile limit or even lateral state lines. In fact, a National Marine Fisheries Service Report on the implementation of the Magnuson Act reports that:

> Approximately 90 percent of marine fisheries resources off U.S. coasts are interjurisdictional; that is, they migrate through, or transcend, multiple jurisdictions -- between State lines, between State territorial waters and the FCZ [Fisheries Conservation Zone], or between U.S. territorial waters and those of another country. Most of the fisheries being managed under the Magnuson Act interjurisdictional.

As Professor Crutchfield has explained, management of the living resources in the U.S. 200-mile zone has consequently given rise to a whole new level of management apparatus: Regional Fishery Management Councils. Now why make the problem worse by fixing a three-mile fisheries line between coastal state management and the purview of the regional councils?

Off Alaska, for example, disputes over both living and non-living resources have not been only bilateral, but trilateral. Alaskan natives have laid claim to coastal resources on the basis of aboriginal title and sovereignty by virtue of use and occupation of the sea ice. While the matter has been held to have been settled within three miles by the Alaskan Natives Claims Settlements Act, Inupiat claims to the area between three and 200 miles are still pending in federal courts -- another jurisdictional curiosity.

Then, too, other countries with Arctic territorial claims are involved. When the United States Department of the Interior declared in the U.S. Federal Register its jurisdiction over the continental shelf and seabed to the limits of exploitability with regard to polymetallic sulfides in the Juan de Fuca and Gorda Ridge areas about a year or so ago, Canada protested in a diplomatic note that was subsequently published in the U.S. Congressional Record. It seemed that, as was discussed here yesterday, of the two known deposits of polymetallic sulfides in the Juan de Fuca area, one is outside 200 miles and the other is claimed to be clearly within Canadian waters wherever the boundary may go. Therefore, Canada wondered in the note what could be claimed as the legal predicate for the Interior Department's action under international law and/or under United States law.

In conclusion, very quickly to return to the standard role of the commentator, what implications can be gleaned from the

two sets of papers from this panel for "the developing order of the oceans," the broad international focus of this Law of the Sea Institute Annual Conference? The questions arising in the federal-state boundary disputes that Mr. Claiborne and Mr. Briscoe have shown us do not seem so different from those arising in international delimitations. For example, what weight is to be given to past conduct, to factors of environmental management, to principles of equality, and so forth? Nor does the coastal management issues seem unique to this country. Do international continental shelf boundaries necessarily have to be the same as fisheries zone boundaries, and why? Are the legal bases for determining the two necessarily the same? As we know, they are not with respect to outer limits.

COMMENTARY

George H. Hauck
Professor of Law
University of Puget Sound

The Claiborne/Briscoe papers seem like a modern-day Battle of the Books. However, it is clear that John Selden has won a belated victory over Grotius -- the battle is not whether the sea floor is free, but rather who gets it upon its capture.

Mr. Briscoe believes that the United States government takes its conservative delimitation position on baselines out of greed, and that the Supreme Court is unduly deferential where foreign relations concerns are greedily asserted (by Mr. Claiborne) as justification for a government legal position. His proposition is that division of the continental shelf between the feds and the states is of no international significance. This may be true, depending upon how the division is achieved. To the extent it is achieved by building upon a definition of the baseline, international legal concerns arise.

Baselines present more than just domestic legal questions. As noted in the the ICJ's Anglo-Norwegian Fisheries Case in 1951, baselines always have an international aspect: although only the coastal state has competence to draw them, their international validity is a question of international law. It is easy to imagine that the international validity and vindication of state state baseline claims could pose difficult foreign relations problems (not least legal ones) for the U.S., however persuasive their domestic (e.g., historical) justification.

It may well be, also, that the answer to the otherwise unexplained reluctance of the U.S. to employ straight baselines lies here -- not, or not only -- in suspect motives but in a desire to avoid becoming a precedent for even mildly expansive delimitations by other nations, especially where military navigation might be hindered.

Further evidence of federal greed is found in the 1983 EEZ Proclamation, said by Mr. Briscoe to be an expansive claim in advance of customary law, citing the North Sea Continental Shelf Cases 1969 for the proposition that the equidistance principle of the 1958 Continental Shelf Convention had not, even by 1969, become part of customary law. But time, as that case also noted, is not the only criterion. Sufficient state practice under claims of legal right or duty, even though occurring rapidly, is the principal criterion of the existence of a customary rule. Indeed, only five years later, the ICJ found in the Fisheries Jurisdiction Case that a 12-mile exclusive fisheries zone had come into being in this way since 1958. The 1969 cases also noted the possibility of "crystallization" of customary law by its inclusion in a Convention -- an amalgam of prior claims and practice and the Convention negotiation process here serve as evidence that the rule as stated in the Convention

entered into the body of customary law when enunciated and exists outside the Convention.

An argument can be made that crystallization took place when the 1982 Convention text announced the EEZ. With origins as far back as 1946, the EEZ by 1976 was said by the Norwegian government to have already been established by state practice and support in the UNCLOS, and to exist outside the future Convention [1]. By 1980, 95 countries made 200-mile jurisdictional claims, of which 49 were full EEZ claims [2]. By 1982 some 56 states made such claims [3]. Although apparently consciously modeled on the 1945 Truman Proclamation, the 1983 Reagan EEZ Proclamation can be argued not to be trend-setting, but after the fact.

If state and federal dissatisfaction still remains as to division of the spoils, it is perhaps worth noting that state/federal boundary conflicts need not be resolved using only domestic solutions. There is a history and literature of similar problems in other federal states (Canada and Australia, for example), and within the EEC, which can be looked to as possible models for solutions. Not least of these is the Australian choice to avoid constitutional questions and to negotiate and legislate, rather than litigate. This is, of course, completely un-American.

NOTES

1. D.P. O'Connell, The International Law of the Sea 570 (1982).
2. Id. at 570-71.
3. 44 (5) Marine Fisheries Review 30 (1982) (Source: Office of the Geographer of the U.S. Department of State).

In the regulatory context, Alaska (unlike some of the other coastal states) has been able to reach accommodation with the federal government. Alaska is one of the few states which has never filed suit against the federal government under the Coastal Zone Management Act in an effort to prevent federal offshore oil and gas leasing. While we were disappointed by the decision in Secretary of the Interior v. California discussed by Mr. McManus, we hope that it will not change the federal government's willingness to work toward accommodation and agreement of both state and national interests in this area.

These examples of areas in which Alaska and the federal government have reached agreement demonstrate that such solutions are much more satisfying to all parties concerned than allowing the courts to make such decisions. First, both parties' interests are served rather than, as some judicial decisions have shown, neither party getting a result with which it is comfortable. Perhaps more important, as in the international context, the interrelationship between local and more collective interests is a continuing and ongoing one. As a result, agreement at one point in the relationship tends to foster subsequent agreement while, as other states have learned, confrontation in one area seems to make agreement in other areas all the more difficult.

Because of the ongoing nature of these concerns, there is no truly final solution to any natural resources question. Changes of position by both local and more collective interests should be anticipated -- indeed expected -- with changes in technology and as new opportunities occur. Finally, our experience demonstrates that, as has been aptly stated, "no man is an island alone unto himself." Similarly, no state and no nation is an island. We are all part of of a larger body politic and need to recognize that fact.

Moving from substantive comments to a few points of personal privilege, I must confess that I cannot resist the opportunity to address a few of the remarks made by my good friends, Mr. Claiborne and Mr. Briscoe. Mr. Briscoe points out the unkindest cut of all. In the complaint the United States filed against the State of Alaska, drafted by Mr. Claiborne, the following statement appears:

> By its conduct and claims, the State of Alaska casts uncertainty on the position of the United States as to the location of its territorial seas and threatens to embarrass the United States in the conduct of foreign affairs and thereby cause great and irreparable injury to the United States.

I suggest that, perhaps, the opposite is true.

First, with respect to Alaska's claims, a few facts should be pointed out. Alaska's submerged lands total approximately 25,000 square miles. Following President Reagan's 1983 Proclamation with respect to a 200-mile exclusive economic zone, the United States claims jurisdiction to more than 1,000,000

square miles off the coast of Alaska. Of that total, the area claimed by both Alaska and the Federal Government totals something less than 100 square miles. It is difficult to imagine that our 100-square mile claim embarrasses the United States. At the same time, it must be remembered that the United States unilaterally extended its seaward jurisdiction to the limits of the outer continental shelf in the 1945 Truman Proclamation and recently increased its claims by adoption of the 200-mile exclusive economic zone while rather stridently rejecting the deep seabed mining provisions of the Law of the Sea Convention. The United States stands virtually alone with respect to delimitation of the territorial sea in that it does not employ straight baselines for marking the seaward limit of inland waters as authorized under Article Four of the 1958 Convention on the Territorial Sea and Contiguous Zone. I submit that Alaska's domestic claims here threaten no embarrassment to the United States, although the United States' position -- both internationally and in our domestic litigation -- may very well be embarrassing to some states.

Some of my fellow Alaskans might be tempted to equate the state's position in the Submerged Lands Act litigation with that of the Group of 77, arguing that the position of the United States executive is motivated solely by economic concerns and a goal of obtaining resource benefits at the expense of everyone else. I think such a characterization, at least in the international context, would be improper. The United States' position in the Law of the Sea context is based on what I would characterize as more legitimate concerns. However, the foregoing quote from the complaint in the current Alaska case and some of the remarks made by spokesmen for the Administration at this Conference show a disturbing similarity, and that is the tendency to allow rhetorical excuses to overshadow legitimate concerns. Such rhetorical extremes tend to harden the parties' positions and foreclose the opportunity for meaningful dialogue leading to negotiated settlement and agreement. Perhaps only time can heal the current division between the United States and other countries in the law of the sea context, but inflammatory rhetoric certainly will increase the time necessary for such healing if it does not preclude it altogether.

Mr. Claiborne graciously acknowledged the changes in the United States' position in the Submerged Lands Act litigation. This points out one of the difficulties the states have in this litigation, and that is ascertaining the "official" position of the United States at any particular point in time. At every turn, it seems, the Federal Government's position changes somewhat, and always to the detriment of the states. Indeed, in response to one of our recent interrogatories asking how one is to ascertain the "official position of the United States, the response was that the "official" position of the United States simply was that position advanced in the litigation!

As Mr. Briscoe noted, Mr. Claiborne appears to question the "equal-footing doctrine" under which states receive title to the beds of navigable waters within their boundaries at statehood.

Perhaps his extensive experience with the court makes it easier to question the wisdom of 140 years of consistent Supreme Court precedent. I will say that our more limited experience certainly makes us reluctant to do so (particularly when it is in our favor). I would simply remind Mr. Claiborne of a comment Justice Stevens made in one of our earlier confrontations: the Supreme Court may not be final because it is infallible; however, it is infallible because it is final.

Finally, I must make a few comments regarding Dinkum Sands. Mr. Claiborne asserts that it takes great courage for Alaska to advance the proposition that Dinkum Sands is an island since, according to Mr. Claiborne, it is below water for most of each year. First, I would point out that the Australian Oxford Pocket Dictionary defines the word "dinkum" as meaning "honest, genuine, or real." At the recent trial on this issue, we believe we proved that Dinkum Sands is appropriately named and is, indeed, an "honest, genuine, or real" island. Certainly the position advanced by the United States -- i.e., that it is not an island -- would come as quite a surprise to Andrew Oenga, an 84-year old Eskimo man who camped on Dinkum Sands as early as the spring of 1934. It also would come as a surprise to Admiral Harley Nygren, of the United States National Ocean Service, who charted Dinkum Sands in 1949. Perhaps most shocked would be the baby elder duck which was born on Dinkum Sands last summer and which we photographed happily cavorting on the high and dry sands and gravels of the island.

In conclusion, I would simply like to restate that no man, and no state or nation, is an island. However, if you see Mr. Claiborne, please remind him that Dinkum Sands is.

LUNCHEON SPEECH

INTRODUCTORY REMARKS

Stefan A. Riesenfeld
Boalt Hall School of Law
University of California, Berkeley

As co-chairman of the program for this year's conference, I have the distinct privilege of introducing the speaker at today's luncheon meeting. He is Hugo Caminos, who is the Assistant Secretary for Legal Affairs, Organization of American States. His address is entitled "The Law of the Sea Convention, Customary International Law, and the Role of Law Within the International Community." Before taking his present position, Mr. Caminos served in the Secretariat of the United Nations. In my view his greatest virtue is that he was a student at the University of California and worked under my distinguished predecessor, Professor Hans Kelson. As this background shows, he is a serious and renowned scholar, in addition to being a diplomat. Luckily these two attributes are not mutually exclusive but often mix well. With this brief introduction, I give the podium to His Excellency.

THE LAW OF THE SEA CONVENTION, CUSTOMARY INTERNATIONAL LAW, AND THE ROLE OF LAW WITHIN THE INTERNATIONAL COMMUNITY

Hugo Caminos*
Assistant Secretary for Legal Affairs,
Organization of American States

In any legal system to distinguish law from what is not constitutes a fundamental question.

In the field of international law, for well-known reasons, such a distinction often requires close study and consequently involves the problem of the sources of legal obligation within the law of nations to enable us to determine whether a certain rule or practice is actually an international legal norm.

Within the law of the sea this question has now become particularly controversial and in this Annual Conference, quite properly entitled "The Developing Order of the Oceans," you have heard some important declarations on the subject.

No doubt one of the reasons for the present state of affairs lies in the recent expansion and progressive development of the law of the sea: in the last 25 years the United Nations has convened three plenipotentiary conferences; there is an impressive growth of national legislation, resolutions of intergovernmental organizations, and state practice. This has transformed the law of the sea into a sort of lawyers' paradise.

After nearly two years the 1982 United Nations Convention on the Law of the Sea has attracted 136 signatures and 13 ratifications. In just over two months, on December 9, the period for signatures will have elapsed. Although the Convention will inevitably enter into force one year after the sixtieth state has ratified or acceded to it, this interim period of uncertainty has led to many legal questions of enormous significance. Undoubtedly one of the more important issues concerns the extent to which states that have not signed and have no current intention of becoming parties to the Convention may exercise rights embodied within the Convention which they alone have determined are reflective of customary international law.

Some very influential states are remaining outside the Convention because it is their opinion that they can pick the more favorable elements of the Convention and exercise rights accordingly as a large percentage, if not the vast majority, of the Convention reflects customary rights to be enjoyed by all states irrespective of whether they will become parties to the Convention or not.

It is certainly true that non-parties may enjoy rights as well as incur obligations on the basis of the Convention's customary provisions before and after the Convention enters into force.

---

*The views expressed in this address are personal.

However, the determination of which provisions are reflective and which are not is a critical and very difficult one.

The United States undertook an elaborate study of the legal status of the exclusive economic zone and, after determining that such a regime had achieved customary status, the President proclaimed a United States EEZ.

Few could argue that such a self-determination of customary rights would contravene international law or the purposes of the Convention as the exclusive economic zone was rapidly achieving objective legal status regardless of the fate of the Convention.

However, the exclusive economic zone emerging from the enactment of an important number of national laws and state practice does not appear to be the same exclusive economic zone regulated in Part V of the Convention. As we know, the latter contains some specific elements resulting from lengthy negotiations at the Conference which are not found in the unilateral proclamations or in general state practice. A significant example of this is the right of land-locked and geographically disadvantaged states to participate on an equitable basis in the exploitation of an appropriate part of the surplus of the living resources of the EEZ of coastal states within the same sub-region or region.

However, a relatively small portion of the Convention reflects the type of customary norms which allow states to begin exercising associated rights immediately.

More importantly, the package deal/consensus approach adopted at UNCLOS III would seem to further limit those provisions which reflect immediately exercisable customary rights under the Convention.

To develop this idea it is necessary to have recourse to the general objectives and procedure of the Conference.

Looking back, UNCLOS III was convened because the 1958 Conventions were neither flexible nor comprehensive enough to adapt to the evolving needs of the international community.

Furthermore, the emergence of many new states and the rapid advancement of technology rendered much of the 1958 Conventions obsolete.

UNCLOS III was convened as a law-making conference to (1) bring existing and still viable treaty rights and obligations up to date; (2) codify law that had achieved customary status since the conclusion of the 1958 Conference and (3) draft innovative norms necessary to regulate new and emerging activities and regimes.

We are all familiar with the way the Conference faced the methodological question.

Like Hernan Cortez did 465 years ago when he burned his ships after he landed in the coasts of the New World to start the quest of unknown lands, UNCLOS III in undertaking its gigantic task "burned" the traditional formal negotiating procedures that had been used throughout the history of codification and progressive development of international law. The Conference courageously implemented an unprecedented

methodology in its search for a universal convention that would accomodate the interests and needs of developed and developing countries alike.

It is the duty of international lawyers to keep in mind this outstanding effort and its contribution to the North-South dialogue and understanding. This uninterrupted dialogue is essential if we expect to live under a just and equitable international legal order.

The package deal/consensus approach was adopted to ensure that the three tasks I have mentioned before would be collectively embodied within a comprehensive agreement providing a unique legal regime for a unique environment: the world ocean. As Professor, and now Judge, Jennings has explained, the idea was to have a single law of the sea treaty with interdependent provisions "so that governments cannot pick and choose between the parts they like and the parts they do not like."

Therefore, some of the Convention's provisions which may on the surface appear to be reflective of customary law are in fact the product of compromise of which the corresponding element may or may not reflect customary law.

The package deal approach, it must be remembered, had been consented to without objection. This subsequently allowed states to consider all of the Convention's subject areas on a collective basis and to make trade-offs between any of the myriad draft provisions as their individual national interests dictated.

If the states that participated in the Conference are subsequently allowed to remain outside the Convention and to freely pick those portions of the enormous package of compromises, which the Convention now represents, that they find favor with, has not their previous obligation to the package deal been seriously undermined?

States who consented to the package deal/consensus approach are under an obligation to continue abiding by their decision even after the Conference had concluded and the Convention enters into force.

This idea touches upon the very essence of my brief comments. States should refrain from attempting to utilize international law to justify actions that will inevitably lead to serious conflict. The role of law within the international community is to provide ordered and collective cooperation in the normal exercise of mutually recognized rights and obligations.

Although many non-parties to the Convention will independently determine their rights on the basis of the Convention's articles which reflect, or will reflect, customary international law, such a process could undermine the role of law within the intercourse of states.

The very large number of states who labored through the many years of UNCLOS III committed to the package deal approach and who now remain committed seem determined not to acquiesce in any way to attempts by non-parties to unjustifiably transform many of the Convention's innovative provisions into customary international law.

Nevertheless, the enunciated position of many non-signatories clearly places much of the international community on a collision course. Such an inevitable conflict may be largely due to different perceptions about the process by which customary norms may now be created.

We are all familiar with the classical requirements of the customary process (time, uniformity and consistency, opinion juris sive necessitatis) but there can be no doubt that state practice lies at the heart of this process. Depending upon the character of the customary rule in the process of formation, the extent and type of state practice will vary.

For example, when initially the General Assembly and later UNCLOS III were proposing and attempting to legitimate the concept of the "common heritage of mankind" numerous votes had been taken on a virtually universal basis. Here the type of state practice sufficient to transform such a concept into customary law may manifest itself within the process of multilateral negotiation and may not necessarily require the type of more tangible state practice required for other rules.

On the other hand, the state practice necessary to bring the novel idea of transit passage, for example, within the spectrum of customary norms must be of the more physical and tangible variety -- that is, states must begin to both exercise and acquiesce to such an exercise before customary rules may be established.

This division between the type of state practice necessary to create customary law is, it must be noted, a subjective one. However, differences in legal perceptions between parties and non-parties to the Convention can only lead to serious confrontation within this subjective decision-making process.

For example, we now have two legal regimes simultaneously competing for one international activity -- deep seabed mining. One regime is based upon emerging treaty rights and obligations, the other upon a conflicting opinion of customary rights. The vast majority of the international community is currently committed to the treaty approach while the majority of those industrialized states with the technological capability to initially undertake deep seabed mining activities is committed to the conflicting customary view.

It is the principal objective of the treaty states to create a unique legal regime for the entire international community to govern the resources of the world ocean. It is, on the other hand, the principal objective of the deep seabed mining states to create an independently viable and attractive investment climate through a miniature regime providing for legal stability and security.

These two objectives can be considered as incompatible from one perspective, while from another perspective, as the one presented by Professor Jaenicke in this conference, efforts are being made to harmonize both regimes. It is not, however, the purpose of these remarks to offer any immediate solutions but to point out that what lies at the heart of this growing problem is now not so much differing political or economic ideologies but

competing legal perceptions about which elements of the modern law of the sea are established customary norms and the process by which other elements may be transformed into such rules.

As international lawyers we can interpret and be critical of the United Nations Convention on the Law of the Sea. Indeed this is one of the tasks of the science of law. Although our interpretation does not create law, in making our analysis and criticism we should not disregard our duty to support the role of law within the family of Nations. If we remain faithful to the principles and raison d'etre of our liberal profession we should not undermine the product of the work of 150 States which for more than ten years carried out meaningful negotiations to accomodate the interests and aspirations of both industrialized and developing countries.

I remember, many years ago, just across this beautiful San Francisco Bay, I had the great privilege of studying under Professor Hans Kelsen. He was critical of some aspects of the Dumbarton Oaks proposals, as later was of the Charter of the United Nations, particularly from the point of view of the legal technique. However, he always made it clear that even with its shortcomings, the Charter was an essential instrument to build up global peace, and as such it merited the support of those who believed in the function of law within the international community.

It has been said, war is something too serious to be left entirely in the hands of the military.

Let us not permit that someone in the not too distant future should assert that the development of the universal legal regime for the oceans now embodied in the United Nations Convention on the Law of the Sea was too serious a matter to be left merely in the hands of international lawyers.

PART VI

ARCTIC ENERGY RESOURCES

INTRODUCTORY REMARKS

Bernard H. Oxman
School of Law
University of Miami

As with the Arctic itself, we discover on our panel that we indeed have an embarrassment of riches.

Our first speaker is Dr. Robert Smith, who is in the Office of the Geographer of the United States Department of State. In that position he has developed some first-hand familiarity with the problem of projecting the setting in which a variety of economic, political, and legal issues arise. He will start off this panel discussion with the description of that setting.

Yesterday Professor Riesenfeld said that our second speaker, David Colson, Assistant Legal Adviser of the Department of State, needed no introduction; whether or not that was true then, by now it is certainly true.

We then move away from specifically political or legal issues to take a closer look at what many -- particularly non-lawyers -- would regard as the real world, the problems of economics and of engineering. Our third speaker is Mr. Randy Heintz, who is Director of Evaluation Engineering for the Explorations Operations Group of ARCO Alaska. He has a great deal of practical experience in assessing what it takes to engage in meaningful economic activities in that area.

Roger Herrera, our fourth speaker, will continue to look at some of these issues from his practical perspective as the Exploration Manager for the SOHIO Petroleum Company in Alaska. He holds B.A. and M.A. degrees from Oxford and has many years of experience in oil exploration, ranging from the U.S. and Canadian Arctic to the tropics of Colombia and Papua New Guinea.

Our fifth speaker is Willy Ostreng, director of the Fridthof Nansen Institute, our host last year in Oslo at the 17th Annual Conference. He is a well-known and perceptive observer of international affairs from a country with long historic ties to the Arctic.

Our first commentator, Esther Wunnicke, has been in practice for over twenty years as an attorney specializing in natural resource issues. She is currently the Director of the Department of Natural Resources of the State of Alaska.

Our second commentator's title taught me a lesson: while Cook Inlet may not be a historic bay, at least in the eyes of the Supreme Court of the United States, it is apparently a corporation. George Kriste is a graduate of the University of San Francisco Business School and the UCLA School of Law, and has been serving since 1977 as the Executive Vice-President of Cook Inlet Region, Inc.

Our third commentator has to be very well known to readers or workers in natural resources law or in the law of the sea. He is a member of the Executive Board of the Law of the Sea Institute, he is the program co-chairman of the conference, and

he was instrumental, indeed far more than I, in organizing our panel this afternoon. He is a member of the Los Angeles Bar, he heads the Energy and Natural Resources Group of the Finley, Kumble, Wagner law firm in Los Angeles, and he's chairman of the ABA Coordinating Group on Energy Law. Many of you will recall that he was exceedingly involved in the question of coastal zone management in the State of California. I've always felt I could turn to him for very sound and sensible advice on questions which were on the frontiers of the law. It gives me great pleasure to introduce Bud Krueger.

NATIONAL CLAIMS AND THE GEOGRAPHY OF THE ARCTIC

Robert W. Smith
Chief, International Boundary and Resource Division
Office of the Geographer
U.S. Department of State

INTRODUCTION

The Arctic region is truly a frontier. The idea of a frontier may vary somewhat depending on one's profession, but in the most general terms a frontier suggests "a region that forms the margin of settled or developed territory," or, "the farthermost limits of knowledge or achievement, a new field that offers scope for activity" [1]. As these definitions suggest, the concept of frontier involves not only the question of place but of utilization. From a human and political geographic perspective the Arctic is a frontier because its territories form a zone that separates settled from sparsely-populated or uninhabited areas of countries. To Prescott, a distinguished Australian political geographer, the Arctic region would represent a secondary settlement frontier. Whereas primary settlement frontiers are formed when a government first takes possession of a territory, such as the American West during the 1800s, secondary settlement frontiers are found in countries where adverse environmental conditions or "inadequate techniques hinder further advances of land use and settlement" [2]. From the utilization criterion, offshore areas of the Arctic could be considered as on the frontier, or on the fringe of economic development. Recognizing this stage of development, a recent report by a Special Committee of the Canadian Senate stated [3]:

> Industry is gearing up to move from the exploration and development phases to the production stage in frontier regions. Yet the priorities for frontier hydrocarbon development remain unclear and ground rules for bringing arctic petroleum resources to market are only just being established.

Generally it is true that certain factors, either individually or collectively, such as technological developments, population pressures (for food or space), economic motives, national security concerns, or the pursuit of scientific knowledge, may cause a nation to grant a higher level of importance to areas previously perceived to be inhospitable. The Soviet Union, for example, has probably spent much effort, time, and money to study the Arctic and to develop and use its lands and seas. Though much is already known about the Arctic, experts of the region would be probably be the first to admit that a better understanding of this complex environment is required, especially if increased activity is to occur here.

Undoubtedly, interest in Arctic affairs at all political levels -- national, regional and global -- will continue to increase. Inspired by national and international politics and economics and assisted by more innovative and advanced technology, some governments will seek to exploit further this region for many reasons, including economic and security purposes. Concurrently, some governments, perhaps even the same, may attempt, through national legislation or in international fora, to place more restrictions on activities in this fragile environment. International as well as domestic disputes have arisen and will likely occur in the future between Arctic coastal states and potential users. These disputes focus primarily on matters pertaining to maritime boundary delimitations, navigational and overflight rights, and environmental concerns.

Although surrounded by only five countries, the Arctic Ocean and the adjacent seas are of global concern. Exploration and exploitation of offshore minerals and hydrocarbons will be affected and affect world demand and prices. From a political-military perspective, the littoral states comprise the Soviet Union, on the one hand, and the NATO countries of the United States, Canada, Denmark, and Norway, on the other hand. Climatically, the polar regions are indicators as well as regulators of worldwide climatic change. Finally, due to the unique characteristics of the region, a major disaster, such as an oilfield blowout, brought on by man's activities in that environment could be irreparable in our lifetime and could even cause a chain reaction that would affect other regions of the world in ways that are presently unpredictable.

The intent of this paper is to present a survey of this complex region and give a flavor of the various geographic components present. It is likely that the unique geographic characteristics of the Arctic have influenced the policy decisions of the littoral states which are reflected, to a certain extent, by national legislation or by legal positions at the bilateral or multilateral levels. While the geography of both land and water will be presented, emphasis will be given to the marine areas.

THE ARCTIC REGION

A geographer normally begins a regional study by attempting to precisely define that region. In this case it is not easy to clearly define what comprises the Arctic region. Most Arctic limits are based on climate-related criteria, such as the limits of (1) sea-ice coverage, (2) permafrost, (3) the tree line, or (4) the 10 degree C. (50 degrees F.) surface air isotherm for July (the warmest month). The Arctic Circle, identified by map-makers at approximately the 67 degree 33 minute parallel of north latitude, defines that area in the northern latitudes over which during one day of the year the sun does not set and during one day of the year the sun does not rise. Under any generally accepted definition, the Arctic region will include areas of

land, water, and ice. And most definitions would include the five countries cited above and, in certain cases, Finland, Iceland, and Sweden as well. Since the focus of these discussions is on marine resources and the law of the sea, the geographic scope of the paper will be on the Arctic Ocean and the adjacent seas extending south from the North Pole to just north of the Arctic Circle (Map 1).

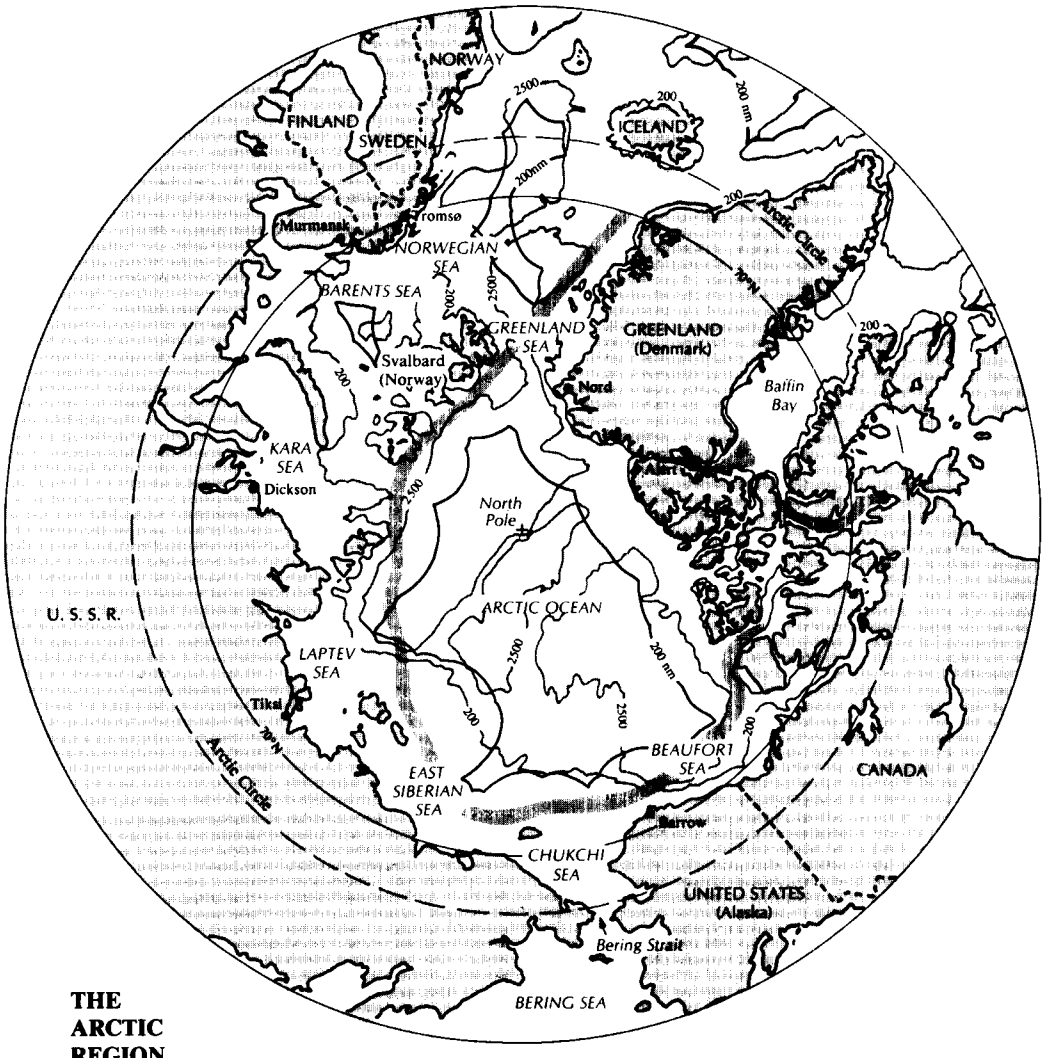
PHYSICAL GEOGRAPHY

Continental land masses nearly enclose the Arctic Ocean. Only the narrow Bering Strait connects the Arctic Ocean with the Pacific Ocean, through the Bering Sea, while larger outlets lead through the Greenland and Norwegian Seas, and to a lesser extent, through Baffin Bay and the Davis Strait, to the North Atlantic Ocean. The major seas which border the Arctic Ocean are, in a clockwise direction from the Bering Strait: Chukchi, East Siberian, Laptev, Kara, Barents, Norwegian, Greenland, Baffin Bay, and Beaufort. The Soviet Union has the longest coastline facing this region followed by Canada, the United States, Norway, and Greenland (Denmark).

With an area of about 14 million square kilometers (4.1 million square nautical miles) the Arctic Ocean is the world's fourth largest ocean. Probably over one-half the area is underlain with shallow water of less than 500 meters' depth. Maximum depths exceed 4000 meters in several of the basins. Bottom topography is diverse with broad continental shelves, plateaus, and several mountain systems. The two large basins, the Eurasia Basin and the Amerasia Basin, are separated by the Lomonosov Ridge, which stretches for approximately 1400 kilometers between the North Greenland Shelf to the shelf off Siberia. The Ridge is between 20 and 200 kilometers wide and the depth of its crest varies between 825 meters and 1200 meters.

Although the literature does not precisely define the Arctic continental shelf, it is clear that broad areas would fall in the category of less than 500 meters' depth. The seabed contours are not uniform around the Arctic perimeter. North of the Soviet Union near Franz Joseph Land these shelves extend out for about 1500 kilometers (800 nautical miles) from the mainland. But these broad shelf areas off the Soviet coast narrow north and northeast of Alaska's North Slope to about 30-40 kilometers (16-22 nautical miles). The region's relatively shallow depths encourage hydrocarbon exploration but present hazards to navigation, particularly to submarines.

An Arctic image may bring to mind severe climatic conditions. While many of the world's record-breaking climatic extremes may not be found in this region, natural elements here certainly challenge the endeavors of man. A 1983 press report gives a graphic description of the conditions facing man as he attempts to exploit the Arctic resources [4]:



THE ARCTIC REGION

Names and boundary representation are not necessarily authoritative

0 200 400 600
Nautical Miles

Average minimum extent of sea ice
200 and 2,500 meter depth curve
200 nautical mile arc
International boundary

MAP 1

> Measured by the wind-chill factor, the temperature was 86 degrees below zero, driving snow made it impossible to see more than a few feet and even the ravens seemed to be huddling from the cold. It was a typical March day at Prudhoe Bay, America's bigger oilfield.

Though generalizations may be made about this region, it is not possible to describe the Arctic as a single environment. The lands and seas surrounding the Arctic Ocean vary in weather patterns, terrain, ice conditions, vegetation and many other aspects of physical geography.

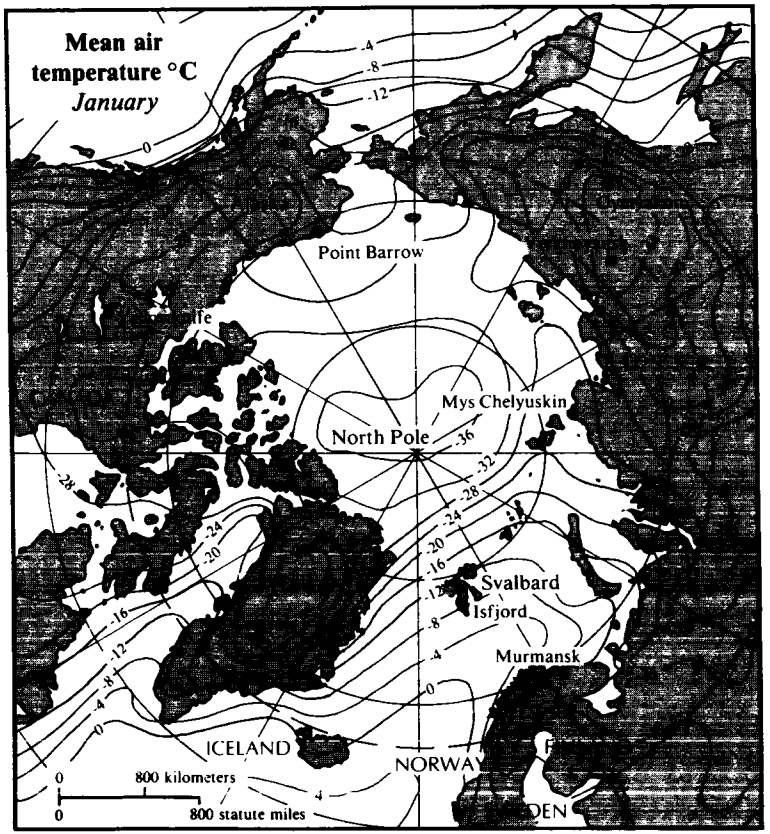
Climate

Low temperatures are a dominant feature in the Arctic climate. The Arctic's high latitudes are subject to extreme seasonal changes in temperature, sunlight, and ice conditions. Even during the period of the year when daylight is present, radiation is received from a low angle which lessens its intensity, and much of this solar radiation is reflected by the snow and ice-covered surfaces (the albedo). These characteristics, together with the extended period of darkness or twilight, result in a net radiation heat loss for the region.

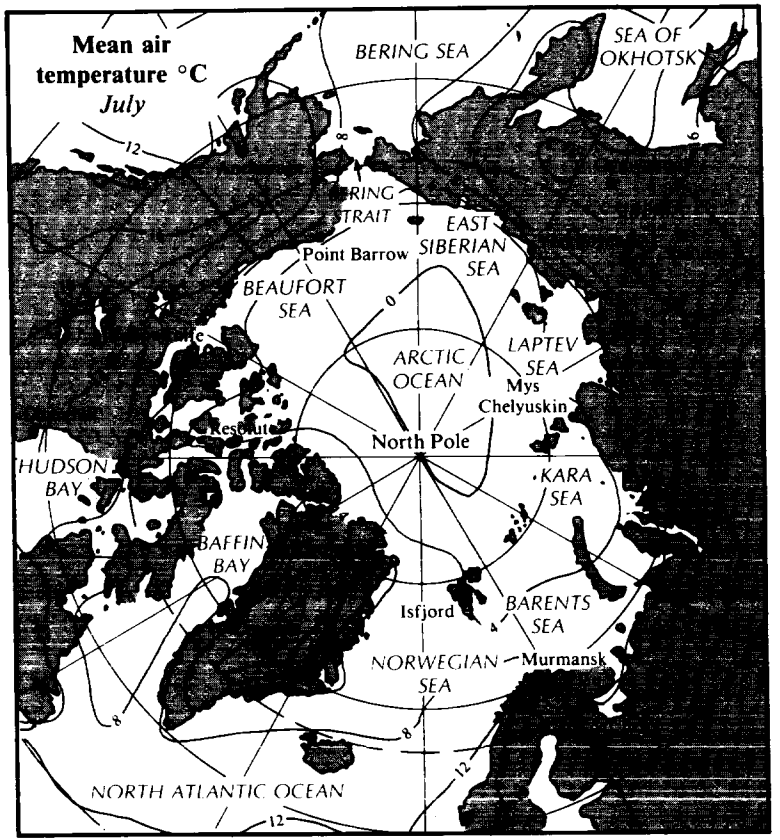
The climatic conditions vary significantly from one part of the Arctic to another. Isotherm maps of mean air temperature for the months of January and July indicate the wide variations of temperature in the region as well as maritime and continental influences on the climate. Extreme temperatures in the winter are found deep into the Subarctic continental land mass of Soviet Siberia and on the high Greenland Ice Sheet and, to a lesser extent, northern Canada. Here, mean air temperatures for January exceed -44 degress C. (-47 degrees F. -- see Map 2A). The area of permanent icepack in the central Arctic Basin is subject to slightly warmer mean temperatures of -36 degrees C. Coastal regions of Norway, Iceland, and northwest Soviet Union are within the maritime influence of the Gulf Stream which, although diminished in the winter months, keeps these areas at a mean January temperature of about 0 degrees C. A somewhat different temperature pattern is found in mid-summer (Map 2B). Central Greenland remains quite frigid, mean air temperatures reaching -12 degress C. (10 degrees F.) due to the high elevation and the vast ice sheet. In the other area of extreme low winter temperatures, central Siberia, the mean air temperature swings about 105 degrees C. upward between January and July. The coastal regions have less of a temperature change: the July mean is about 9-10 degrees C. (48-50 degrees F.).

Low temperatures limit the moisture-bearing capacity of the atmosphere. During the summer months and the return of sunlight one finds the melting snow and ice, more open water and moist air drawn in from the south. Most precipitation normally occurs in the summer months, but it is not excessive.

Some Siberian and Canadian coastal areas receive only 10cm of annual precipitation, most of the Arctic receives under 25cm,


Mean air temperature °C
January
Point Barrow
Mys Chelyuskin
North Pole
Svalbard
Isfjord
Murmansk
ICELAND
NORWAY
0
800 kilometers
0
800 statute miles

MAP 2A


Mean air temperature °C
July
BERING SEA
SEA OF OKHOTSK
Point Barrow
BEAUFORT SEA
EAST SIBERIAN SEA
ARCTIC OCEAN
LAPTEV SEA
Mys Chelyuskin
North Pole
HUDSON BAY
KARA SEA
BAFFIN BAY
Isfjord
BARENTS SEA
NORWEGIAN SEA
Murmansk
NORTH ATLANTIC OCEAN

MAP 2B

and some areas 40cm [5]. Low precipitation and low humidity found in the high elevations of Greenland and in the Canadian islands give these areas the characteristic of an Arctic desert. In contrast, the low coastal plain around Barrow, Alaska, has poor drainage and is dotted with ponds, lakes, and swamps.

Ice

The climatic conditions are the single most important influence on the physical landscape of ice and permafrost. These two elements, unique to the polar regions, are key factors man must understand before this environment can be utilized to any great extent. Each autumn the ice remaining after the summer's thaw expands from a summer average minimum of 5.2 million square kilometers (1.5 million square nautical miles -- an area about twice that of the Mediterranean Sea) to a winter average maximum of 11.7 million square kilometers (3.4 million square nautical miles -- or 1.3 times the size of Canada -- [6]). The outer margin of ice soon merges with the new ice forming from the coastline, ending surface navigation for the season. For the most part, the Arctic Ocean is ice-locked from October to June. Navigational seasons will vary from year to year and from place to place. Climatic changes are noticeable as changes in the length of shipping seasons. From the early 1900s to about 1940 there was a distinct global warming trend which extended the shipping season by a few weeks each year. Since 1940, however, there has been a shift towards a cooler climate; the ice forms earlier and lasts longer and thereby curtails shipping. By Soviet estimates, the ice-covered area between Greenland and the eastern tip of the Soviet Union has, on the average, increased by 600,000 square kilometers during the summer months and the length of the summer season north of the Soviet coast has been shortened by almost a month [7].

A detailed description and analysis of the type of ice present in the Arctic -- i.e., its age, its origin (sea ice vs. land or glacial ice), its size, its dynamic status, and its pattern of movement -- is beyond the scope of this overview. Much effort and money are being spent in studying these ice conditions and forecasting when critical ice events, such as the seasonal formations and thaws and movements of sea ice, will occur.

Permafrost

In addition to the problems created by ice, permafrost is the other major impediment to man's development of the north. Permafrost is a climate-dependent phenomenon which occurs wherever ground (or seabed) temperatures remain continuously below freezing for two or more years. Its existence and extent, particularly its depth, are determined by the net heat deficiency of the area. The greatest recorded permafrost thickness is about 1500 meters in Siberia and 500 meters in parts of Canada, depths attained only after thousands of years of negative heat balances [8]. Permafrost is overlain by an active layer which seasonally melts and then refreezes. The

depth of this active layer varies throughout the region and is dependent upon the summer temperatures, the amount of soil moisture, and the length of the seasons. Generally, this layer will be between 0.5 and 5 meters.

Permafrost is found, to some extent, virtually everywhere in the Arctic. On land the continuous zone of permafrost is found along the Arctic Ocean coastal area dipping deep into Greenland, Canadian, and Siberian interiors. Offshore permafrost, which may also be extensive, is found in the seabeds. The influences of permafrost on man's use of the region are numerous and critical. One only has to travel through parts of the Arctic to see where man has misunderstood this phenomenon. A sag in a house usually indicates where the stove is located; the heat generated has melted the permafrost. A disturbance of the permafrost, particularly on a large scale, can affect and perhaps irreparably damage the area's fragile ecosystem. Thus, concern is always great during large undertakings, such as the planning and building of the 800-mile Alaskan pipeline. Offshore permafrost poses new problems to companies that plan to explore and exploit offshore minerals and hydrocarbons. Structures to be anchored on the seafloor must be constructed in such a way that they do not disturb the permafrost and do withstand the ever-changing ice conditions. Technology continues to be developed to overcome these natural challenges. It is inevitable, however, that extraction of natural resources from this environment will cost more than similar operations in the lower latitudes, and, to justify this cost, companies will have to be relatively assured of the existence of large quantities of a particular resource.

ECONOMIC GEOGRAPHY

Resources

Generally, resource development in the Arctic has been minimal. Living resources, fish and mammals, have always been important to native people for their diets, clothing, and trading. Commercial hunting of mammals, particularly whales, was well established by the middle of the nineteenth century. Several populations of whales, walruses and seals have been overharvested and face the possibility of extinction. Recent international agreements severely restrict the hunting of these endangered species. Commercial fishing is quite important to many countries in the seas adjacent to the Arctic Ocean. Cod, pollock, and haddock are important stocks. On the Atlantic side of the Arctic, capelin is a major pelagic commercial stock, surpassing the declining herring stock in importance. Overfishing of several of these stocks has created concern about management and conservation among several of the coastal and fishing states.

Non-living resource extraction has been, with few exceptions, rather localized. With the exception of the Soviet Union, which has had a relatively active northern development program since the 1930s, the Arctic region has not been an

active area for resource development. The Soviet government has made major financial commitments to establish industrial areas. Incentives were, and continue to be, needed to encourage people to move to these unfavorable locations. Exceptional costs are involved in overcoming the hurdles presented by the physical conditions. It is estimated that over 50 percent of the four million people that live in what the Soviets term the "far north" live either in the mining districts or along the major river valleys. Another 25 percent are located in coastal settlements involved either in fishing or military activities, and about 15 percent are people native to the region [9]. This sparsely-populated region has little potential for agriculture and its economy is based on mining and manufacturing [10]. More minerals are extracted by the Soviet Union in the Arctic region than by any other littoral state. Of particular importance to the Soviet effort are the deposits of nickel, copper, platinum, apatite, tin, diamonds, gold, and coking coal. Due to these mining and manufacturing activities more cities have developed in the Soviet Arctic than in the other Arctic areas.

Offshore Arctic oil and gas presently do not play a large role in the Soviet economy. It is expected, however, that petroleum production from this offshore area will gain greater importance in the satisfaction of future Soviet needs. Exploration is presently being conducted on the continental shelves of the Barents and Kara Seas.

Elsewhere in the Arctic there are pockets of valuable mineral deposits. Among the more significant are coal on Svalbard, on both coasts of Greenland at about the 70 degree parallel, and on Alaska's North Slope. Lead and zinc deposits are being extracted from Greenland and at several locations in Canada's northern islands. Silver is mined in Canada's Northwest Territories.

The discovery of major hydrocarbon fields has created tremendous interest in the Arctic. To date, the most significant finds of oil and gas have been in the Canadian and U.S. Arctic. Canada's oil and gas are situated in two primary areas: the Beaufort Sea-Mackenzie Delta region and in the high Arctic islands. It is expected that by 1987 one or two of the Beaufort Sea-Mackenzie oil fields will be in production at the "realistic" production rate of 38,000 barrels/day (b/d) reaching 270,000 b/d by 1990 and 770,000 b/d by the year 2000 [11]. In the offshore area fifteen wells have been drilled in water depths ranging from 23 to 68 meters [12]. In the Arctic Islands area exploration over the last fifteen years has established natural gas reserves of 13 trillion cubic feet (tcf). The Drake Point field alone has 5.3 tcf [13]. The bulk of these gas reserves discovered thus far lie offshore.

In the U.S. Arctic 1967 marks a historic point, the Prudhoe Bay discovery. The Prudhoe Bay field, incidentally, stimulated the creation of the North Slope Borough. Incorporated in 1972, it is the largest municipality in land area, approximately 227,920 square kilometers, or about 15 percent of the state (which would make it the tenth largest state in the union), yet

it has only 4300 permanent residents [14]. The average 1.5 million barrels of crude oil produced daily at Prudhoe represents about 18 percent of the nation's crude oil production [15]. In 1980 the state of Alaska gave a "most likely" estimate of between 14.5 and 18.6 billion barrels of oil and gas for the North Slope [16].

Transportation

A critical element in the development of the resources in any area is the means by which the product will be transported to the market place. Impediments, be they natural or man-made, will elevate transportation costs and, in turn, cut the profit margin. Therefore, in environments such as are found in the Arctic, companies must take into consideration the risks imposed not only at the exploratory and production stages but also at the time the resources are to be transported.

In Alaska the 800-mile pipeline carries the crude oil on the first leg, from Prudhoe to Valdez, of its journey to the market place. From this southern port the oil is transported in tankers to to its destination. The Manhattan, in 1969, proved it was possible for a tanker-icebreaker to transit the waters of the Northwest Passage, much to Ottawa's consternation. But the shipping mode of transportation does have a disadvantage to the pipeline in that it is more subject to severe climatic constraints. Ice, which is present nine to ten months, and the foggy and windy summer weather make shipping in the Arctic hazardous throughout the year. The shallowness of much of the coastal waters may hinder the use of submarine tankers. Because of this factor, the route through the Bering Strait may not be a viable alternative to either the pipeline or to the Northwest Passage. Use of tankers may be more feasible in transporting oil and gas from the Canadian Arctic Islands.

The waters of the Soviet north, both ocean and river routes, play an important role in Soviet development. Several major river systems flow into the Arctic seas including, from west to east, the Severnaya Dvina, Pechora, Ob, Yenisey, Lena, and the Kolyma. Water transportation links the settlements along these respective rivers and along the Arctic coast. The Soviet government places a high national priority, for economic and strategic purposes, on its Northern Sea Route. This route stretches for about 2,800 kilometers (1500 nautical miles) from Novaya Zemlya to the Bering Strait. During the two to four months in which navigation is possible, several hundred ships transit some part of the route. Few ships actually complete the entire route. Soviet icebreakers and pilots assist the vessels along the various segments. The Soviet government is quite sensitive about and restrictive of the shipping that occurs along most areas north of its coast. The rights of navigation in these Arctic waters is an ongoing issue between Moscow and several maritime states, including the United States.

Each of the five countries -- United States, Soviet Union, Norway, Denmark, and Canada -- have made claims to sovereign rights and jurisdiction over various areas of the Arctic. In some instances these claims overlap the claims of another state, or, in a few situations, they are contested by other countries as being contrary to the norms of international law. Several of the claims and the subsequent bilateral and multilateral issues raised by them are, to a certain measure, a result of geographical circumstances.

Technical Issues

Before discussing the particular maritime claims, two technical issues unique to the polar regions should be raised. These issues relate to the problem of accurately determining and depicting the various zones of jurisdiction. The first technical issue involves the use of charts and maps. To assert and enforce a claim to jurisdiction effectively a state must clearly publicize its claim. If the claim is shown on charts, there is the possibility, depending on the projection of the chart, of major distortions in the presentation. The most popular chart for maritime use is based on the Mercator projection which portrays a straight line as a line of constant compass direction. However, the Mercator, on which parallels of latitude and meridians of longitude are always perpendicular to each other, creates great distortions of shape and distance in the higher latitudes. Greenland, for example, appears much larger than Australia, although the latter is three and a half times larger.

The selection and use of charts becomes most important in bilateral matters when boundaries are to be delimited between neighbors. When using large scale charts of perhaps 1:100,000 or larger, the type of projection may not have much impact on the accuracy of the depictions of the coastal features or on the perceptions of the boundary region. But at a scale smaller than 1:100,000, the "Greenland effect" may create serious difficulties in several aspects of the boundary delimitation process [17].

A second technical issue relates to the baseline. Critical to the accurate delimitation of the territorial sea and the other maritime zones based on distance from the coast is the identification of the baseline. The harsh physical environment in the Arctic has made difficult the conduct of modern surveys in locating the extent of these northern territories with the accuracy or precision normally required in this technical/legal exercise. In particular, the sea ice poses a problem of preventing the exact determination of some form of the low water line which, in areas not subject to straight baselines, is to be the baseline from which the territorial sea is to be measured. Even a system of straight baselines must have clearly identified basepoints, based on land territory. The year-long, or in some areas multi-month, ice coverage makes identification of a low

water line an extremely difficult, if not impossible, task. Two examples will illustrate this problem.

In 1973 Canada and Denmark signed an agreement delimiting the continental shelf in the Davis Strait, Baffin Bay, and the Nares Strait. This boundary is, for the most part, an equidistant line. Essential to such a delimitation are the respective baselines from which to calculate equal distances. That both sides recognize the difficulty of determining these baselines is clear in the treaty [18]. Article III states that due to inadequate knowledge of the low-water line along all parts of the coasts of both Greenland and the Canadian Arctic Islands, neither state would be permitted to issue licenses for the exploitation of mineral resources in areas bordering the boundary without prior agreement of the other party. Article IV asserts that the two parties will cooperate in obtaining and improving the knowledge of the charting and mapping in the region. If new and better information is obtained, the parties are obliged, according to the treaty, to recalculate the line [19]. The fact that the boundary stops at the 82 degree 13 minute parallel of north latitude, short of their respective limits of jurisdiction, probably indicates their lack of confidence regarding information on coastlines specifically, and the overall geography in general.

A second example involves the current U.S. vs. Alaska Supreme Court case. One of the many questions before the Court is whether or not a physical feature named Dinkum Sands is a part of the United States baseline. An affirmative answer would, under domestic law, give to Alaska the rights to the submerged lands below the three-nautical-mile territorial sea generated by the Dinkum Sands baseline. A decision that Dinkum Sands is a submerged feature and therefore not a part of the baseline would take from the U.S. about 21 square nautical miles of territorial sea but give to the federal government an equal amount of additional submerged lands. The area of this feature varies seasonally but is generally only about 40 by 20 feet, smaller than this room, and sits seven nautical miles seaward of the Alaskan mainland. Because sea ice covers the feature approximately nine months of the year, it has been difficult for Alaskan and federal officials to get an accurate vertical datum reading for the entire year; the tidal range in this area is but a few inches. Dinkum Sands is composed of gravel and ice; with the arrival of the summer months the ice partially melts and the gravel sinks, thereby altering the feature's elevation. Stories told of the attempts to obtain needed hydrographic information are both funny and sad. To have all the expensive tidal gauge equipment set up to answer, without doubt, the Court's questions only to have the forward seasonal movement of the ice demolish and consume the equipment leaves a bittersweet mental image. The familiar phrase, made popular in a commercial, "It's not nice to fool with Mother Nature," always comes to mind when this attempt off the north slope of Alaska is recalled.

Table 1 provides a summary of the primary maritime claims of the five Arctic states which, though few in number, have established a variety of claims. For example, three different breadths are used for territorial sea claims in the region: Denmark and the United States claim three miles, Norway claims four miles, and the USSR and Canada claim twelve miles, the maximum breadth permitted under the 1982 Law of the Sea (LOS) Convention [20]. Each state has claimed an extended zone over which it will exert jurisdiction over resources; Canada and Denmark have not yet claimed exclusive economic zones although they claim jurisdiction over living resources. Canada has enacted other legislation, particularly its Arctic Waters Pollution Act, which covers many of its concerns off its Arctic coasts. Disputes over areas where jurisdictional claims overlap may intensify as several of the states broaden the areas of their offshore exploration and exploitation. New developments in shipping technology may also create tensions over the rights of navigation in this area. The following is a synopsis of the known national claims.

United States

The claims made by the United States in the Arctic are essentially no different than those applied elsewhere off its other coasts. It maintains a three-mile territorial sea, a claim dating from 1793, as measured from the mean low-water line as indicated on official charts. On 1 March 1977, the United States established a 200-mile fishery conservation zone. And on 10 March 1983, President Reagan proclaimed a 200-mile exclusive economic zone off the coasts of the United States, the Commonwealth of Puerto Rico, and off the Northern Marianas (consistent with the United Nations trusteeship agreement), and its overseas possessions. As specified by the President, "the exclusive economic zone remains an area beyond the territory and territorial sea of the United States in which all states enjoy the high seas freedoms of navigation, overflight, the laying of submarine cables and pipelines, and other internationally lawful uses of the sea" [21].

From the northern land boundary terminus with Canada to the Seward Peninsula, facing Little Diomede Island in the Bering Strait, the Alaskan baseline from which the territorial sea is measured is approximately 922 nautical miles in length. The territorial sea off this part of the Alaskan coast incorporates about 2,800 square nautical miles; the area enclosed between the limits of the exclusive economic zone and the baseline is approximately 143,500 square nautical miles [22].

In the Arctic, extended maritime jurisdiction by the United States and by its neighbors Canada and the Soviet Union has created situations where boundaries are required [23]. In the east the United States has claimed that its lateral limit with Canada be an equidistant line. Canada, on the other hand, argues that an extension of the land boundary along the 141st meridian of longitude is the proper method to employ. The Canadian assertion is based on its interpretation of nineteenth

Table 1
Primary Maritime Claims of Arctic States

	Canada	Denmark (Greenland)	Norway	USSR	USA
Claim (1)					
Territorial sea	12	3	4	12	3
Fishing Zone	200	200			
Continental shelf (2)	200m/E	200m/E	200m/E	200m	200m/E
Economic Zone			200	200	200
Conventions (3)					
1958 Territorial Sea & Contiguous Zone		R(4)		R(6)	R(4)
1958 Continental Shelf	R(4,5)	R	R(4)	R	R(4)
1982 LOS	S	S	S	S(5)	

1 All miles are nautical miles;
2 m = meters; E = limit of exploitation
3 S = signed; R = ratified;
4 With a statement
5 With a declaration;
6 With a reservation

century treaties and on unilateral use of the extension for domestic purposes. The relevant treaties are the 1825 Convention between Great Britain and Russia, in which the boundaries between the two countries were delimited, and the 1867 treaty in which Russia ceded Alaska to the United States. Both treaties described, in part, the eastern limit of the U.S. A disagreement exists between Canada and the United States over Canada's contention that the boundary between the two states continues seaward beyond the land territory along the 141st meridian of longitude [24]. The United States considers that the boundary, described in the 1825 and 1867 treaties, stops at the coastline.

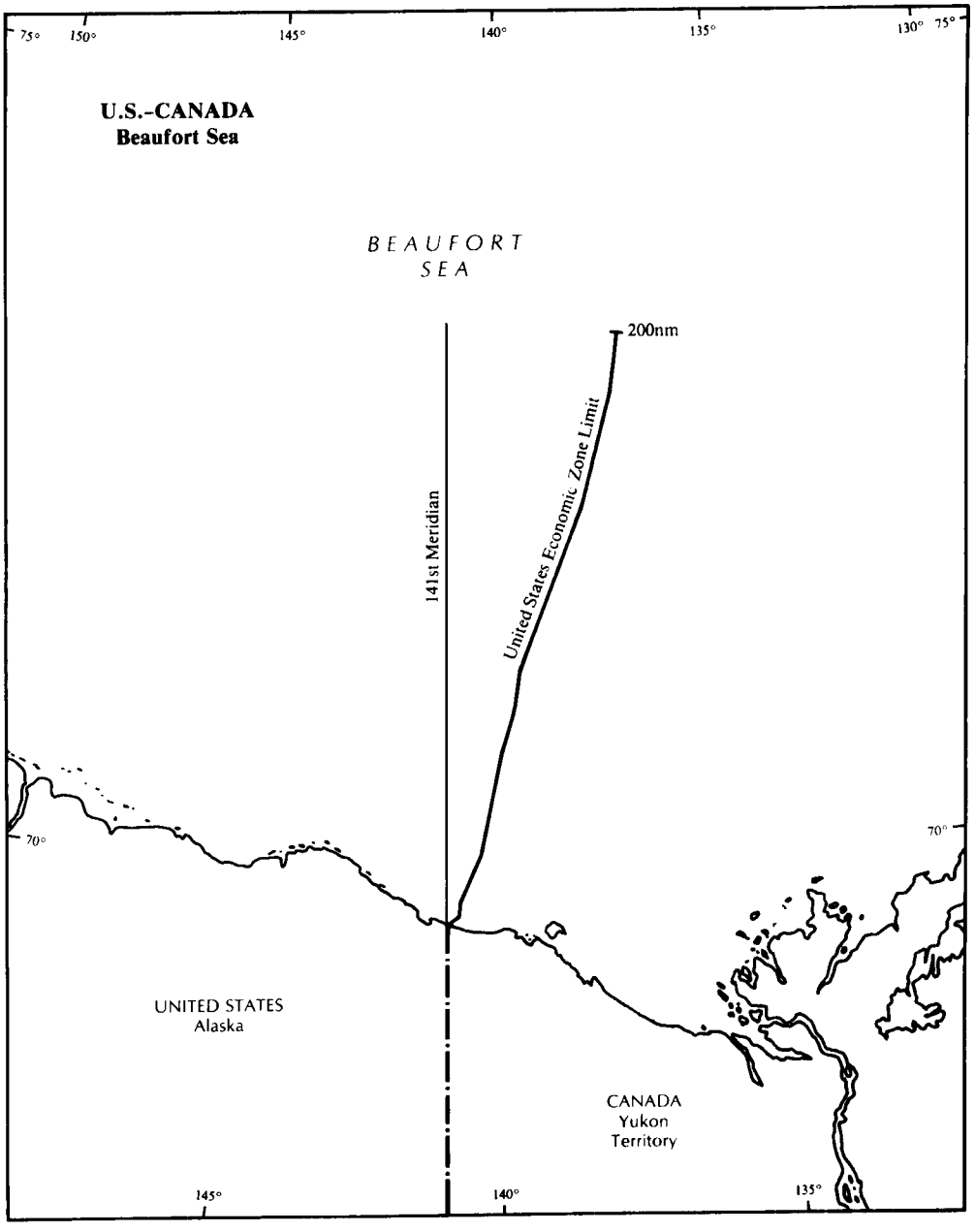
The claims of the two parties have created a triangular-shaped area encompassing approximately 6100 square nautical miles out to the 200-mile limit (see Map 3). Given the interest of both governments in exploring for and exploiting resources in this area, it is likely that further discussions will be forthcoming in the near future.

The United States' western Arctic limits abut those of the Soviet Union. Here, the 1867 Convention between the United States and Russia is applicable to the limits of current maritime jurisdiction. Whereas the 1825 and 1867 Conventions define, and subsequent practice confirms, the eastern limits of the U.S. as a land boundary, the 1867 Convention specifies, and subsequent practice confirms, the western limits of the United States extending out through marine areas as the maritime boundary. The 1867 Convention ceded all territory and dominion east of the Convention Line to the U.S., thus the cession included all maritime jurisdiction appertaining to Alaska.

Soviet Union

It is without any doubt that Moscow places great importance on its northern frontiers and that it views this area to be a vast vulnerable zone. Strategically, the Soviet Union must give the Arctic a high national priority, given that its neighbors on the Arctic perimeter are NATO-aligned states. The Soviet Union's only northern ice-free port and large naval base at Murmansk is located at its northwest tip near the Norwegian boundary. The movement of Soviet vessels in and out of the North Atlantic through the Norwegian Sea is closely monitored by the Western states. For strategic and economic reasons the Soviet government has an intense interest in maintaining the capability of transiting the Arctic seas eastward from Murmansk along its northern coast to the Bering Strait and the Pacific coast. Concurrently, Moscow has placed severe restrictions on foreign presence in these waters.

The Soviet maritime claims as they apply to the Arctic are not entirely clear. There appears to be a distinction between a de jure and a de facto treatment of the Arctic marine areas by the Soviet Union. In particular, there are questions regarding (1) the legal application of the so-called sector lines, (2) the status of certain bodies of waters in the region, and (3) navigation and overflight rights in this part of the Arctic.


75°
150°
145°
140°
135°
130°
75°
U.S.-CANADA
Beaufort Sea
BEAUFORT
SEA
200nm
United States Economic Zone Limit
141st Meridian
70°
70°
UNITED STATES
Alaska
CANADA
Yukon
Territory
145°
140°
135°

MAP 3

Soviet state practice does not always appear to reflect state laws. Writers of scholarly works on Soviet maritime law seem to rely on the writings of Soviet jurists in determining Soviet positions. Although some of the legal writings may be based on information close to the source and may reflect the intent of the government, they nevertheless are not primary documents, they are not the laws or decrees.

It is unclear when the Soviet Union first claimed a twelve-mile territorial sea, and Butler asserts that not until the "adoption of the 1960 statute on the state boundary did the twelve-mile limit of territorial waters find unequivocal support in Soviet legislation" [25]. The twelve-mile territorial sea claim most recently has been reasserted in the revised Soviet Law on the USSR State Border, effective 1 March 1983. According to Article 5 of the law, the territorial sea is to be measured from the low-water line, or from straight baselines. There are no known straight baselines claimed along the Arctic coastline [26]. Thus, based on the 1983 law, the territorial sea would be measured from the low-water line of the mainland and island coasts as well as from juridicial bay closing lines. There are no known Soviet maps or charts published and available to the public which depict its territorial sea or other maritime zones.

By a 15 April 1926 decree, the Soviet Central Executive Committee declared as Soviet territory all the land and islands "already discovered or discovered in the future" which at the time of the decree were not recognized by the Soviet Union as belonging to another state. The limits of this claim were given as 32 degrees 04 minutes 35 seconds east longitude, on the west, and 168 degrees 49 minutes 30 seconds west longitude, in the east. In the west the claim deviates from the said meridian as it coincides with the eastern limits of the 1920 Spitzbergen Treaty. Therefore, in accordance with this treaty, the Soviet Union recognizes Norwegian sovereignty over the Svalbard Islands. The meridian in the east is based on the Soviet interpretation of the 1867 United States-Russia Convention. While the United States disagrees with the sector principle, it does consider the meridian cited in the 1867 Convention as part of a valid maritime boundary between the two states.

The uncertainty of Arctic geography is evident in the 1926 decree as Moscow lays claim to any islands found between the two meridians which may not be known at the time. It is also important to note that the Soviet decree claims only land territories and that no mention is made of the intervening waters and ice. This aspect of the decree has been the focus of much consternation among many Soviet jurists, several of whom firmly believe the entire Arctic sector should be under Soviet sovereignty. Others believe that, due to the unique geography of the region, the baseline from which to measure the territorial sea and other maritime zones should be along the fringe of ice as well as along the land territory [27]. A 1932 article published by the legal adviser to the USSR People's Commissariat for Foreign Affairs, however, reiterated that the 1926 decree merely defined the area in which the Soviet Union

laid claim to lands discovered and undiscovered [28]. After an extensive review of Soviet legislation and practice, Butler concludes that nothing suggests that the coordinate values published in the 1926 decree were meant to define the limits of Soviet sovereignty. In fact, "foreign commercial vessels, research vessels, fishing and sealing craft, warships, and submarines have frequented the seas north of the Soviet Union without protest. So too have manned, drifting ice stations crossed from 'sector' to 'sector' without an allegation by any Power that territorial rights had been breached" [29].

The Soviet Union asserts that foreign ships do not enjoy complete navigational freedoms in the Arctic waters north of its coasts. Perhaps the most celebrated case in which a ship was denied this freedom occurred in 1967 when Moscow advised Washington that transit by U.S. Coast Guard icebreakers through the Vil'kitskii Strait, which connects the Kara Sea to the Laptev Sea, would be a violation of Soviet law. The United States cancelled the transit and protested the Soviet position that warships are required to receive permission prior to transiting the territorial sea [30].

To determine accurately the rights of the Soviet Union and of the maritime states wishing to transit these waters, the legal status of the various seas (Kara, Laptev, East Siberian, and the Chukchi) situated north of the Soviet Union and, in particular, of the straits which connect these seas must be determined. Although many lawyers have already addressed these issues, they should be reviewed in light of (1) the 1983 USSR state border law, and (2) a 1983 Soviet decree regarding the rules of sailing by foreign warships through its territorial sea and internal waters. Only brief comments will be made on these legal documents in this paper.

The 1983 Law on the USSR State Border does not clarify the status of the Arctic waters. Article 3 defines the USSR state border, unless otherwise stipulated by international treaty, as, "... (2) at sea along the outer limit of the territorial waters (territorial sea) of the USSR ...." Then in Article 6 the internal waters of the Soviet Union are defined, in part, as "the waters of gulfs, bays, inlets and estuaries, seas and straits historically belonging to the USSR." Which bodies of water may fit this historical regime? No specifics are given. Innocent passage through the territorial sea is provided for in Article 13; foreign warships are given the right of innocent passage "in accordance with the procedure laid down by the USSR Council of Ministers." No further explanation is given in this law about the passage of foreign vessels.

The innocent passage of foreign warships is slightly clarified in "The Rules of Sailing and Stopovers of Foreign Warships in the Territorial Waters (Territorial Sea) of the USSR, Internal Waters and Ports of the USSR," which was ratified by Council of Ministers' Decree No. 384 on 28 April 1983. In it are no explicit requirements for prior permission, but several provisions may restrict warship passage in the Arctic region. Article 5, titled "Pilotage and Ice-Breaking Escort," states,

> While sailing and staying in the territorial waters (territorial sea) of the USSR, in internal waters and ports of the USSR, foreign warships are obliged to use the services of piloting and ice-breaking support in those regions where piloting and ice-breaking services are compulsory.

Article 6, titled Restricted Regions of Navigation, states,

> In the territorial waters (territorial sea) of the USSR, in the internal waters and ports of the USSR, foreign warships may not enter areas in which by decision of competent Soviet authorities the sailing and stopover of foreign warships is prohibited. The establishment of such areas is announced in the Notice to Mariners.

The right of innocent passage is provided for in Article 8 which states,

> Foreign warships in the territorial waters (territorial sea) of the USSR enjoy the right of innocent passage provided they observe the statutes of current regulations, laws and rules of the USSR relating to the established procedures in the territorial waters (territorial sea) of the USSR and also to the international agreements of the USSR.

Finally, Article 12 -- Routes and Systems of Traffic Distribution -- provides that,

> Innocent passage of foreign warships through the territorial waters (territorial sea) of the USSR aimed at transiting territorial waters (territorial sea) of the USSR without entering internal waters and ports of the USSR is permitted on routes normally utilized for international navigation ...

Following the above articles, specific areas are cited: the Baltic Sea, Sea of Okhotsk, and the Sea of Japan. The Arctic Ocean seas and the Bering Sea are not listed, an omission which may be interpreted to mean that the Soviet Union does not view its Arctic seas as open to international navigation.

Although a prior permission clause is not included in the above Rules and Regulations, there remain several provisions and inferences to give maritime states cause for concern. For the time being the Soviet Union may intend not to be explicit on the status of the Arctic waters off its coast.

Norway

Norway presently claims a four-mile territorial sea and a 200-mile economic zone around its mainland. Two-hundred-mile fishery zones have been declared for Jan Mayen and Svalbard

[31]. Principal Arctic issues presently of concern to Norway are the overlapping maritime claims made by the Soviet Union to the east and Denmark in the west and the status of the waters and seabed around Svalbard.

In its Arctic region Norway has negotiated boundary agreements with Iceland and with the Soviet Union. In 1981 it signed an agreement with Iceland establishing a continental shelf boundary which is to coincide with their respective economic zone claims. On 28 May 1980, the two countries agreed to recognize Iceland's 200-mile economic zone in areas between Iceland and Jan Mayen where the distance between their baselines was less than 400 miles. Thus, Norway's economic zone is truncated to its south while Iceland is allowed to extend its zone a full 200 miles off its northeast coast. Included in the 1981 agreement, which entered into force 2 June 1982, are provisions for cooperation in a specified area, which straddles the boundary, in hydrocarbon exploration. The 1981 agreement essentially accepted the recommendations that a three-man Arbitral Commission had made earlier that year [32].

Norway and Denmark will have to delimit a boundary as the baselines between Greenland and the west coast of Jan Mayen are less than 400 miles distant. Effective June, 1980, Denmark established a 200-mile fishery zone around the entire island. Norway believes an equidistant line would be appropriate in this area; there are indications that Denmark's position is that its resource zone should extend further to the east beyond a median line. Apparently, Denmark presently is fishing in the area of overlap. In fact, in an interesting diplomatic development, in August of this year Iceland presented to Denmark a note which protested Danish fishing of capelin stock within Norway's Jan Mayen economic zone. No known negotiations between Norway and Denmark to delimit this area have yet occurred.

In 1958 Norway and the Soviet Union delimited their territorial sea and continental shelf boundary in the Varangerfjord [33]. The boundary terminated on the midpoint of a hypothetical closing line between specified points on each coast. At this point the boundary is only 13.5 miles seaward from their respective coastlines, thereby leaving a substantial area of the Barents Sea (about 60,000 square miles), now within their national jurisdiction, to be delimited. The Norwegian position is that the delimitation should be an equidistant line giving full effect to all Norwegian territory, including the islands of Svalbard. The Soviet Union, citing "special circumstances," argues against the use of the equidistant line. According to Ostreng, these "special circumstances," though not known in detail, would include the "sector claim, economic, demographic, security-political, and other aspects" of the region [34]. Several rounds of negotiations have been held since 1974, but with little progress toward resolution of the boundary. In 1977 an interim fisheries arrangement was reached with the creation of a "grey zone." This zone incorporates about 26,000 square miles, of which approximately 8,900 square miles is in undisputed Norwegian waters and about 1,200 square

miles lies east of the equidistant line in undisputed Soviet waters [35]. In this provisional agreement each state has the right to fish in the designated zone (see Map 4).

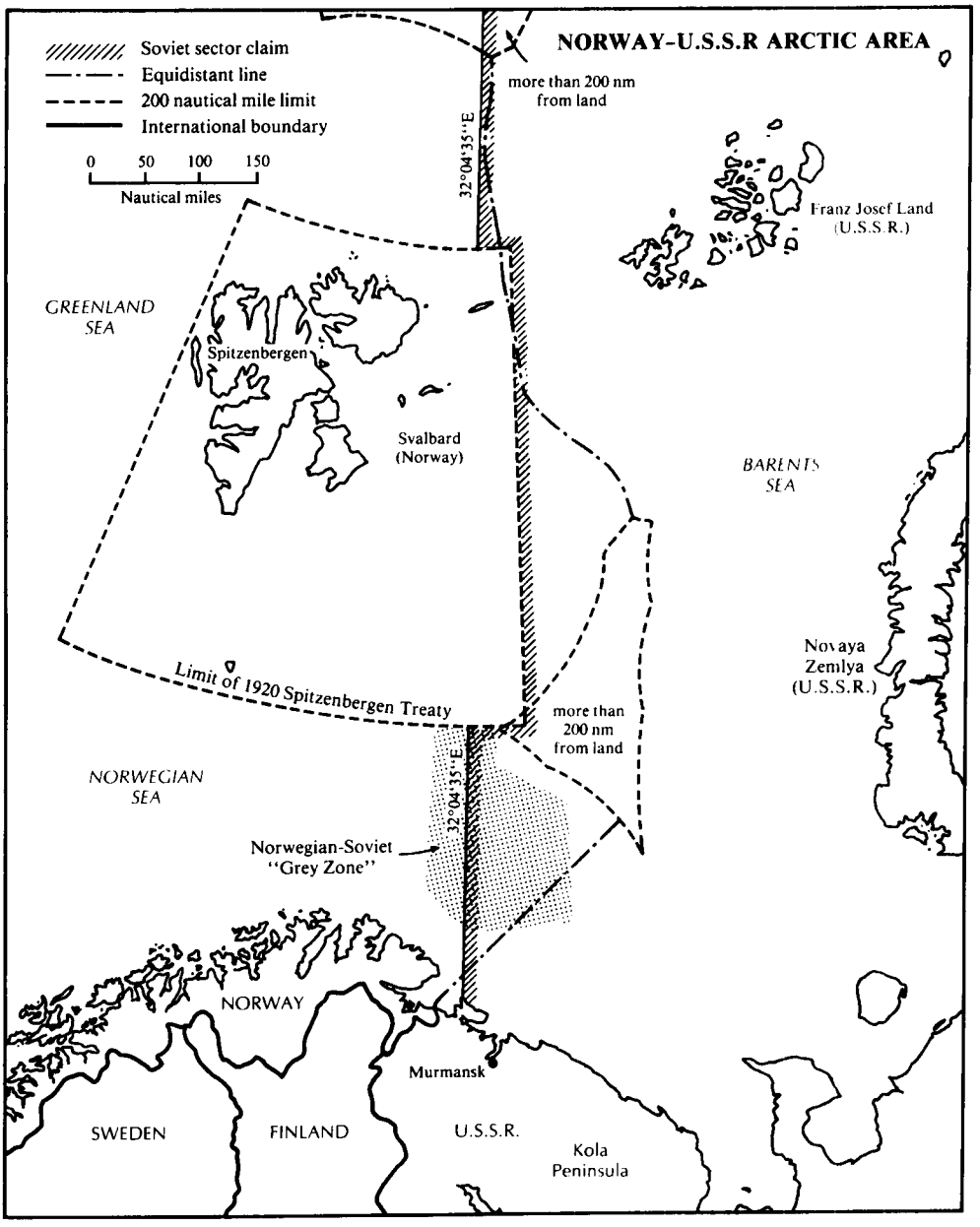
From this bilateral matter arise two issues which are of interest to the international community: the Soviet sector claim and the status of the waters and seabed surrounding Svalbard. Much has been said earlier on the Soviet sector claim. The application of these sector lines, however, is somewhat unclear. While it appears that, in the course of maritime boundary discussions with Norway, the Soviet Union is attempting to use these sectors to delimit maritime jurisdiction, Moscow has never publicly changed its position that the meridians cited in the 1926 decree were to be delimiters of anything but lands claimed by the Soviet Union.

Norway's sovereignty and legal regime over Svalbard is based on the 1920 Treaty Concerning the Archipelago of Spitzbergen [36]. Signatories were given certain rights, privileges, powers, and immunities subject to the provisions of the treaty [37]. Whereas the term "territorial waters" is used several times in Articles 2 and 3 of the treaty, there is no mention of any other type of maritime zone to which the treaty applies. Several authors have provided legal commentary on the use of the term "territorial waters" and its placement in the treaty as it applies to the rights of countries other than Norway to marine areas beyond the limits of the territorial waters [38]. In 1970 Norway proclaimed a territorial sea of four miles for Svalbard which, in Norway's view, delimited the treaty's seaward limits.

One outstanding issue relates to the status of the continental shelf around Svalbard. According to Ostreng, Norway's general position is that, under the 1958 Convention on the Continental Shelf, Norway's continental shelf extends from its mainland up to and north of Svalbard [39]. The question arises as to whether the continental shelf north of Svalbard is the natural prolongation of Norway proper, on which Svalbard sits, or whether Svalbard has its own shelf. If Svalbard has a continental shelf, does Norway have exclusive jurisdiction or are rights conveyed to the signatories of the treaty? According to Bernhardt, on several occasions Norway has said that Svalbard does not have a continental shelf, but that the shelf is the northward extension from the Scandinavian mainland [40]. By claiming the shelf in this way, Norway avoids the interpretative questions associated with the 1920 treaty. Norway's position on this question undoubtedly influences its strategy in its bilateral talks with the Soviet Union. As noted by Ostreng, a number of states, including the UK and the U.S., have reserved their rights on this questions of defining the continental shelf around Svalbard [41].

Denmark

Denmark's Arctic claims pertain to Greenland which, like other Danish coasts, has a three-mile territorial sea. By a 1980 Ordinance Copenhagen claimed a straight baseline system


NORWAY-U.S.S.R ARCTIC AREA
Soviet sector claim
Equidistant line
200 nautical mile limit
International boundary
0 50 100 150
Nautical miles
more than 200 nm from land
32°04'35"E
Franz Josef Land (U.S.S.R.)
GREENLAND SEA
Spitzenbergen
Svalbard (Norway)
BARENTS SEA
Novaya Zemlya (U.S.S.R.)
Limit of 1920 Spitzenbergen Treaty
more than 200 nm from land
NORWEGIAN SEA
Norwegian-Soviet "Grey Zone"
NORWAY
Murmansk
SWEDEN
FINLAND
U.S.S.R.
Kola Peninsula

MAP 4

around Greenland from which the territorial sea and fishery zone is to be measured [42]. In the same ordinance Denmark claimed a 200-mile fishery zone north of 75 degrees off Greenland's west coast and north of 67 degrees off the east coast.

The coordinates cited in the 1980 Ordinance regarding the fishery zone for the west coast coincide with the continental shelf boundary turning points agreed upon with Canada in their 1973 treaty. Off Greenland's east coast Denmark claims an equidistant line in areas where Greenland's baseline is less than 400 miles from Iceland and from Svalbard. Where Norway's Jan Mayen is less than 400 miles from Greenland, Denmark has stated that its "fishery jurisdiction will not for the present be exercised beyond the line which is everywhere equidistant ..." [43]. Iceland's current complaint that Denmark is fishing the capelin stock east of the equidistant line suggests that Denmark may not now respect the line in this area. Boundaries have yet to be determined to the east of Greenland with either Iceland or Norway (Jan Mayen and Svalbard). The delimitation of the Svalbard boundary may be complicated by the status of the continental shelf adjacent to Svalbard.

Canada

Canada's claims in the Arctic are most definitely influenced by the unique conditions found in this region. Perhaps the one event that crystallized Canada's claims and legal positions in the Arctic was the 1969 Northwest Passage transit by the icebreaker-tanker S.S. Manhattan. This shipping feat, implemented without prior permission of the Canadian government, was viewed by Ottawa as a challenge to its sovereign integrity in the Arctic. It also signaled the opening of a new era of activity in the Arctic, in which Canada wanted to play a substantial controlling role.

Following this 1969 passage through these Arctic waters, the Trudeau government sought to develop a northern policy which, through unilateral legislation, could control Canada's Arctic area. Canada's first action in 1970 was to extend its territorial sea from three to twelve miles. Broadening the territorial sea belt meant that there was no Northwest Passage route solely through high seas corridors; this action brought to a head the issue of the status of the Canadian straits. The United States, among other states, is firm in its position that straits in this area are international straits and that ships enjoy the rights accorded to them under international law. Although not presently a "hot item," this transit issue remains a major concern for the United States.

Also in 1970, Canada amended its Territorial Sea and Fishing Zones Act to adopt straight baselines for the measurement of the territorial sea and fishing limits along the coast of Labrador as well as along the coasts of Nova Scotia, British Columbia, and Newfoundland. Next came the Canadian Shipping Act of 1970 which placed strict anti-pollution standards on ships operating in the waters enclosed by the Fisheries Act amendment. With regard to the Arctic region the

most important and controversial Canadian action came with the passage, in 1970, of the Arctic Waters Pollution Prevention Act. This legislation asserts that the Canadian government has the right to protect its Arctic waters north of the 60 degree parallel of north latitude for a distance of 100 miles from the coast. Within the law there are provisions related to ship construction, waste disposal, and navigational standards. As was true of Ottawa's assertion about the status of the Arctic waters and straits, the United States has severe reservations about this piece of legislation as well [44].

Implicit in the various Canadian claims in the Arctic is a sector claim similar to that made by the Soviet Union. In fact, it is believed that it was a Canadian official in 1907 who first presented the theory. Although Ottawa has never officially proclaimed the sectors, there are several indications that the Canadian government does not totally disavow the claim. One manifestation of Canada's sector claim is the publication of official charts on which the sectors are depicted. An example is Canadian chart No. 7000 titled Arctic Archipelago [45]. On it symbols, identical to the international boundary symbol, are used along the 60 degree west and the 141 degree west meridians of longitude north to the North Pole. These meridians have been used to delimit various zones cited in Canadian legislation, including the Arctic Waters Pollution Prevention Act. And, in the west, the 141st meridian, along which much of the Alaska-Yukon land boundary runs, is the basis of the Canadian maritime boundary claim with the United States. In the east the present Canadian continental shelf boundary with Denmark terminates at the 82 degree 13 minute parallel; any northern extension is likely to be based on the equidistant method.

CONCLUSION

In summary, it is evident that the north polar region exhibits unique geographical characteristics, characteristics common to a frontier. Nothing in the Arctic is that well known or understood, the area has been utilized minimally, yet the prospects are that in the coming years man's presence here will expand. This trend will likely create some conflict of interests between the users: the explorers, the exploiters, the shippers -- and those who desire to maintain control over the activities: the permanent residents, the environmentalists. It is almost certain that unilateral actions by any interested group or government will only serve to complicate matters. Given the fragile nature of the environment, man cannot afford to have a major accident here. At the same time, there are international legal rights that all states should enjoy in certain maritime areas. Thus, these interests must be balanced and agreed upon through discussions at the bilateral and multilateral levels.

NOTES

1. Webster's Seventh New Collegiate Dictionary, 1965, p. 336.
2. J.R.V. Prescott, Boundaries and Frontiers, London: Croom Helm, 1978, p. 33.
3. Senate of Canada. Marching to the Beat of the Same Drum. Report of the Special Committee on the Northern Pipeline, March 1983, p. 1.
4. "Alaska's Oil Dream Clouded by Expected Drop in Output", New York Times, 17 March 1983.
5. M.E. Britton, "Special Problems of the Arctic Environment." Canadian-U.S. Maritime Problems. Law of the Sea Institute Workshop, June 1971, Kingston, Rhode Island: Law of the Sea Institute, 1972, p. 14.
6. Central Intelligence Agency, Polar Regions Atlas. 1978. Hereinafter, referred to as Polar Atlas.
7. Ibid, p. 12.
8. Ibid., p. 14.
9. Ibid., p. 15.
10. For a general discussion of Soviet geography see, Paul E. Lydolph, Geography of the USSR Elkhart Lake, Wisconsin: Misty Valley Publishing, 1979.
11. Senate of Canada, p. 16.
12. Ibid., p. 18.
13. Ibid., pp. 26-28.
14. U.S. Geological Survey, Arctic Summary Report, Open-File Report 81-621, 1981, p. 9.
15. Ibid., p. 49.
16. National Petroleum Council, U.S. Arctic Oil & Gas. December 1981, p. 13.
17. For a detailed discussion on the technical aspects of boundaries see, Robert W. Smith, "A Geographical Primer to Maritime Boundary-Making," Ocean Development and International Law Journal. Vol. 12, No. 1/2, pp. 1-22. Robert D. Hodgson and E. John Cooper, "The Technical Delimitation of a Modern Equidistant Boundary", Ocean Development and International Law Journal. Vol. 3, No. 4, pp. 361-388.
18. For the text of the treaty and a brief analysis see, United States Department of State, Limits in the Seas, No. 72, "Continental Shelf Boundary: Canada-Greenland," 4 August 1976.
19. Articles III and IV are as follows:

ARTICLE III

In view of the inadequacies of existing hydrographic charts for certain areas and failing a precise determination of the low-water line in all sector along the coast of Greenland and the eastern coasts of the Canadian Arctic Islands, neither Party shall issue licenses for exploitation of mineral

resources in areas bordering the dividing line without the prior agreement of the other Party as to the exact determination of the geographic coordinates of points of that part of the dividing line bordering upon the areas in question.

ARTICLE IV

1. The Parties undertake to cooperate and to exchange all relevant data and measurements with a view to obtaining and improving the hydrographic and geodetic knowledge necessary for more precise charting and mapping of the region covered by this Agreement. When knowledge is obtained enabling the Parties to estimate the datum shift between the 1927 North American Datum and the Qornoq Datum, the geographic coordinates of points listed in Article II shall be adjusted and relisted in relation to both the 1927 North American Datum and the Qornoq Datum.
2. If new surveys or resulting charts or maps should indicate that the dividing line requires adjustment, the Parties agree that an adjustment will be carried out on the basis of the same principles as those used in determining the dividing line, and such adjustment shall be provided for in a Protocol to this Agreement.

20. All references to miles in this section are to nautical miles. One nautical mile equals 1,852 meters.
21. President Reagan's Proclamation of the United State's Exclusive Economic Zone, 10 March 1983.
22. Calculations made by Mr. Charles E. Harrington, National Ocean Service, U.S. Department of Commerce, for an internal working document, March 1984.
23. For a general discussion of United States maritime boundaries see, Robert W. Smith, "The Maritime Boundaries of the United States," The Geographical Review. Vol. 71, No. 4, pp. 395-410. Mark Feldman and David Colson, "The Maritime Boundaries of the United States," American Journal of International Law, Vol. 75:4, pp. 729-764.
24. Donat Pharand, a Canadian lawyer, does not believe that it was "the intention of the parties to extend the boundary beyond the coast." "The Implications of Changes in the Law of the Sea for the 'North American' Arctic Ocean," in John K. Gamble, ed., Law of the Sea: Neglected Issues, Proceedings of the Law of the Sea Institute Twelfth Annual Conference, Honolulu: Law of the Sea Institute, 1979, p. 183.
25. William Butler, The Law of Soviet Territorial Waters. New York: Frederick Praeger, 1967, p. 29. See also Butler's The Soviet Union and the Law of the Sea. Baltimore: The Johns Hopkins Press, 1971.

26. USSR Declaration 4604 declares that a Council of Ministers decree of 7 February 1984 approved a list of geographic coordinates which define straight baselines off the coasts of the Pacific Ocean, the Sea of Japan, the Sea of Okhotsk, and the Bering Sea. On 15 January 1985 after this paper was presented, the Soviet Union issued a decree claiming straight baselines for its coastline along the Arctic Ocean, Black Sea, and Baltic Sea.
27. In particular, see W. Lakhtine, "Rights over the Arctic," American Journal of International Law. Vol. 24, October 1930, pp. 703-717.
28. William Butler, Northeast Arctic Passage. The Netherlands: Sijthoff & Noordhoof, 1978, p. 73.
29. Ibid., p. 77.
30. Ibid.
31. The zone established around Svalbard is a non-discriminatory fishery protection zone. It is not clear whether or not an economic zone has been declared for Jan Mayen. A 200-mile fishery zone was declared in May 1980 although the continental shelf agreement between Iceland and Norway references Jan Mayen's economic zone.
32. Report and Recommendations to the Governments of Iceland and Norway of the Conciliation Commission on the Continental Area Between Iceland and Jan Mayen, Washington, D.C., June 1981. The Commission was comprised of the Honorable Elliot L. Richardson (Chairman), H.E. Hans G. Andersen (Iceland), and H.E. Jens Evensen (Norway).
33. See United States Department of State, Limits in the Seas No. 17. "Continental Shelf Boundary: Norway-Soviet Union," 27 May 1970.
34. Willy Ostreng, "The Continental Shelf - Issues in the 'Eastern' Arctic Ocean. Implications of UNCLOS III, With Special Reference to the Informal Composite Negotiating Text (ICNT)", in John K. Gamble (ed) Law of Sea: Neglected Issues. Proceedings of Law of the Sea Institute Twelfth Annual Conference, Honolulu: Law of the Sea Institute, 1979, p. 168. See also, Kim Traavik and Willy Ostreng, "Security and Ocean Law. Norway and the Soviet Union in the Barents Sea," Ocean Development and International Law Journal. Vol. 4, No. 4, 1977, pp. 343-367.
35. For a general description of these talks see, Ted L. McDorman and Susan J. Rolston, "Maritime Boundary Delimitation in the Arctic Region," in Douglas M. Johnston and Phillip Saunders (eds.) Maritime Boundary Delimitation in Selected Regions. (Date of publication unknown).
36. The name Spitzbergen, or Spitsbergen, actually is the name of only one of the islands in the group; Svalbard is the name of all the islands and rocks within the treaty limits.
37. The original signators were: Norway, United States, United Kingdom, Canada, Australia, New Zealand, South Africa, Denmark, India, France, Italy, Japan, the Netherlands, and Sweden. The Soviet Union entered into the Agreement at a later date.

38. For a discussion of the treaty see, Ostreng, "The Continental Shelf-Issues in the 'Eastern Arctic Ocean ..." and J. Peter Bernhardt, "Spitzbergen: Jurisdictional Friction Over Unexploited Oil Reserves", California Western International Law Journal. Vol. 4, 1973, pp. 61-120.
39. Ostreng, p. 173.
40. Bernhardt, p. 86.
41. Ostreng, p. 173.
42. Denmark's Ordinance Regarding the Fishery Zone off Greenland, 14 May 1980; entered into force, 1 June 1980.
43. Ibid., Paragraphs 2-4.
44. Canada, in October, 1985 stated its intentions to place Arctic straight baselines in force on 1 January 1986.
45. Canadian chart No. 7000, Arctic Archipelago. 1:5,000,000, March 1982. The United States has made a protest to the Canadian government concerning the depiction of the sector claim as well as the use of the international boundary symbol in the Dixon Entrance.

POLITICAL AND BOUNDARY ISSUES AFFECTING ARCTIC ENERGY RESOURCES

David A. Colson
Assistant Legal Adviser for Oceans,
International and Scientific Affairs,
Office of the Legal Adviser
Department of State

I welcome the opportunity to participate in this Panel on Arctic Energy Resources. I have been asked to discuss some of the political and boundary issues in the Arctic which touch upon energy resource development.

As I am sure you will appreciate, this is a sensitive subject. Some of the issues are currently under negotiation, and it would not be appropriate for me to comment on those negotiations or on the views of other governments other than to say what is already on the public record. In addition, I must add the normal caveat that the views I am about to express are my own and do not necessarily represent those of the United States Government.

Dr. Smith has described for you the physical and political geography of the Arctic. He has stated that five states -- the United States, Canada, Denmark, Norway, and the Soviet Union -- rim the Arctic. For the purposes of my remarks, the Arctic I will address is that area generally north of the continental land masses. Accordingly, it is striking, but perhaps not unusual, that the legal and political issues between these five states in respect of their relationships in the Arctic relate in large part to matters of ocean use.

The central point of my comments is that while the Arctic presents man with new challenges, these challenges are largely technological in nature. The legal and political regime of the Arctic is generally well established, following traditional patterns for oceans use. While there may be a few unique political and legal concepts associated with the Arctic, either these concepts are not generally accepted or they do not significantly alter the traditional ocean regime. Also, while there may be differences or disputes between states concerning their activities in the Arctic arising under traditional ocean concepts, the nature of those differences or disputes does not differ significantly from the disputes or differences those states may have in other regions.

My discussion today will be divided into two parts. In Part I, I will discuss the general ocean regime in the Arctic. In Part II, I will discuss two arguable exceptions to the general regime, namely the sector theory and Article 234 of the 1982 LOS Convention.

PART I

The five states of the Arctic all have been active participants in the three United Nations Conferences on the Law of the Sea. While their positions on each of the pertinent concepts and issues do not necessarily fully correspond, there is similarity in their basic viewpoints. All five states are parties -- not merely signatories -- parties to the 1958 Convention on the Continental Shelf. Denmark, the United States, and the Soviet Union are parties to the 1958 Territorial Sea and the Contiguous Zone Convention and the 1958 High Seas Convention. Canada signed these two conventions, which Norway declined to do.

More recently, we have seen even greater correspondence in general legal theory among the five states. All five states actively participated in the work of the Third United Nations Conference on the Law of the Sea. All but the United States have signed the 1982 Convention on the Law of the Sea. While the United States has not signed the 1982 Convention, the President's U.S. Oceans Policy Statement of 10 March 1983 makes it clear that in respect of the provisions relating to traditional uses of the oceans, the United States will respect the rights of others as set forth in the 1982 Convention so long as the rights of the United States also are respected. Thus, as a starting point, one may look to the 1982 Convention as reflecting the general legal principles which will guide the actions of these five states in the Arctic.

Accordingly, each state may claim no more than a twelve-nautical-mile territorial sea, measured from baselines drawn in accordance with international law. Each state may claim a 200-nautical-mile exclusive economic zone, wherein it has sovereign rights for the purpose of exploring and exploiting the natural resources of the zone. And each state is entitled to its continental shelf, which may extend beyond the 200-nautical-mile limit in some cases. Likewise, each state, like all other states, may exercise the freedoms of navigation and overflight in all maritime areas beyond the territorial sea. In the territorial sea, all states may engage in innocent passage and in straits used for international navigation, all states may engage in transit passage. Where the 200-nautical-mile zones or continental shelves overlap, maritime boundaries will be called for.

I would hope that the foregoing paragraph would not be controversial in the legal advisers' offices of the foreign ministries of the five states concerned. It describes a general oceans regime -- the same regime which is generally applicable in all parts of the world. It is a sign of hope for the future of the Arctic that all five of these states are prepared to see the same general regimes applied in the Arctic.

Not surprisingly, if one looks at the specific legal issues associated with each regime, one will see that there are differences between the states concerned as to the proper application of the legal principles associated with each general

regime. In some cases, these differences reflect no more than general differences the states may have on law of the sea issues. In other cases, these differences arise due to unique characteristics of the Arctic. Sometimes the differences reflect the maintenance of positions of principle asserted prior to negotiation to resolve specific problems. In other cases, the differences reflect interpretation of the law in light of particular national interests or perspectives.

Let me illustrate the nature and scope of these differences by addressing nine different law of the sea regimes: baselines, archipelagoes, the territorial sea, innocent passage, transit passage, fisheries jurisdiction, continental shelf jurisdiction, jurisdiction in respect of marine pollution, and maritime boundaries. For the most part the examples that I will cite reflect United States and Canadian practice. This is because I am more familiar with that practice, not because the issues do not arise in relation to the other states concerned.

Baselines

The measurement of the extent of maritime jurisdiction begins with the baseline from which the breadth of the territorial sea is measured. The general rule is that the low water line along the coast is the baseline. In some regions, which may be present in some Arctic locales, straight baselines, as described by Article 7 of the 1982 Convention, may be drawn.

There are two basic baseline issues in the Arctic. Dr. Smith has described one of them. As a matter of fact, despite satellites, the expenditure of large sums of money, and good faith efforts, the determination of baselines in the Arctic remains difficult for lack of good information. This is principally due to the absence of adequate charts of the area. The baseline drawn on a chart by a foreign ministry lawyer in the capital will not make much sense to a navigator finding his way in the Arctic if the chart was wrong in the first place. But this is a problem which will be resolved with time. As man's activities in the Arctic increase, priority will be given to a more accurate charting of the Arctic coast.

The other problem, of a more fundamental legal character, relates to exceptions to the normal baseline rule: one exception relates to the regime of historic bays, another relates to a less well-defined regime of historic waters. The reason that baselines are important is that they delimit internal waters, in which the international community's rights are analogous to those in land territory, from the territorial sea, wherein the international community begins to have significant rights to the use of the ocean. States seeking to detract from the rights of the international community will occasionally do so by avoiding recognized baseline practice and making historic bay or other historic waters claims.

The 1982 LOS Convention recognizes that there is such a thing as an historic bay (Article 10(6)), and, as a matter of international practice, there is some understanding about the bays to which such a regime might apply. The international law

and practice is far less clear with respect to waters, other than bays, which are claimed as historic. Such waters are not mentioned in the LOS Convention. Nonetheless, there is a tendency at times, especially in the Soviet Union, to think of Arctic waters off their coast as "historic" and thus, in law of the sea terms, to give them the character of internal waters where the international community has no rights. Because of the restriction upon navigational rights and freedoms such a regime implies, the United States objects to any implication that Arctic waters have a degree of historicity that might make them the subject of an internal waters regime.

Archipelagoes

In geographic terms, there are several archipelagoes in the Arctic Ocean, the most notable possibly being the large Canadian archipelago north of this continent. But it was common ground at the Third U.N. Law of the Sea Conference that the archipelagic regime, set out in Part IV of the Convention, applies only to an archipelagic state -- defined for purposes of the Convention as a state constituted wholly by one or more archipelagoes and perhaps other islands. In other words, mainland states may not take advantage of the archipelagic provisions of the LOS Convention.

Accordingly, if a state wishes to draw straight baselines in the Arctic, it may not do so under Part IV of the Convention. It must, instead, draw them in accordance with Article 7. One requirement of that article and the International Court of Justice's teaching on this subject is that the straight baselines may not depart to any appreciable extent from the general direction of the coast. Straight baselines may connect islands only when they are "fringing" islands along the coast, aligned in its general direction. This would seem to preclude straight baselines from being drawn, for instance, from one side of the Canadian mainland, up and around the Canadian islands to the other side of the Canadian mainland, having the effect of making all the water inside such lines internal waters. Rather, in appropriate situations straight baselines could be drawn along the mainland coast and along the coast of the islands. This would make the waters landward of those baselines internal, but the waters seaward would be subject to regimes of innocent passage, transit passage, or the freedom of navigation and overflight, as appropriate.

Territorial Sea

No state in the Arctic claims a territorial sea greater than twelve nautical miles, the maximum breadth provided for by the LOS Convention. The President's Oceans Policy Statement of 10 March 1983 says that the United States will recognize such claims so long as they take account of the international rights of other states. With this movement away from its traditional three-nautical-mile position, the United States no longer disputes in principle the breadth of the territorial sea with the other states of the region.

Innocent Passage

In general, one would expect that all Arctic states would agree that the regime of innocent passage applies in the territorial sea in the Arctic. But as a matter of practice, some Arctic states have asserted substantial restrictions upon the right of all states to innocent passage in the territorial sea in the region. The legal reasoning is unclear, but it would seem that a concern for internal security prompts the Soviet Union to take very restrictive measures concerning passage off its Arctic coast. The recent incident in which the Soviet Union stopped and detained the U.S. vessel Freida K and its crew is an illustration. Likewise, Canada asserts broad jurisdiction for the coastal state to control passage, because of the fragile Arctic environment. It would seem to be Canada's position that the movement of an oil tanker through its territorial sea in the Arctic is inherently non-innocent.

The United States does not share these legal perspectives. The navigational rights and freedoms traditionally enjoyed by all states in and over the oceans are applicable in Arctic waters as they are elsewhere around the globe. Arbitrary interference with those rights and freedoms, whether in the name of security or in that of environmental protection, cannot be accepted. Nevertheless, coastal state environmental concerns can be reconciled with navigational interests, and it is clear that some practical way can be found to protect navigational rights as commercial maritime transportation systems become the order of the day in the Arctic.

Transit Passage

Likewise, the same may be said for the regime of transit passage. The United States takes the view that the transit regime applies to all straits used for international navigation in the Arctic, including the famed Northwest Passage, through which the United States oil tanker Manhattan voyaged in the late 1960s. My remarks with respect to the Soviet Union and innocent passage would apply equally to the regime of transit passage, and I will not belabor the issue here. Canada also would have a different view from the United States -- likely taking the position that there are no straits used for international navigation in its Arctic waters.

Here we have a major legal difference. But let us look at it from a practical perspective. The right of transit passage has great strategic importance for the United States which cannot be compromised. But it is not in this context that there is a tension between the maritime mobility concerns of the United States and the environmental interests of Canada. Rather, that tension would occur in the commercial navigation context, in which context exercise of passage rights in Arctic waters will require substantial coordination with the coastal state -- if only to assure availability of hydrographic, meteorological and icebreaking services. In effecting this coordination coastal and maritime states can reconcile their respective interests. Indeed, one may predict that there is

never going to be a major maritime system using Canadian straits in the Arctic unless the regime in those straits is satisfactory to all concerned, particularly Canada and the United States. Navigational rights can be preserved without jeopardizing legitimate coastal state interests.

Fisheries

Under international law, all states may claim fisheries jurisdiction out to 200 nautical miles from the coast. Depending on the locale, the waters of the Arctic may or may not be rich in fisheries resources. The nature of the jurisdiction claimed in the Arctic, however, has not proven to be different from that claimed elsewhere.

Continental Shelf

As noted earlier, all the Arctic states are parties to the 1958 Convention on the Continental Shelf, and each state has extensive shelf areas in the Arctic which it looks to as a source of significant hydrocarbon potential. The rights to the resources of the continental shelf are exclusive, residing solely in the coastal state.

One issue that remains to be determined is the outer limits of the continental shelf. This is not a problem unique to the Arctic. In many parts of the world, states may be reluctant to identify the outer limits of their continental shelves until further scientific exploration is done of their coastal areas.

The United States Outer Continental Shelf Lands Act Amendments of 1978 define "outer continental shelf" as "all submerged lands lying seaward and outside of the area of lands beneath navigable waters ... and of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control." The United States regards this definition as being consistent with both Article I of the 1958 Convention and Article 76 of the 1982 LOS Convention, both of which the United States also regards as being consistent. The President's Proclamation of the United States Exclusive Economic Zone and accompanying Oceans Policy Statement of 10 March 1983 confirm existing United States continental shelf jurisdiction out to and beyond 200 nautical miles. The President's Oceans Policy Statement also makes clear that the United States will respect maritime claims of other states that are consistent with international law as reflected in the U.N. Convention on the Law of the Sea (e.g., the continental shelf definition contained in Article 76) if the U.S. rights and freedoms in such areas are respected by the coastal state. While no precise geographic description of the outer limits of the continental shelf has been adopted by any of the states in the Arctic, there is no doubt that, under whatever criteria are applied, the continental shelves of several states will extend beyond 200 nautical miles from the coast in some instances. For the United states the shelf in the Arctic's Beaufort Sea will include the Chukchi Plateau north of Alaska.

Pollution Jurisdiction

We have heard several speakers refer to the fragile Arctic environment. Canada, in particular, has been especially sensitive to protecting this environment. To that end, Canada passed in 1970 the Arctic Waters Pollution Prevention Act, to have application to a distance 100 nautical miles off the Canadian Arctic coast. Passed in 1970, in response to the 1969 Northwest Passage voyage of the oil tanker S.S. Manhattan, the act (1) established a 100-nautical-mile pollution control zone around the Canadian Arctic coast; (2) prohibited the disposal of "waste" in that zone; and (3) established strict construction, manning, navigation and related standards, as well as financial responsibility provisions for all vessels operating within the 100-nautical-mile zone. At the same time, Canada extended its territorial sea to twelve nautical miles, thus extending Canadian territorial sea jurisdiction over the entire breadth of certain portions of the Northwest Passage.

The United States protested immediately and has raised this issue with Canada on subsequent occasions. The United States considers that traditional rights and freedoms apply in the waters of the Northwest Passage for vessels of all states. Canada takes a more restrictive view, even suggesting on occasion that by virtue of the possible pollution hazard, mere transit of these waters by oil tankers would not even be considered innocent passage.

That having been said, it is clear that the environment of the Arctic requires special protection. The United States believes that through bilateral and regional agreements the environment can be protected without calling into question fundamental navigational freedoms.

Boundaries

There are a handful of maritime boundaries in the Arctic -- that in the Beaufort Sea between the United States and Canada, that between Canada and Greenland, between Greenland and Norway's Jan Mayen Island, between Greenland and Svalbard, between Iceland and Jan Mayen, between Norway and the Soviet Union, and between the Soviet Union and the United States.

Not unlike states making boundary claims in other regions of the world, these five states make boundary claims in the Arctic consistent with their interests and their particular views of international law, including agreements in force between them. Each government has, or no doubt can come up with, a detailed legal rationale in support of its position. Only the Soviet Union would apply similar methods to both of its boundaries, looking for a boundary following a line of longitude in both cases. Norway seeks boundaries based upon strict application of the equidistance method with the Soviet Union and Denmark, but would allow areas beyond the equidistant line to go to Iceland. Denmark uses equidistance with Canada, but would seek areas beyond the equidistance line in the vicinity of Jan Mayen. The United States and Canada each use equidistance in one boundary and a line of longitude in the other: the U.S.

uses a line of longitude as part of its boundary with the Soviet Union and an equidistance line with Canada, and Canada uses a line of longitude with the United States and an equidistance line with Denmark.

Leaving aside the case of a boundary already established pursuant to agreement, the assertion that a line of longitude, or an equidistant line, reflects an equitable boundary is not unique to the Arctic. Many states in other regions view the application of the equidistance method as a means of achieving an equitable boundary. Moreover, lines of latitude and longitude, or other lines generally perpendicular to the general direction of the coast, are asserted to be equitable boundaries in other cases.

Thus, as in other parts of the world, some boundaries are resolved, but most are not. In some boundary areas of the Arctic, the size of the area in dispute is substantial. Dr. Smith has outlined these differences and I need not go into them further. I only note, again, that the positions concerning the respective rights and jurisdictions between states arise out of traditional legal principles, not out of considerations peculiar to the Arctic.

PART II

Now let us look to the two possible exceptions to the traditional ocean regimes: the sector theory and Article 234 of the 1982 LOS Convention.

The Sector Theory

The sector theory is interesting and has to be examined carefully. Depending on its meaning, and in the best case analysis, we may find that perhaps its bark is worse that its bite. However, it is a theory that in the worst case would fully overturn the traditional law of the sea in the Arctic.

The Soviet Union and Canada are the principal theoreticians of the sector theory. In the early twentieth century, the theory was a legal argument put forward to claim land territory between two meridians when at the same time it was not possible to effectively occupy such land, as traditional law would have required. As time passed, the idea has been put forward that the meridians which mark these sector claims do more, enclosing the waters within the claim as something akin to internal waters or territorial sea. If that were to be the case, all the area north of Canada and the Soviet Union to the North Pole would be closed to the exercise of traditional maritime rights by other states.

Neither Canada nor the Soviet Union has ever gone so far in any official sense, although writers in both countries have propounded such views. One also notes that both states maintain boundary positions consistent with their respective sector claims and that both states take a restrictive view toward navigation off their Arctic coasts.

For instance, the 26 April 1926 Decree of the Presidium of the Central Executive Committee of the USSR provided that "all lands and islands, both discovered and which may be discovered in the future ... located in the Northern Arctic Ocean north of the shores of the [USSR] up to the North Pole between [delineated meridians] are proclaimed to be the territory of the USSR." The easterly meridian of the decree follows the Soviet depiction of the 1867 Convention Line, which the USSR apparently extends to the North Pole. While Soviet scholars have put forward arguments that the waters enclosed by the sector lines are the "territory" of the USSR, the Soviet Government has never made such a claim. The USSR, however, does take a very territorialist approach toward the navigation of foreign flag vessels in waters off its northern coast. We understand its position in this regard generally to be based on an argument that these waters constitute historic waters in which traditional navigation has not been exercised and in which there are neither rights of transit or innocent passage, nor freedom of navigation. The United States, of course, as I mentioned earlier, does not concur with the Soviet position.

Canada, and its writers, have been a bit more ambiguous with respect to its view of the sector theory. Canadian officials and writers have given a variety of opinions on the subject, not altogether consistent. But no Canadian government has formally espoused the theory in a territorialist sense, and in 1969, then Prime Minister Trudeau stated the view of his government that the sector theory does not apply to water and ice. There is no question, however, that Canada claims all islands falling within its sector and that it has advocated a claim to a maritime boundary on its west at the 141 degree west longitude meridian. Moreover, to its east, the northernmost point of the boundary with Greenland stops within Davis Strait before an appropriate sector line would extend northward. These actions, coupled with a Canadian outer continental shelf program that unilaterally used the 141st meridian and the application by Canadian law of the Arctic Waters Pollution Prevention Act to the 141st meridian, gives one pause when one asks whether Canada does in fact espouse a sector theory that has at least some serious negative implications for navigation.

In considering the sector theory, there is one additional point that I would like to make. The most negative feature of the sector theory is the restrictive nature of the navigation regime that some would argue is applicable within the sector. But that assertion of jurisdiction is independent of the lines which define the sector. Those lines may be straight, crooked, zigzag or curved. States act restrictively in the Arctic if that is how they define their national interest, whether or not meridians mark their maritime boundaries. Moreover, just because a state believes that a maritime boundary should follow a meridian of longitude does not mean that that state claims the waters within the boundary as internal, nor that it asserts a restrictive navigation regime off its coast.

Thus, as a matter of practice we see some curious things about the sector theory:

* The governments espousing such a theory have never argued that the sector claim applies to maritime space in a territorial sense.
* No international law of the sea convention has ever given any credence to the sector theory in any form. Traditional law of the sea rules apply in the Arctic.
* The states which have sector claims to land territory have asserted restrictive navigation regimes off their Arctic coasts and have maintained maritime boundary claims consistent with their sector claims but have sought to justify these claims under more traditional principles of international law.

Accordingly, it is not the sector claim itself which has been the basis for Arctic jurisdictional claims; those claims have been made notwithstanding the sector claim, and fall far short of what might be claimed under a sector theory. In my view, the sector theory is really only a rationalization to justify an already identified end.

Article 234

One question that the five Arctic states must face concerns the proper meaning of Article 234 of the Law of the Sea Convention. As noted, four of the states are signatories to the Convention, and the United States has indicated its willingness to recognize the coastal state jurisdiction set out in the Convention, which would include that in Article 234, so long as U.S. rights are also recognized. Article 234, found in the pollution part of the LOS text, does provide for special coastal state rights in ice-covered areas. The article states:

> Coastal states have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance. Such laws and regulations shall have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence.

This article resulted from intensive negotiations involving the U.S., Canada and the Soviet Union at the Conference. It has been given different interpretations by different states. The United States believes the Canadian Arctic Waters Pollution

Prevention Act asserts a jurisdiction to control navigation not entirely consistent with the 1982 LOS Convention provision. Canada obviously disagrees. The United States takes the article as little more than a recognition that some special pollution rules may be called for in the Arctic, consistent with general navigational rights and freedoms. The United States would never have negotiated a provision that negatively affects its general navigation and overflight interests, in particular those associated with ships and aircraft entitled to sovereign immunity. Thus, Article 236 of the Convention states specifically that the Convention provisions relating to the protection and preservation of the marine environment, which include Article 234, do not apply to vessels entitled to sovereign immunity.

But what can be said of Article 234 is that it is the exception that proves the rule. This is the only article in the Convention which specifically recognizes some special forms of pollution jurisdiction for coastal states in the Arctic. Its negotiating history, placement in the Convention, and textual content make clear that whatever the special jurisdiction that states may exercise in the Arctic in accordance with this article, they do not depart from the basic principles associated with traditional rules. Article 234 defines the sole exception to the application of traditional law of the sea doctrine in the Arctic. For that reason, sweeping territorial and historic waters claims should once and for all be relegated to the dusty bookshelf of forgotten theory.

In conclusion, the remote, sensitive, and sometimes harsh Arctic environment leaves little doubt that some special recognition of the unique problems of that area will be called for in the application of the law of the sea as states accelerate their operations in the area. But we believe that we start from traditional law of the sea principles.

Thank you.

ENGINEERING ECONOMICS OF ALASKAN OIL EXPLORATION

Randy Heintz
Director of Engineering Evaluation
Explorations Operations Group
ARCO Alaska, Inc.

First, I would like to say that I feel privileged to address a group of this prestige. To introduce myself, I should tell you a little about my personal background. I have worked as a petroleum engineer for fifteen years. My current position is Director of Engineering Evaluation for ARCO Alaska, Inc. In that job my responsibility is primarily the economic evaluation of exploration prospects throughout the State of Alaska. ARCO Alaska Inc. is the operator of the eastern half of the Prudhoe Bay field and is one of the pioneers in Alaskan exploration and production.

My topic today is the engineering economics of Alaskan oil exploration. I do not plan to cover the regulatory issues nor the environmental conservation issues in detail. My goal instead is to pass on to you a feeling for the operating conditions in the Arctic environment and to describe the factors to consider before risking money on Alaskan oil exploration.

Before discussing Alaska exploration, I would like to mention some of the givens that are just facts of life for Alaska. Dr. Smith alluded to Alaska and the Arctic as a "frontier" but he said that "frontier" has different meanings. I would certainly agree with that assessment. To an oil explorer, "frontier" means that the area is new, unexplored. Because little data is available on it, a frontier area represents considerable risk. Whereas a 15 percent chance of exploratory success may be an average value for the oil industry in the rest of the United States, for a frontier area such as Alaska, with so little data and so few wells, the success rate may be considerably lower. The remoteness, the logistics problems, and the sensitive nature of the Alaskan frontier environment dictate high costs. Another cost factor is the long lead time before a field can produce. In addition, the exploratory drilling season is restricted by ice coverage or by lease stipulations which reflect environmental concerns. Another difference between Alaska and the lower forty-eight states is the lack of incentive for gas exploration. Since over twenty trillion cubic feet of gas in the Prudhoe Bay field have yet to be produced, no active gas exploration is in progress in Alaska.

Five areas of uncertainty must be considered in an economic evaluation of an exploration prospect: geological, financial, political, environmental, and technological. These factors will be discussed separately, although many are dependent on each other.

In the initial exploration stage, geologic uncertainty -- the basic question of the existence of oil and our ability to

find it -- is the most critical factor. This uncertainty can be subdivided into four basic questions. Was there a source of oil and did the oil migrate at the right time to get to the current reservoir? Is there a reservoir formation of sufficient quality to hold the oil? Is there a trap to keep the oil in the reservoir? Can we determine where to drill to find that oil reservoir? We minimize these uncertainties by obtaining as much data as possible. In the offshore area, seismic data is acquired and COST wells are drilled. COST wells are Continental Offshore Stratigraphic Test wells drilled off a structure before a lease sale to gather information about the rocks.

Some statistics from recently-explored Alaskan basins will illustrate the high geologic risk. In the Gulf of Alaska, about ten exploratory wells have been drilled with no success, despite high industry interest in the area during leasing. In fact, a recent federal lease sale in the Gulf of Alaska has been delayed by low industry interest. Another area of high interest was the lower Cook Inlet. But again, no success after ten dry holes. Even on the highly prolific North Slope, exploration success is not guaranteed. There have been some positive results such as the Endicott project and Shell's Seal Island discovery. But there have also been some very big disappointments such as the Mukluk well.

The next area of uncertainty is financial, the variations of the business environment. When evaluating bids for an exploration prospect, one considers key financial factors of prices, inflation and costs. No one knows exactly what these factors will be in the future, but every company has developed confidence in its methods to evaluate these factors. However, several special considerations make financial concerns even more complex in Alaska.

The first of these factors is simply the magnitude of the costs. One COST well in the Bering Sea, for instance, may cost $50 million. In the ice-free Gulf of Alaska, ARCO Alaska Inc. recently completed a well costing over $40 million. In the severe ice conditions of the Beaufort Sea, wells can easily cost $100 million or more, depending on water depth. Please note that these are just exploratory costs. The associated development costs, if exploration is successful, can be astronomical. As a hypothetical example, a typical Arctic development cost in the literature may be $5 a barrel. But if a billion-barrel field is required for the venture to be economic, a marginal field may cost $5 billion to develop. A big field may take $25 billion. A single platform in the North Sea, with its attendant wells and facilities, has costs of over $2 to $3 billion. These expenditures are going to stretch the purse strings of even the biggest company. Of course, it is a problem the industry would like to have.

A second complicating financial factor is the long lag time between expenditures and results. Eight to ten years may elapse from the discovery to production phases of an onshore Alaskan field. In the more difficult environments such as the Navarin Basin and the Beaufort Sea, those lead times may be more than twelve to fifteen years.

The high costs, in association with these long lead times, make it extremely difficult to determine the value of some of these exploration prospects and assess the risks of participation. Consider spending $5 to $25 billion knowing it may be fifteen years before you get any return.

It is difficult to overestimate the effects of political uncertainties. The frequent revision of lease sales schedules illustrates our dependence on government actions. Although schedules are published, considerable slippage and delays are common. There are many factors, including regulatory process, permitting, litigation, policies and taxes, over which the industry has little control. Industry representatives make comments and suggestions to influence administrators, but decisions frequently depend on who is in charge at the time.

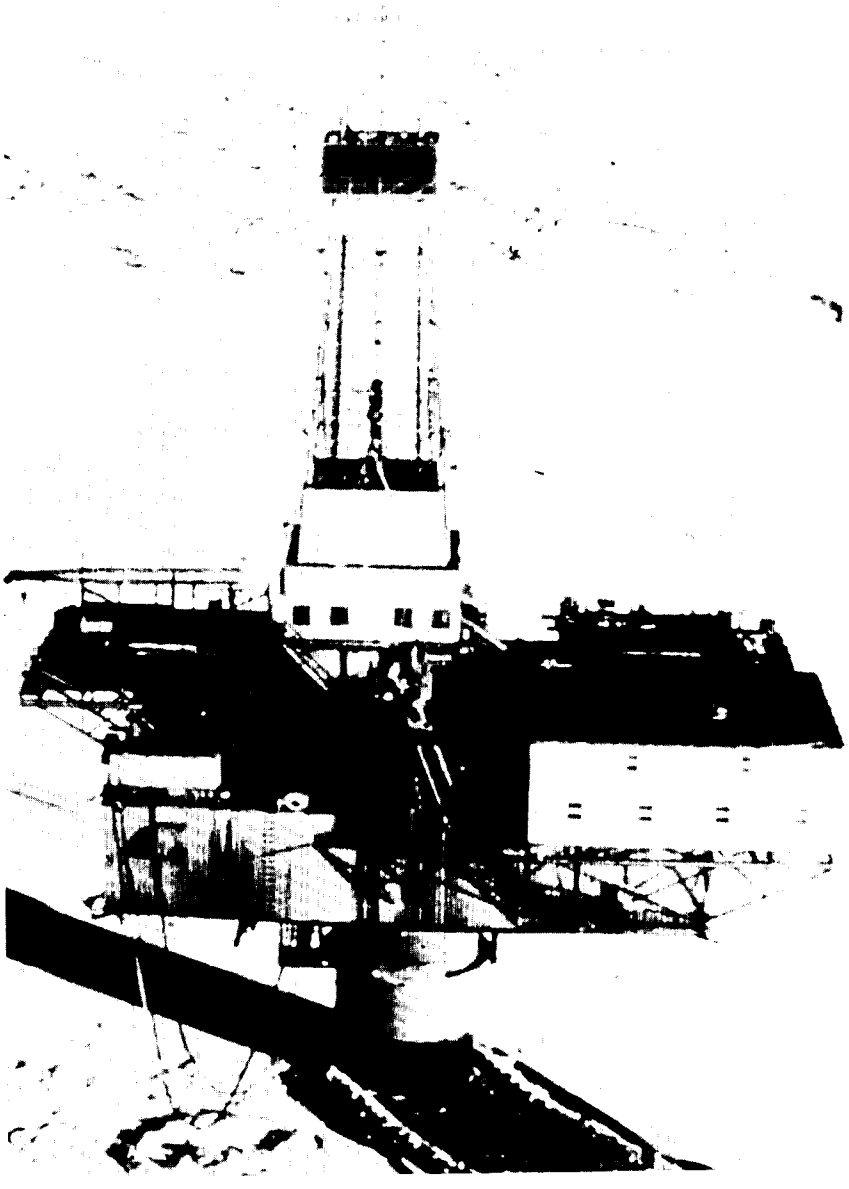
Another factor is the sometimes uncertain government share of revenue. Small changes in taxes may exert great leverage on decisions to develop marginal projects. Expected changes in the government share can also affect incentive to begin an overall exploration program. An increase in government taxes on the very few successful discoveries may kill incentive to finance the far more numerous dry holes which necessarily precede them.

Alaska's harsh environment poses extra uncertainties. The combination of ice, oceanographic, soil, and earthquake conditions must be carefully evaluated to properly assess the value of a site and move toward exploration and development. Another consideration, of course, is that the environment is sensitive and shelters endangered species. Industry, government, and academic researchers have been gathering environmental data for some time. The OCS Environmental Assessment Program has been investigating biological resources. The petroleum industry has concentrated on the operating design parameters and the physical environment characteristics of the areas. One industry group, the Alaska Oil and Gas Association, has sponsored approximately 200 projects concerned with gathering environmental data and with conceptual system design in these environments. Those projects cost a total of about $100 million. The Canadian APOA, similar to the AOGA, has done considerable work there, too. One government example is the MARAD- sponsored Polar-class icebreaker voyages to gather ice data in the Arctic.

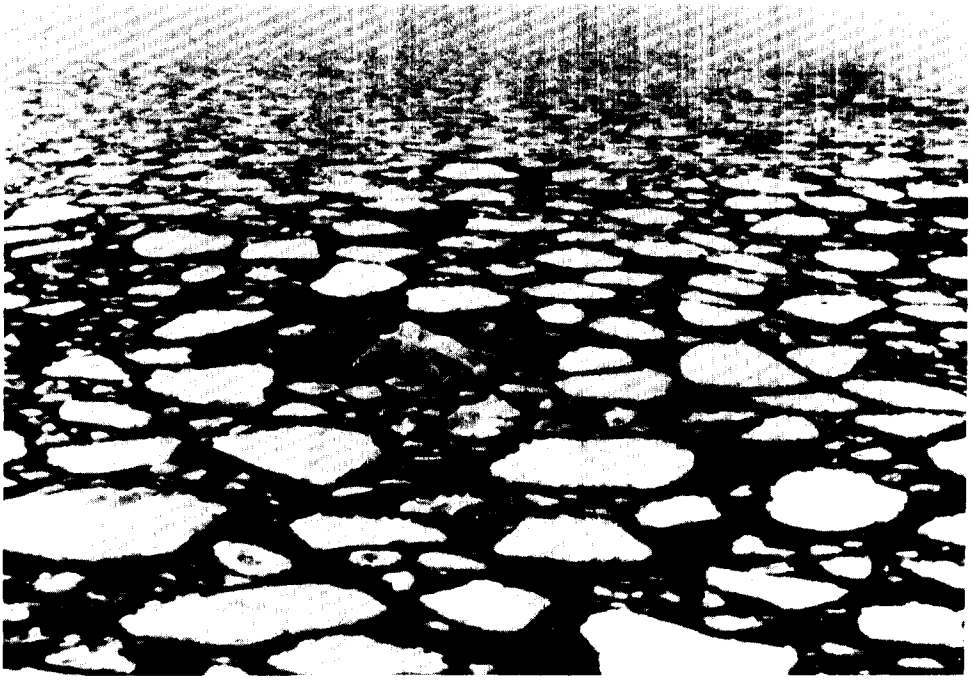
In summary, from my point of view the environment is our major constraint. The harsh environment means costs are high. Some of the systems and solutions necessary to operate in this environment have never been developed, so costs may be even higher than we anticipate. This means large fields are necessary to economically justify exploration and development.

From the political side, a stable environment of regulations and taxes is needed to better plan for this operation and development. Given luck and those two factors, perhaps in five to ten years we can install new facilities for new Alaskan oil fields.

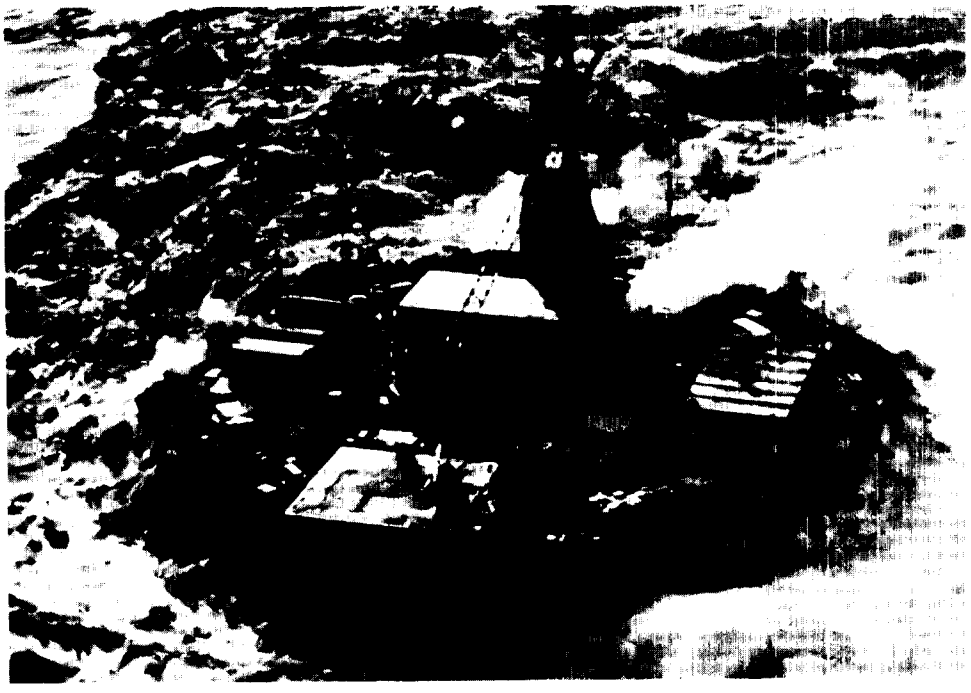
I thank you for your time.



Ice conditions at a platform installed in the early 1960s in the Cook Inlet area near Anchorage.



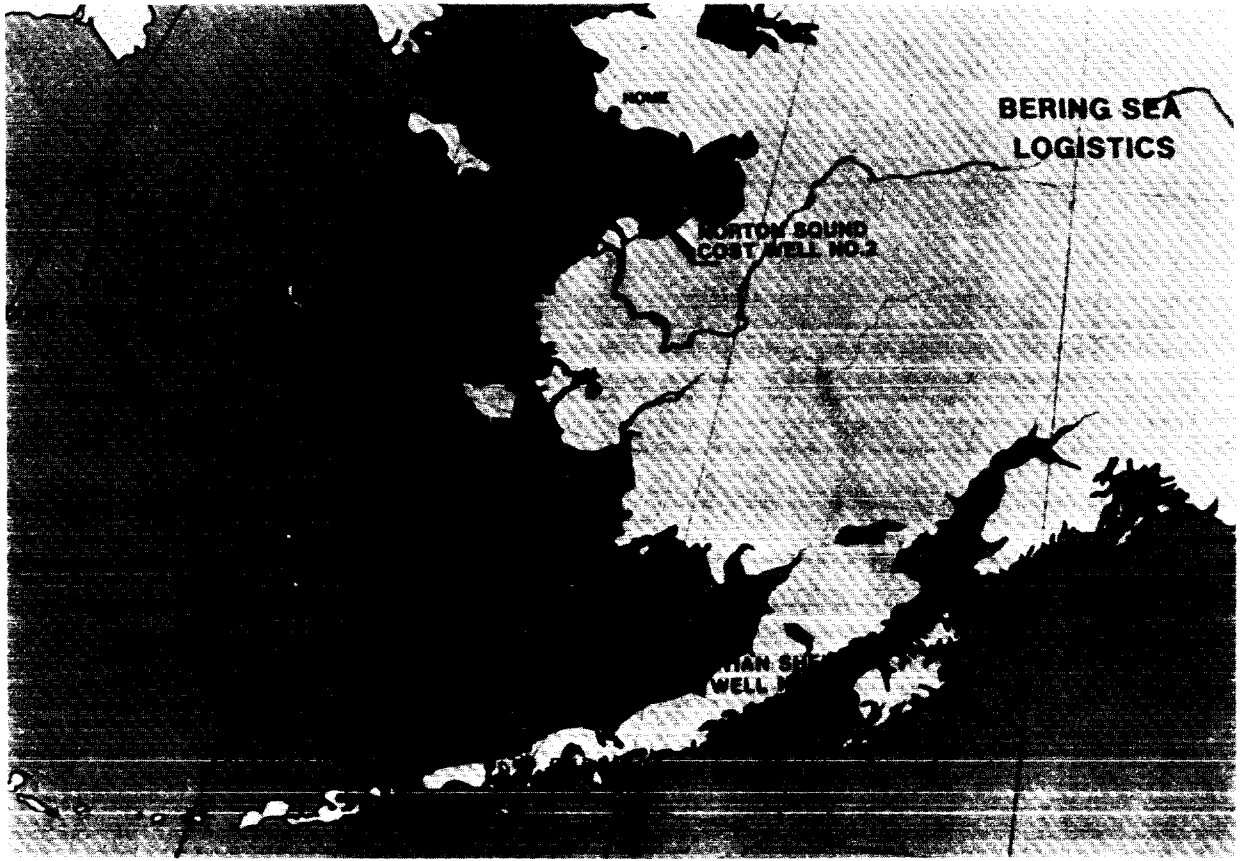
An ice edge condition in the Bering Sea but typical of a condition in the St. George Basin or the Navarin Basin, depending on the time of year.



Winter conditions on a gravel island in about 70 feet of water in the Canadian Beaufort Sea. The ice conditions are indeed the primary design criteria.

Oceanographic conditions must also be understood. We have reduced many of the technological uncertainties and are confident that we can operate in these conditions. But our first efforts are usually based on conservative designs to be sure all safety precautions are adequate.

This Boeing 234 helicopter makes the 3-½ hour trip from Nome to the Navarin Basin COST well. Its seating capacity was reduced from 41 to 17 to allow for the needed extra fuel.



The Bering Sea supply routes for the Navarin Basin COST well. Boat support for the rig equipment came from Dutch Harbor, approximately 500 miles away on a one-week round trip.

ECONOMIC AND ENVIRONMENTAL CONSTRAINTS ON THE DEVELOPMENT OF ARCTIC PETROLEUM RESOURCES

Roger Herrera
Manager, Operations and Land
SOHIO Alaska Petroleum

Randy Heintz dealt with many of the practical issues of OCS oil development, and certainly Arctic oil development. However, I don't agree with his conclusion that the environment is our major constraint. While I accept completely that the environment is a constraint on operations, my thesis is that our major constraints are political. I'm sure Esther Wunnicke is nodding her head when I say that because she and I often debate this type of issue.

The title of this talk implies that there are constraints on exploration in the Arctic OCS. Many environmentalists would argue that there are no, or insufficient, constraints and that there should be more, so perhaps we should examine that situation. What are the constraints and how do we measure their effect on exploration for oil in the Arctic? This is a worthwhile exercise because it puts into perspective what we are doing in America and specifically in Alaska with regard to our future energy supplies.

Now let us look at the British North Sea. I deliberately choose the North Sea because a lot of information from that area is available. The same players are involved, the same oil companies that work in Alaska work in the British North Sea, and the physical conditions are very close to those that we experience in the Bering Sea or in the open water seasons in the Beaufort Sea. The costs are comparable; they are many orders of magnitude greater than elsewhere in the OCS. To look at what the British have done in the North Sea in the last ten years or so is pertinent in gauging whether or not we have been subjected to constraints in our exploration endeavors around Alaska.

Since eleven years ago, when the reserves in the British sector of the North Sea were exactly zero, the British have developed twenty-five commercial producing oil fields and have discovered 13.2 billion barrels of proven oil reserves. In that same period of time in offshore Alaska we have developed no commercial oil fields. We have developed two onshore oil fields in Alaska, the Prudhoe and Kuparuk fields, versus the British twenty-five.

During the time of development and production in the North Sea, fishermen have also been catching a fish harvest far greater than that found around Alaska's coast or for that matter around the whole of the OCS area of the United States of America. So the compatability of fish and oil development is certainly well established in the British sector of the North Sea.

In 1983 the oil industry in the British North Sea drilled 129 exploration wells. In the whole of Alaska, both onshore and

offshore, we drilled thirteen exploration wells. Today there are forty-two rigs operating in the British sector of the North Sea. In the Alaskan OCS (in both state and federal waters) we have eleven rigs operating. This comparison suggests that there are or have been considerable constraints confining the amount of exploration which has been carried out in Alaska.

Having established the presence of constraints, one must ask the question: how important are these constraints? Does it matter that exploration has not been allowed to occur freely around Alaska? It is a fact that our reliance on oil and gas as a conventional energy source in the United States has not changed. Although we have learned to conserve, the percentage of our energy usage that comes from conventional oil and gas remains around 69 percent; 43 percent of that usage is pure oil. Today there proven reserves of 677 billion barrels of oil in the world, a great deal of known conventional oil. It can be produced at some time in the future. The problem is, of that 677 billion barrels of oil, 60 percent of it underlies OPEC countries, principally in the Arabian Gulf, 12 or 13 percent underlies Russia and China, and only 5 percent underlies the United States of America, both onshore and offshore. In the next ten years in America, the industry will have to come up with 32 billion barrels of new oil in order to simply replace the oil we use from our domestic reserves in that ten-year period. Right now the total domestic reserves of the United States of America are less than 32 billion barrels. So, realistically, the task that we have to face up to in the next ten years has an unlikely-to-impossible success ratio.

Where does Alaska fit into this rather doleful picture? Basically, Alaska contains about 50 to 60 percent of the outer continental shelf area of the United States of America. Of the sedimentary basins capable of harboring oil reserves in the United States, Alaska probably has in excess of 50 percent. To date in the Alaskan OCS a total of at least thirty exploratory wells have been drilled. Do we have an unexplored area where we can look to satisfy this insatiable demand for oil? The consensus of those who have looked is that the situation is favorable. Alaska will be the site of between 40 and 60 percent of the future oil discoveries found in the United States of America. That is a very significant percentage of our oil for the next ten years. The statistics in Alaska tend to bear out that forecast. Historically there have been only 550 exploration wells (looking for new oil) drilled in the state of Alaska both onshore and offshore. Of those wells ten were commercial oil field discoveries. It's worth mentioning that the oil must be of commercial quality before any advantage may be gained from a discovery. Finding non-commercial oil is more or less a waste of time. It stays in the ground and does not benefit anyone.

The discovery wells to date have averaged about 1.2 billion barrels of oil. That is a significant quantity. And if we keep up that rate of discovery in the future, all the forecasts regarding the importance of the Alaskan OCS would appear to be

quite reasonable. The problem is, that statistic includes Prudhoe Bay, which is enormous. We cannot expect such a discovery to be repeated. If we take Prudhoe Bay out of the statistic, we still end up with every other commercial discovery being of the order of 217 million barrels of recoverable oil. That is a far greater yield than any statistic applicable to the lower forty-eight states, or to any OCS area around America with the exception of the Alaskan Beaufort Sea and Bering Sea. So, hope is alive and well in Alaska.

We have established that there are constraints on exploration in Alaska compared with other areas, and perhaps we should look further to consider the Canadian Beaufort, which is directly comparable to the situation in Alaska. Again we see evidence that industry has not been encouraged to drill in Alaska. There have been over 160 wells drilled in the Canadian Beaufort Sea versus the thirty-six or so drilled in the Alaskan Beaufort Sea. If we want to continue to look at these sorts of examples, we can look at the rest of the OCS around America. Twenty thousand wells have been drilled, most of them offshore Louisiana and Texas, a few offshore California, and thirty offshore Alaska.

Alaska shines forth as the only opportunity that we have in this country to add measurably to our domestic reserves over the next ten or fifteen years. And the alternative to that, as I have said, is OPEC or unavailable oil from countries which are not friendly to us.

So what are these constraints? Mr. Heintz talked about some of the physical constraints and perhaps in passing it is necessary to state a fact: the easiest thing the oil industry does in Alaska to date in the OCS is to drill wells. The physical action of drilling a hole in the ground is by far the simplest thing we undertake. The most difficult thing is obtaining permission to drill that well.

Let me illustrate that fact with a situation that is ongoing today. A few weeks ago, a lease sale took place in the Beaufort Sea. Those leases have been issued in the last week or so and my staff is now working diligently, spending money, and establishing a sort of team effort to drill a well which we hope to start 1 November 1986 on some of those new leases. From now until 1 November 1986 there will probably be two or three dozen people working full time simply to get permission to drill a well which in essence will take us forty days to complete. Two years for a forty-day action. Now, is that a political constraint or not?

A list of the physical constraints is worth repeating. Water depths in the Beaufort Sea are obviously a problem as are ice forces; we have to be sure that we have a conservative risk factor associated with those forces. Marine forces, as you saw in the pictures, cannot be ignored and will probably turn out to be more important to us than ice forces. When we move out of the major ice environment of the high Arctic into the Bering Sea, the lack of infrastructure and the logistics associated with it are probably major physical problems. Costs are a given.

But the driving force on costs is not so much the physical environment as the politics. If the politics say you can only drill in the winter time, your costs are automatically up by a factor of two.

One of the biggest political constraints in Alaska is the inability of governments and native organizations to realize the benefits to both environmental protection and to future energy resources of allowing the oil industry to work year-round. The safest rig or the rig least likely to have an accident is one which is warm and has a well-trained crew that operates continually. When a drilling rig is contracted to work for three months of the year, the crew is usually untrained or cold. Obviously it is not going to be as sharp and professional as one that is constantly working. In addition, the cost of drilling one well a winter with the new structures that are being utilized in the ice environment of the Alaskan Beaufort is more than $100 million. If you could use that structure not only in the winter but also in the summer and drill multiple wells one after the other, costs would come down to $50 or $40 million a well.

The oil industry has to manage its money like any other corporation. And like any corporation it must maintain a reasonable profit and loss margin. The oil industry is trying to find oil for everybody's benefit, and the more wells drilled, the better the chances of finding oil. The major oil fields have proved to be extraordinarily difficult to stumble upon. For example, Prudhoe Bay was a second-generation discovery; the first phase of exploration on shore had been completed with no positive results before that mammoth oil field was discovered.

The situation offshore Labrador is another classical example of the early wells' not bearing fruit, and only in the second phase of exploration was a major commercial discovery made. In northern North Sea, sixty-odd wells were drilled without a commercial discovery before the twenty-five oil fields suddenly appeared out of the blue. My point is, if wells are so expensive that industry does not drill Phase 2, major discoveries are not going to be made. The political constraints in Alaska are preventing us from drilling efficiently and from drilling relatively inexpensively by the terms of expense and cost in the Arctic. The number of wells drilled is decreased, which in turn decreases the likelihood that the large discoveries will be made.

I am sure lawyers will love to hear me say that the Coastal Zone Management Act is a major constraint to the future of oil discoveries in the OCS of Alaska. To give a coastal community of a couple thousand people (well-meaning people but certainly not people to put the national good above their perception of their economic future) the capability to use a veto on the OCS activities and OCS drilling is an odd situation, to say the least. It surely is not in the best interests of a nation whose oil policy appears pretty grim when we look down the energy road. I'm not advocating that the Coastal Zone Management Act should be changed. Inevitably, when these issues are opened up

by Congress, the end result is worse than what we started with. But I am suggesting that if the authority (if you want to call it that) of coastal communities is permitted to develop to the fullest extent allowable, apparently, in that Act, the United States of America simply does not have a viable oil policy for its future.

The future of our domestic oil situation, our energy situation in America, is going to be dependent on attitude, governmental attitude. Unless the government realizes that exploration in Alaskan OCS (and elsewhere for that matter) should be encouraged, no positive results from the Alaskan OCS will be forthcoming. Industry will simply pull up its stakes after drilling a few $100 million dry holes and go away. If the federal and state governments would administer the regulations in a more practical and reasonable fashion, that in itself would be the encouragement that would probably result in success in the Alaskan OCS. The policy of the State of Alaska at the moment tends to be somewhat narrow and opposed to OCS development unless there is something in it for them. I would suggest that in the future there is something in it for all of us. If we don't get the benefit from Alaskan oil, we are all in trouble.

What the State of Alaska does not realize is that discouraging or at least opposing OCS exploration discourages industry. Industry does not care whether it is drilling its wells in the three-mile limit on state acreage or on federal acreage or even onshore on native land. The actual physical exercise is more or less the same. Anybody who discourages industry tends to make it pull back and look at these huge investments very, very carefully. Rather than deal with these difficult frontier areas such as Alaska, the industry may direct its investments elsewhere.

In closing, I want to address the bowhead whale and the Endangered Species Act. One of the policies that the oil industry agrees on is that we will never knowingly break the law. We also agree on a couple of other things which are worth mentioning. We don't put our people at risk; this is important to realize because it has implications for environmental protection. When we go out into the OCS the rule of thumb is that the people are going to be safe, come what may. We do whatever is necessary to insure that and, in doing so, we inevitably protect not only our people but also the environment in which they are working, and the physical and biological environment. We also have a policy of protecting the physical and biological environment as a separate exercise. We don't break the law.

The bowhead whale is protected under the Endangered Species Act, but there should be enough flexibility in the approach of the agencies which adjudicate that Act to allow drilling at the same time that the bowheads may be physically in an area. I think the future of the agreed-upon potential of Alaska with regard to oil is going to be in grave jeopardy because the bowhead whale legislation can prevent year-round drilling,

therefore modifying upwards the costs involved in exploration. So the answers to these restrictions and these constraints are fairly clear. They involve a degree of education, a degree of understanding of our less than enviable energy future in the United States of America, a willingness to change attitudes. That is a rather simple solution to the problem. But my experience in Alaska leads me to believe that if we had less of an adversarial relationship with the state and federal governments we would be allowed to get on with our work. Industry wants to explore for oil and gas in a safe, reasonable manner and produce the benefits of that exploration for everyone's future. Thank you.

DELIMITATION ARRANGEMENTS IN ARCTIC SEAS: CASES OF PRECEDENCE OR SECURING OF STRATEGIC/ECONOMIC INTERESTS?

Willy Ostreng
Director
Fridtjof Nansen Institute

All social structures are subject to change. The Law of the Sea is no exception. UNCLOS III provided the occasion for a shift of fashions. The criteria for delineation of continental shelves between adjacent states mutated from a specific into a diffuse mode, from the median line principle and "special circumstances" into equitable solutions, the 1982 Law of the Sea Convention (LOSC-82) being the new savoir faire. The new delimitation criteria are couched in the following terms (Articles 74 and 83) of LOSC-82:

> 1. The delimitation of the exclusive economic zone/continental shelf between states with opposite or adjacent coasts shall be effected by agreement on the basis of international law, ... in order to achieve an equitable solution.
> 3. Pending agreement as provided for in paragraph 1, the states concerned, in a spirit of understanding and cooperation, shall make every effort to enter into provisional arrangements of a practical nature, and during this transitional period not to jeopardize or hamper the reaching of the final agreement. Such agreements shall be without prejudice to the final delimitation.

This development leaves the settlement of criteria for stipulation of boundaries to the negotiating parties, while at the same time the scope for consideration of regional characteristics is enlarged. "Special circumstances" now denotes not only geographical factors; also political, legal, demographic and economic features of the regions in question may be taken account of. A forerunner to this modification of the Law of the Sea can be identified in the Norwegian-Soviet negotiation on the delimitation of boundaries in the Barents Sea. Here the Soviets claim several circumstances of this character supporting their case.

The impaired instruction as to what delimitation criteria that are constituent of international law necessitates search for other sources of constitutive elements. These are, among other things, to be found in state practice as expressed in regional arrangements already in effect. Having scant precept, one is inclined to search for a terra firma elsewhere, that is, in established arrangements. Thus regional arrangements [1] are taking on a general significance, influencing negotiations on delimitation of boundaries in other areas. This is what could be called the dialectics of ocean law (See Figure 1).

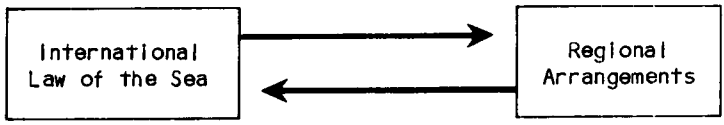


Figure 1: The Dialectics of Ocean Law

The purpose of this paper is to examine the extent to which two arrangements between adjacent states in the European part of the Arctic will create precedents for the stipulation of the boundary in the Barents Sea. In particular we will focus on the question of whether such precedents can be alleged to support the Soviet claim of having the delimitation line coinciding with the sector line of 1926. The delimitation arrangements concerning us here are the Grey Zone between Norway and the Soviet Union in the Barents Sea, and the Norwegian - Icelandic joint area for exploration and exploitation of petroleum resources between the Norwegian island of Jan Mayen and Iceland in the North Atlantic (Figure 2). Having the equitable principle in mind, we will discuss the Soviet utilization of the sector principle and relate this to the prospects of reaching a final agreement on the dividing line in the Barents Sea which takes reasonable account of the sector line claim.

To put the boundary problem of the Barents Sea into its proper setting, it is necessary first to say a few words about the national significance of these waters to the two countries.

THE BARENTS SEA PROBLEM

Economic and Security Interests

Covering only 0.3 percent of the world ocean surface, the Barents Sea yields nearly 4 percent of the annual global fish catch, accounting for 50 percent of the Norwegian and 12 percent of the Soviet catches respectively. As for mineral resources, the expectancy is positive regarding the potential petroleum yield [2]. According to Soviet sources some 35 percent of the estimated offshore oil reserves of the Soviet Union are located on its European shelf, most of it likely to be found in the Barents and Kara Seas. Here 19 petroleum structures are identified [3], and the Soviets are determined to intensify oil prospecting here in the years to come (see Figure 3) [4].

The Barents Sea harbors one of the most massive and potent fleets of our time: The Soviet Northern Fleet. In terms of density of naval units hardly any waters can match that of the Barents. A striking feature is the number of submarines: 70 percent of the Soviet strategic submarines and 75 percent of their Delta class vessels operate from bases here. Due to radical improvements of missile range, large parts of this fleet no longer have to seek firing positions in the Atlantic to fulfill its strategic mission. Every civilian target in the U.S.A., China, and Western Europe can be reached from a launching site in the Arctic. Hence, in addition to its transit

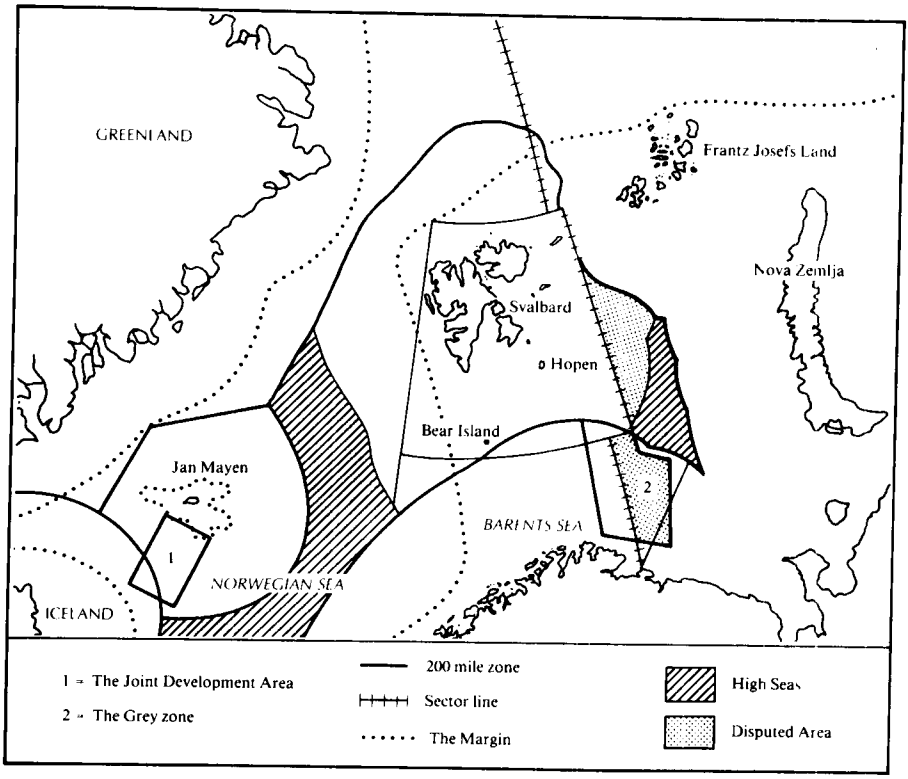


Fig. 2. The grey zone and the joint development area

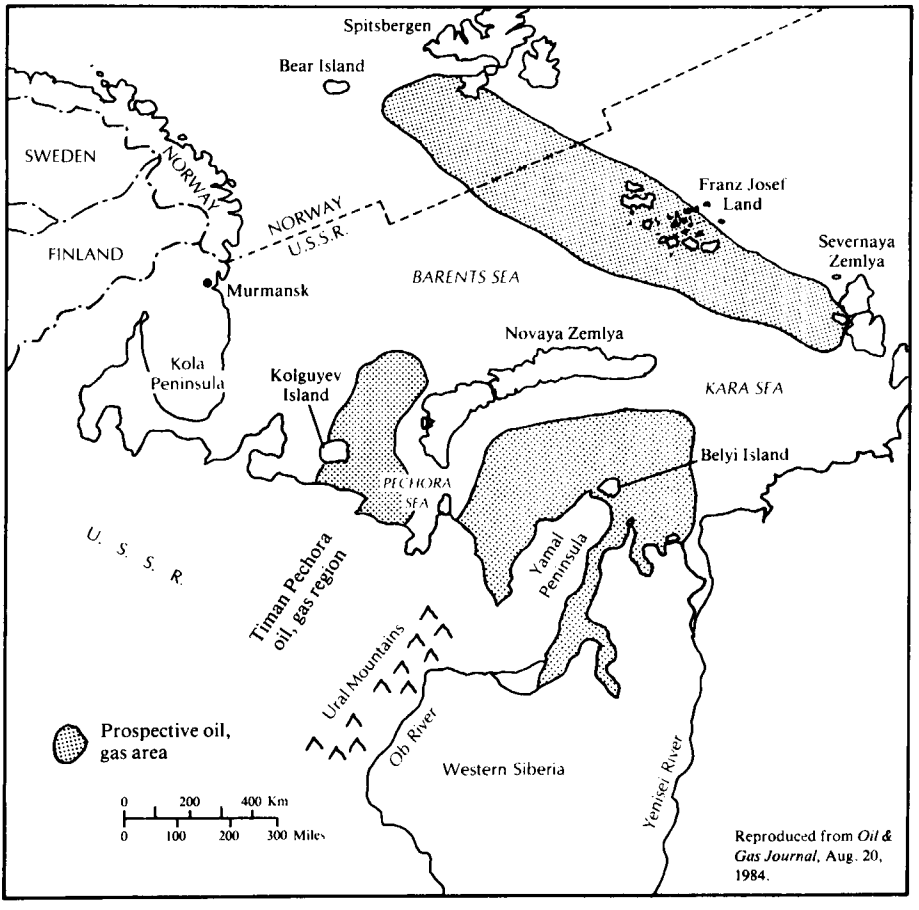


Fig. 3. Soviet map on potentially petroliferous areas in the Barents—and Kara Seas

area function the area also has acquired a stationing area role [5]. In the post-World-War-Two period the Soviet Union has claimed time and again that the Svalbard archipelago to the north of the Barents Sea is a potential base for military operations against their ships and territory (see Figure 2). The fact that military activities in the archipelago are strictly limited in the Svalbard Treaty (Article 9) does not appear to restrain the vigor of their argument [6]. The Soviet interest has been aptly described by the former Admiral Arseni Glovko: "Without the Kola inlet the Northern Fleet cannot exist -- the Kola inlet is necessary to the state" [7].

The geographical proximity of North Norway to the Soviet Union has been the fundamental parameter for the formulation and implementation of the Norwegian security policy of the past forty years. The joining of NATO in 1949 as well as the subsequent policy of self-imposed military restraint was intended to adapt to these facts. Strict adherence to Article 9 of the Svalbard Treaty is an integral part of this policy [8]. Hence, both countries have considerable national interests at stake in this area. The partition of the Barents Sea has acquired the prominence of a "high politics" issue.

The Delimitation of the Barents Sea Continental Shelf

In 1967 the issue of the partition of the Barents Sea continental shelf was brought onto the agenda by the Norwegian government. Negotiations with the Soviet Union have been on and off since 1974, albeit without the prospect of an agreement drawing close. Both parties endorse the 1958 Continental Shelf Convention and invoke Article 6 as the basis for negotiation. They are, however, pleading different sections of Article 6. Norway holds the median line as the negotiation basis, while the Soviet Union favors a dividing line "justified by special circumstances," that is, the dividing line should coincide with the sector line, drawn along longitude 32 degrees 04 minutes 35 seconds east (Figure 8). This was first done in 1926 when the Soviet Union issued its sector decree, which asserts sovereignty over all islands between 32 degrees 04 minutes 35 seconds east and 168 degrees 49 minutes 30 seconds west. The ocean between the median line and the sector line covers an area of some 155,000 sq. km., i.e., an area larger than the Norwegian North Sea shelf (144,000 sq. km.) (Figure 4).

The Soviet Union invokes a rather generous interpretation of the "special circumstances" concept, the list of circumstances having acquired considerable proportions. It accommodates not only the sector claim; also economic, demographic, security and other features of the region are claimed to be of relevance. Norway rejects the sector principle with reference to its controversial status in international law. Canada is the only nation besides the Soviet Union supporting this principle, in its territorial claims in the Arctic.

Furthermore, the Norwegian government assumes the term of "special circumstances" to apply to geographical factors only, such as coastline configuration and the existence of islands, as

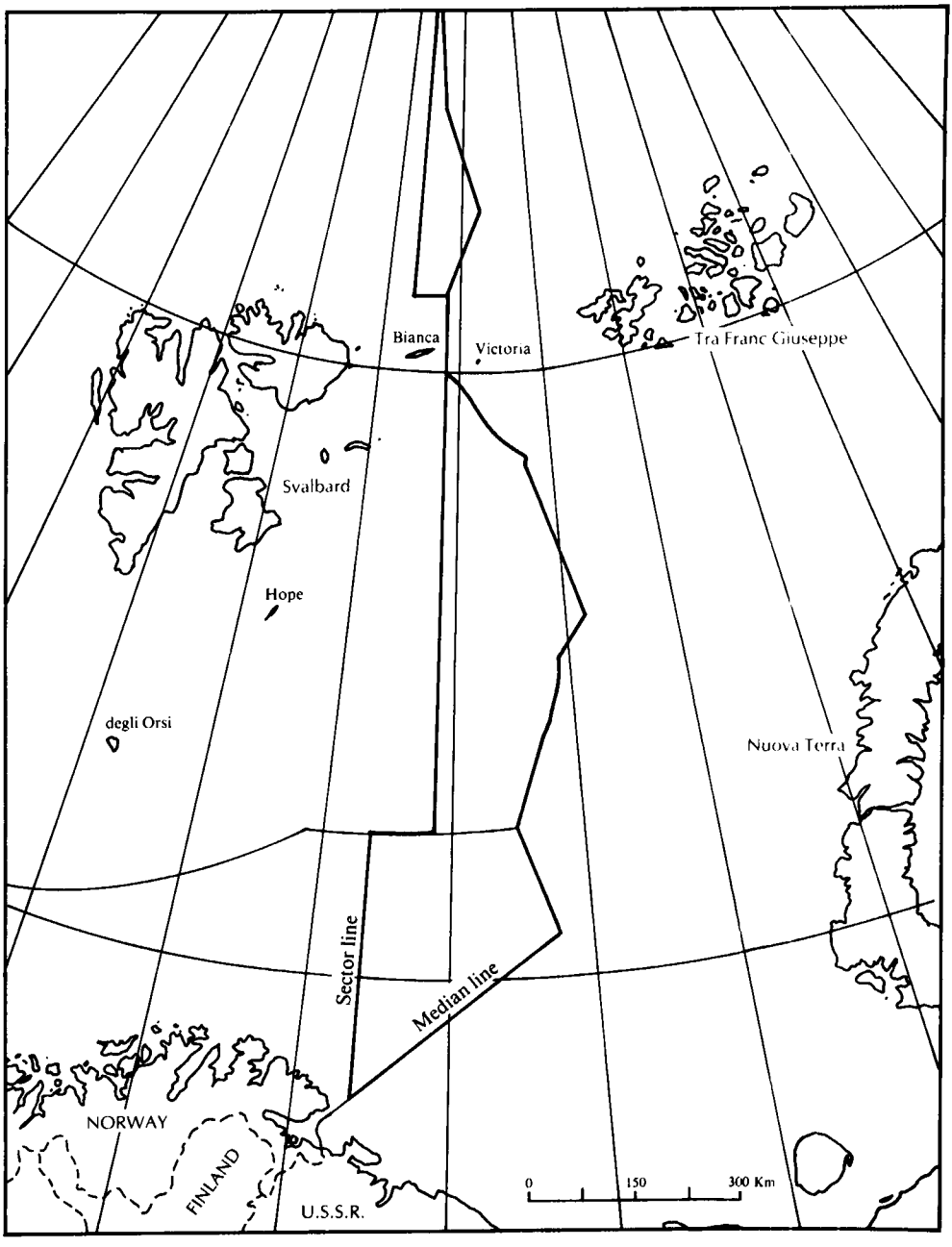


Fig. 4. The disputed area in the Barents Sea

according to the Hague Tribunal. Hence, the Norwegian position is that neither the sector principle nor the Soviet version of "special circumstances" have precept in existing international law. Since 1978, however, Norwegian authorities have recurrently confirmed their compromising disposition in these negotiations. Thus far this attitude appears not to have its Soviet counterpart.

In the course of the first months of 1977 Norway and the Soviet Union both extended their fisheries jurisdictions to 200 miles. Thus the delimitation problem was activated.

The Grey Zone Arrangement

Due to the importance of the fisheries in the area affected by the deadlocked delimitation talks a need was felt both in Oslo and in Moscow to set up a preliminary arrangement of provisional rules for the fisheries. In January 1978 a provisional agreement was reached, the "Grey Zone Agreement." The area covered by this accord does not correspond exactly to the area disputed in the delimitation talks. Some parts of the disputed area are left out, while adjacent areas to the east and to the west are included in the arrangement. The area to the west of the sector line is larger than the corresponding area to the east of the median line (Figure 5). There is thus a lack of geographical balance. The Grey Zone agreement, however, includes a provision stating that the agreement shall not prejudice the position of either party in the boundary-line negotiations. It is in force one year at a time only, and has to be renewed by every July 1 to remain valid [7].

The agreement ensures third-party fishing vessels admission to the zone provided they are licensed to do so by either Norway or the Soviet Union. Norway has the jurisdiction over third-country vessels fishing by a Norwegian permission, and the Soviet Union has the jurisdiction over those fishing by their consent. Norwegian authorities emphasize that this system is not a joint jurisdiction arrangement, but a regime of clearly separate responsibilities.

The Grey Zone arrangement was established pending the enactment of a definitive dividing line to be unprecedented by the present agreement. Nevertheless, it has been contended that this arrangement is of a prescriptive nature, influencing the outcome of the negotiations. Similar statements are advanced regarding the Norwegian - Icelandic joint area for exploration and exploitation of petroleum resources between the Norwegian island Jan Mayen and Iceland. Therefore an examination of the background and content of this agreement is warranted, too.

THE JAN MAYEN AREA

The Area Becomes Interesting

Until five years ago the topic of Jan Mayen and its surrounding waters was not a salient issue in Norwegian, Icelandic or international politics. The reasons for this are numerous and understandable: Jan Mayen is situated in the

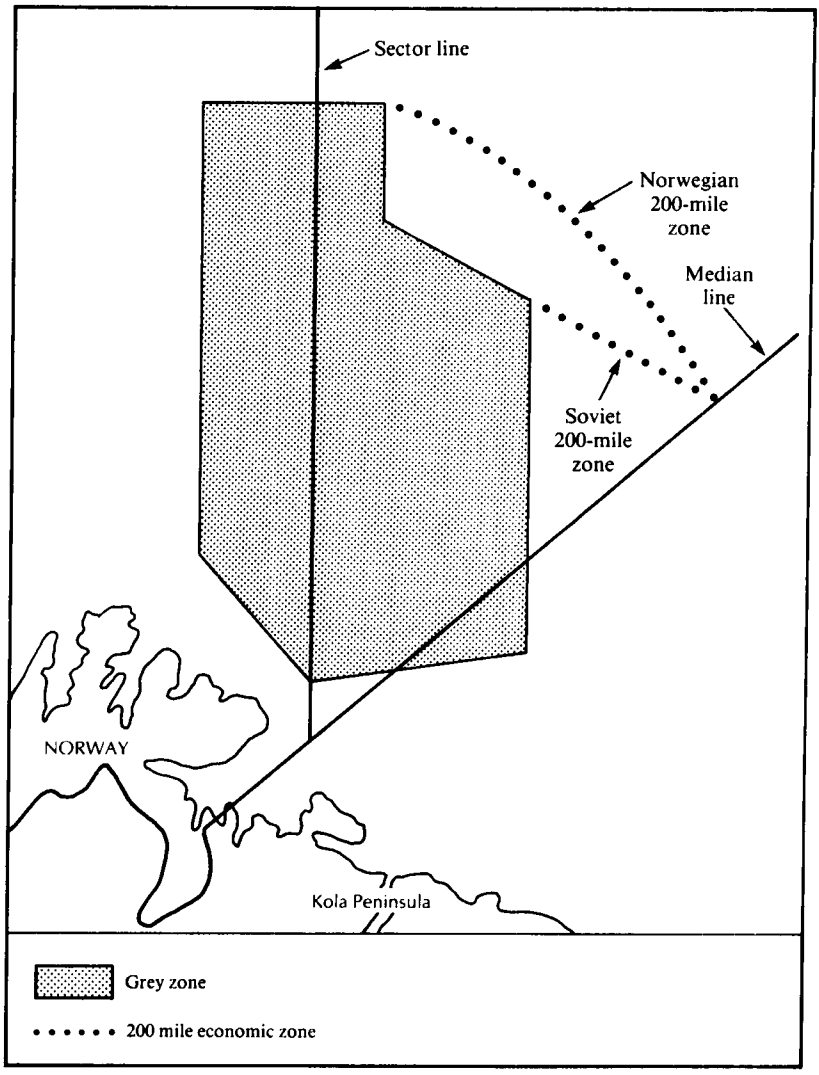


Fig. 5. The disputed area and the grey zone

northwest corner of the Norwegian sea and covers a mere 373 sq. km., it is volcanic, barren, poor in natural resources, and situated well off the beaten track: 540 nautical miles from Norway and 290 and 240 nautical miles from Iceland and Greenland, respectively. The waters surrounding the island used to be considered as not particularly interesting, as far as natural resources were concerned. This was most clearly expressed by Norwegian authorities in 1961 and 1976, when the law relating to Norway's extension of the fishing limit to 12 nautical miles, and the law relating to Norway's economic zone, respectively, were made valid but not implemented for Jan Mayen. Prompting this was the assumption that such provisions were not needed in areas devoid of interesting resources.

Jockeying of Positions

When a Norwegian vessel in the autumn of 1978 netted a large catch of capelin southwest of Jan Mayen, interest was aroused in Norwegian and Icelandic political quarters. In the ensuing week more rich hauls were made of capelin and blue whiting. A political snowball started rolling: in February 1979, a few months after the first landings, the Norwegian government reclaimed her right to an economic zone around Jan Mayen, to be established when considered convenient. This move was countered by the Icelandic government, which argued that Jan Mayen according to international law was entitled to neither a continental shelf nor to a zone. The Icelandic position was founded on the allegation that islands only were entitled to lay claims to ocean and seabed areas, and that Jan Mayen by its geomorphological character could only be described as a rock; the Norwegian claim was thereby deemed absurd. Now the Icelanders instead claimed the right to the continental shelf for themselves, asserting that Jan Mayen was to be regarded as a protuberance of an extension of the Icelandic shelf. It was also stated that if a zone were to be set up, it was to be subject to joint Norwegian - Icelandic jurisdiction. These demands were rejected by the Norwegian government, which in the first place considered Jan Mayen an island, and secondly, claimed that the shelf was undoubtedly Norwegian. Also arrangements involving joint jurisdiction were repudiated. From these skirmishes two sets of questions to be resolved were crystallized: the control of fishing, and continental shelf rights.

Following numerous informal contacts and negotiations stretching over a year, the Icelanders accepted that Jan Mayen was entitled to its own zonal arrangement. The problem was, however, that this arrangement was to exceed the 200-mile zone of Iceland with some 25,000 sq. km. (Figure 6). Negotiations continued, and on 28 May 1980 the parties arrived at an Agreement Concerning Fishery and Continental Shelf Questions, in which Norway renounced the disputed area, and Iceland recognized Norway's right to a zone. Norway then established a 200-mile fishery zone, based on the Act of December 17, 1976, relating to Economic Zones, and on the clarification of relations with

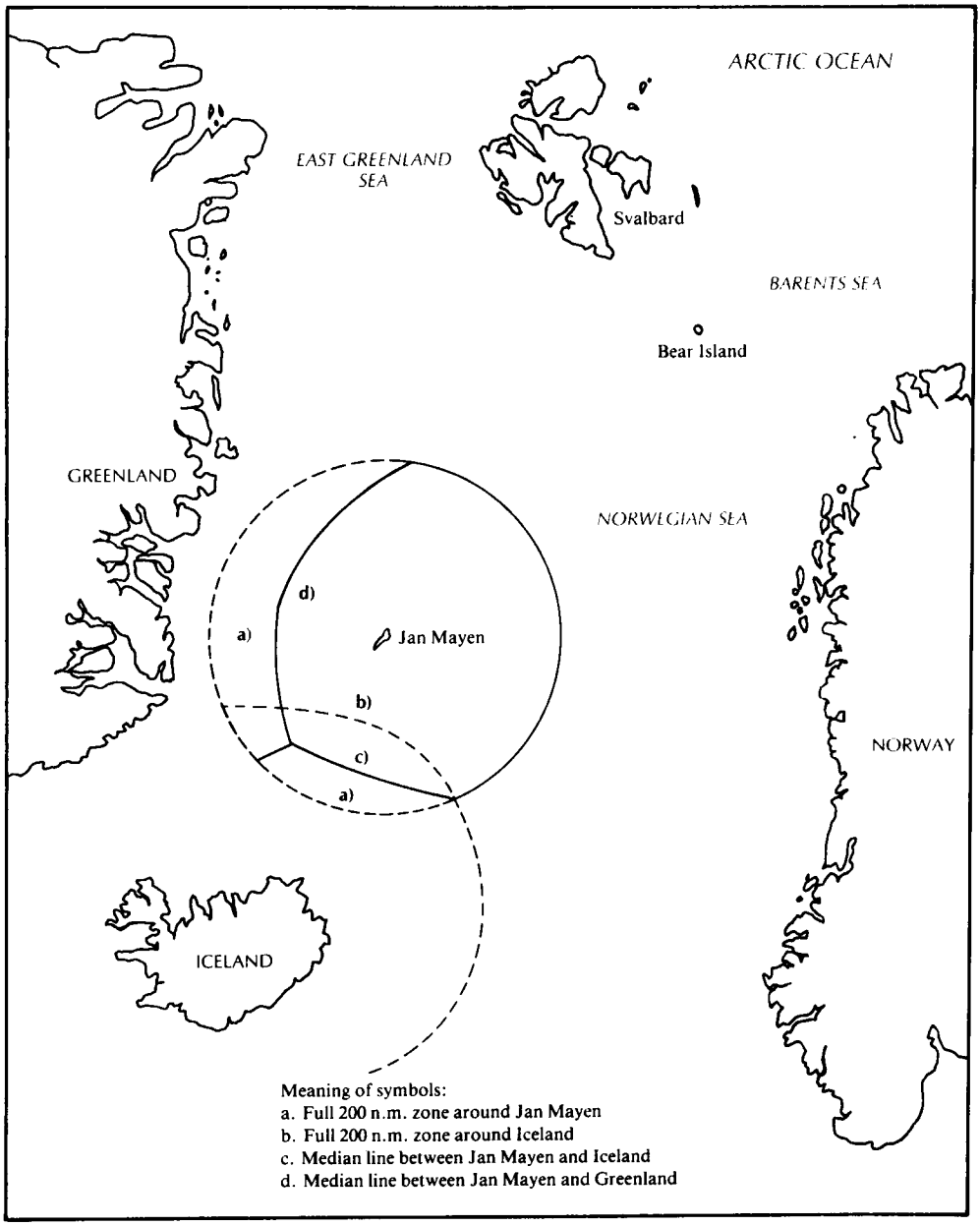


Fig. 6. Alternative solutions for the disputed area between Jan Mayen and Iceland

Iceland. The question of whether Jan Mayen was to be regarded as a rock or an island was by the enactment of the fishery zone settled in accordance with the initial Norwegian position which entailed that Jan Mayen in principle was entitled to a continental shelf. It was still not evident, however, what kind of regime was to be applied to the continental shelf. The agreement, which offered Iceland substantial advantages not to be dealt with here, applies primarily to fish [10]. The continental shelf is dealt with in two out of ten articles only, and only procedural matters pertaining to future negotiations are touched upon. A Conciliation Commission with three members was appointed in 1980 having "... as its mandate the submission of recommendations with regard to the dividing line for the shelf area between Iceland and Jan Mayen. In preparing such recommendations the Commission shall take into account Iceland's strong economic interests in these sea areas, the existing geographical factors and other circumstances" [11]. In May 1981 the Commission submitted a unanimous proposal which provided the basis for the ensuing negotiations, which resulted in the Agreement on the Continental Shelf in the Area between Iceland and Jan Mayen of October 22, 1981. Thus the questions at issue were resolved and a new system of international cooperation on joint development of hydrocarbons was created.

The Conciliation Commission and its Recommendations of May 1980

The Commission faced two sets of questions: whether Jan Mayen was to be regarded as an island or a rock, and whether Jan Mayen was situated on an extension of Iceland's continental shelf, thus to be regarded as a protuberance thereof.

To decide whether Jan Mayen was an island or a rock, the Commission drew on Article 121 of the Draft Convention on the Law of the Sea Informal Text of August 27, 1980. Paragraph 3 of this article, together with the actual size and economic history of Jan Mayen, provided a basis for the Commission's declaration that, according to international law, Jan Mayen was an island, and thus "... entitled to a territorial sea, an economic zone and a continental shelf" [12].

Furthermore, the Commission concluded that the Jan Mayen Ridge geologically speaking

> ... is a microcontinent that predates both Jan Mayen and Iceland, which are composed of younger volcanics; therefore the ridge is not considered a natural geological prolongation of either Jan Mayen or Iceland (see Figure 7) [13].

There was no doubt: the shelf surrounding Jan Mayen was not a geological extension of the Icelandic shelf, it had an origin of its own. In spite of this the Commission decided to recommend to the authorities in the two countries concerned that a joint development area for hydrocarbons ought to be set up in the area between Jan Mayen and Iceland.

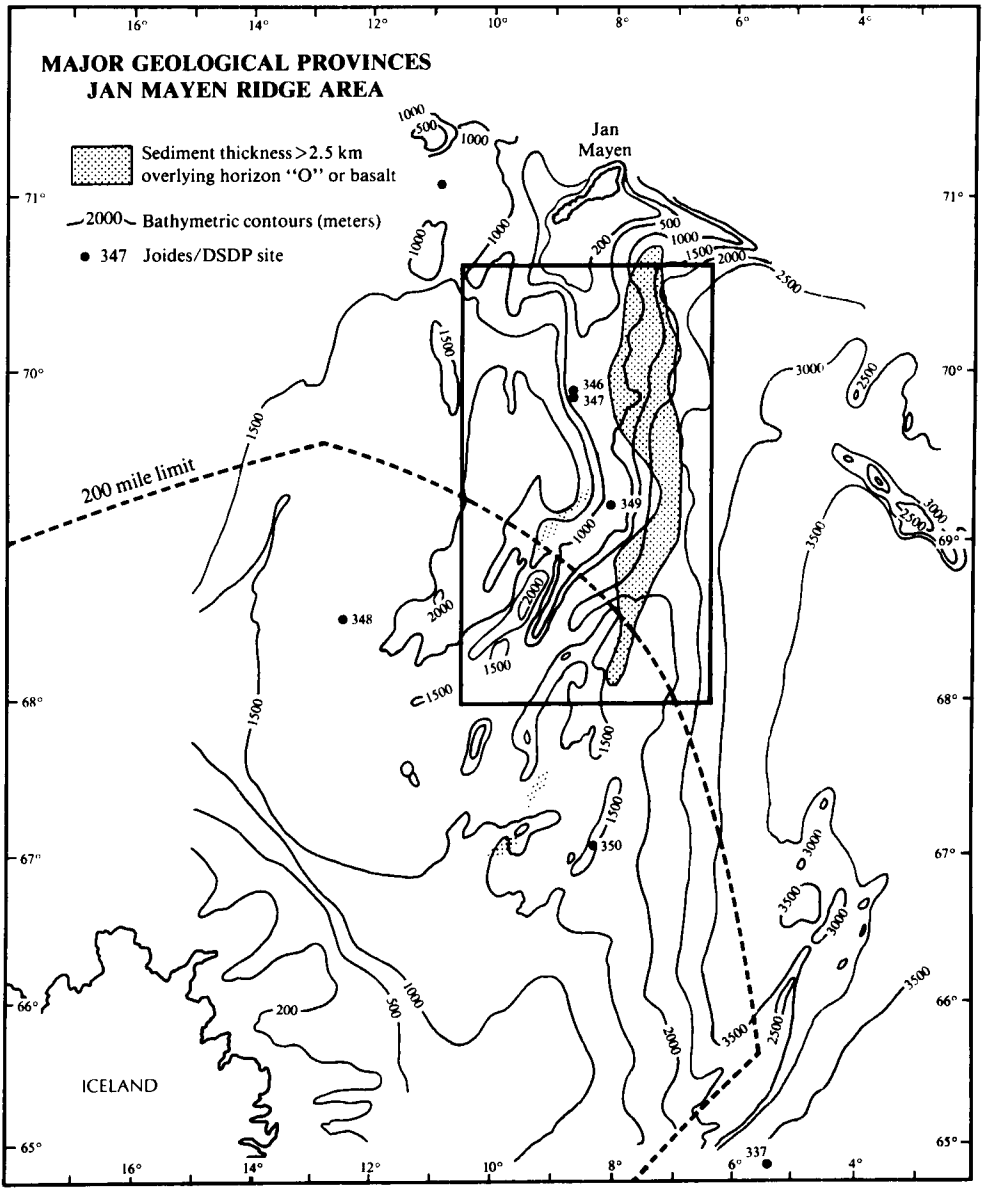


Fig. 7. The joint development area between Iceland and Jan Mayen

Some Relevant Features of the Joint Development Area [14]

The gist of these recommendations, subsequently accepted by both governments, was that the dividing line between parties' respective parts of the continental shelf between Iceland and Jan Mayen should coincide with the dividing line for the economic zones in the area. Furthermore, there was agreement that the two countries should cooperate on exploration and exploitation of petroleum resources in an area situated between 68 degrees and 70 degrees 35 minutes north and between 6 degrees 30 minutes and 10 degrees 30 minutes longitude west, an area of 45,470 sq. km. (see Figure 7). Cooperation between the two countries is to be in terms of joint venture contracts, unless the parties should agree to other arrangements. In their respective sections the laws of the country shall apply, provisions relating to supervision and control, security and environmental protection included. It is further stated that if an oilfield should prove to extend beyond the area of joint development within the Norwegian zone, this field should in its entirety be regarded as a part of the joint development area. If a field on the other hand extends beyond the joint development area into Iceland's 200-mile economic zone, the rights of Iceland apply [15].

Before discussing the potential precedence effects of these two agreements on the delimitation-line negotiations in the Barents Sea, we shall sketch some distinct qualities of the two arrangements. This serves to underscore the universal potency, that is, the "transfer value" relative to other regions, of these agreements.

THE GREY ZONE AND THE JOINT DEVELOPMENT AREA: A COMPARATIVE APPRAISAL

In evaluating the content of a sea-boundary agreement among two or more countries, two sets of questions are crucial:

1. The distribution of jurisdictional responsibility -- that is, who is responsible for what, when, and where?
2. The geographical equilibrium of the agreement: who got what and how much of a disputed area?

The first set pertains to what functions an actor is entitled to perform in certain contexts; the second set points to the right to perform these functions by having jurisdictional responsibility in possession.

As for jurisdictional responsibility, the two agreements can be illuminated by their diversity:

* Temporally the Grey Zone is an interim arrangement, to be renewed every year in order to remain operative, while the joint area is permanent.
* Authority is in the Grey Zone instituted in a shared responsibility/"parallel jurisdiction" regime effective in the entire area. The joint area is divided into distinct

national jurisdictional areas based on fixed delimitation lines.

* As for legal status, the Grey Zone is a substitute for a decisive delimitation line, while the corresponding line in the joint area is an integrated part of the arrangement.
* The subject matter of the Grey Zone agreement is fish; the two arrangements with Iceland pertain to fishery as well as shelf resources. The delimitation mode for the Grey Zone is that of a protracted "transition area" between the Norwegian and the Soviet zones. The delimitation line between the Norwegian and the Icelandic shelf is determined by coordinates.
* As for flexibility, the Grey Zone is definitely geographically decided on, while the boundaries for the joint area can be changed if productive petroleum structures extending beyond the joint area are found.
* The function of the Grey Zone is that of an administrative enterprise for the fisheries. The joint area is a resource regime for exploration and exploitation of petroleum entailing an explicit codex for allocation of resources and costs.
* The requirements to actor-behavior in the Grey Zone are that the parties each separately respect the agreement. In the joint area active cooperation is required to make the provisions operative.
* The motivation for the establishment of the Grey Zone was the infeasibility of coming to terms on the relevance of various regional characteristics in defining the delimitation line. The joint area was set up because agreement was reached on these criteria of relevance.

These differences notwithstanding, vehement criticism was leveled against the agreements in Norway; in particular concern was voiced as to the geographical imbalance of the agreements and the precedence these could establish for the delimitation line talks for the Barents Sea. There is no doubt that the two agreements entailed substantial geographical concessions on the part of Norway. As for the Grey Zone (47,415 sq. km.), 96 percent of it is situated to the west of the Norwegian-claimed median line, and 34 percent of it (23,044 sq. km.) covers an ocean area to the west of the sector line that is undisputedly Norwegian. A mere 4 percent (2,822 sq. km.) of the zone is situated to the east of the median line in the Soviet area. Correspondingly, some 70 percent (32,750 sq. km.) of the Norwegian - Icelandic joint area is situated to the Norwegian side of the division line, while the remaining 30 percent (12,720 sq. km.) is on the Icelandic side. Additionally, areas extending beyond the joint area on the Norwegian side are to be regarded as belonging to the joint area, while this has no bearing on the corresponding areas on the Icelandic side (see Figures 5 and 7).

Norway: Worrying About Precedence

Until the Grey Zone agreement came into force there had been uniform political accord in Norway as to the Norwegian policy in the North. This "nord-politikk" was founded on the recognition that national concert yields bargaining strength. Thus, discord flared in an issue area where the political parties previously were quite flexible in order to ensure national congeniality. The opposition parties were skeptical about the Soviets ever renouncing what they had once "won" in the Grey Zone. Even if the Grey Zone agreement was not to prejudice the delimitation line talks, it was anticipated that components of the agreement could engender the expectance that additional Norwegian concessions were attainable, thus pushing the Soviet bargaining strategy towards an increasingly uncompromising stance. The Norwegian "generosity" relative to Iceland served to nourish this uneasiness even more. Among other things, it was asserted that,

> Regardless of how special the circumstances by Jan Mayen and the relationship to Iceland is, it can hardly be denied that a joint development agreement associated with the delimitation line arrangement constitutes a break with the practice established in previous agreements of this kind. This, in addition to the proposed collaborative arrangement, could encourage other parties, viz. the Soviet Union, to seek the attainment of special arrangements as parts of and conditions for agreement on the delimitation line now subject to negotiation [16].

In the criticism directed against the two agreements, two main worries have been articulated: Norway's inclination to give in on disputed territory and to embark on joint arrangements of different kinds. If the Soviets assume precedence from these instances, Norway may, according to the critics, have undermined, and even jeopardized, its own negotiating position in the Barents Sea; consequently, Norway has become the "victim" of its future "faults." The worst-case scenario looks like this: Norway surrendered all disputed areas to Iceland, and the Soviets received limited jurisdiction in undisputably Norwegian ocean territory west to the sector line. Being correspondingly benign in the negotiations on the delimitation line, the sector line could by the Soviets be depicted as a compromise between the western and the eastern delimitations of the Grey Zone arrangement. In that case Norway relinquishes the disputed area in its entirety. Furthermore, the two agreements may have encouraged the Soviets to pursue an even more ambitious policy: a combination of both a boundary coinciding with the sector line and a joint development area for resources. It cannot be ruled out that the Kremlin, given their high-politics interests in these waters, may want to increase their regional influence by not giving in on their present fishery jurisdiction west of the sector line as guaranteed in the Grey Zone agreement.

The leeway of Norwegian authorities to counter the utilization of such arguments by the Soviets in the negotiations is limited. On the other hand, it is the exclusive domain of Norwegian authorities to define and restrict their considerateness. Policy here is evident; already in 1978 Norway voiced its wish to reach a compromise solution somewhere between the median line and the sector line. This is still Norwegian policy which is, however, conditioned by four conspicuous features: the political consequences of the criticism, Norwegian practice with regard to the sector principle, Soviet malpractice in the Grey Zone, and Norwegian policy to counter a bilateralization of relations in the archipelago of Svalbard.

First of all, it is reasonable to assume that the criticism of the Grey Zone and the joint development area agreements have reduced the feasibility to Norwegian authorities of giving way to Soviet claims in any appreciable measure. The criticism has left the government politically vulnerable to allegations that it sells out on Norwegian interests and has thereby restricted the range of options available to it in the negotiations. This domestic-level sequel to international politics is presumably of greater political importance and more decisive for the developments in the Barents Sea than the precedence resulting from Norwegian geographical "generosity" [17].

Secondly, the effect of the criticism is amplified by the consistent Norwegian opposition to the sector principle over the years, in the Arctic as well as in the Antarctic [18]. An example is the Norwegian occupation of Queen Maud's Land on 14 January 1939; contrary to the other claimants on the Antarctic continent, who have claimed sovereignty over their sectors all the way in to the Pole, Norway claims sovereignty to the shoreline and the "adjacent land areas" only. How far in towards the Pole the Norwegian claim to sovereignty extends has never been clarified [19]. The reason for this is the desire not to act in a way that directly or indirectly could be interpreted as an acceptance of the sector principle. The sector line of 1926 thus appears not to be an acceptable delimitation line to Norwegian authorities.

Thirdly, the criticism leveled against the two agreements and the experiences from the "parallel jurisdiction" in the Grey Zone has reduced the likelihood that Norway will enter a Norwegian-Russian joint area arrangement of an enduring nature. Although the Grey Zone mostly has functioned according to its intentions, there have been incidents where Soviet Coast Guard vessels have inspected third-country fishermen operating in the zone by Norwegian authorization. Such events are protested against through diplomatic channels, but the repercussions extend further: they reinforce the resistance to any conceivable outcome other than that of an unsophisticated boundary line.

And last, but not least, this trend conforms to traditional Norwegian policy in Svalbard. Here the Norwegian authorities

have explicitly rejected Soviet proposals about the establishment of a special "consultation arrangement" among the two countries for the discussion of issues of significance to the development in the area. Underlying this resistance is the awareness that the Soviets might achieve a kind of "condominium" in areas subject to Norwegian sovereignty. This opposition also reflects a desire to counteract a bilateralization of jurisdictional conditions in the north [20]. Consequently, the four enlisted factors reinforce each other, making the government more vulnerable to criticism and further restrain its ability to maneuver politically.

Thus, the critics of the Grey Zone and joint area arrangement have a point when directing attention to the influence precedence from these agreements might have on the delimitation line talks. At the same time, however, the actual effect of the criticism will probably be the opposite of its intentions: the conditions necessary for Norwegian authorities to let the Soviets have it their way appear more remote today than when the previous agreements came into being. The geographical imbalances thus seem to be neutralized by the political realities produced by the criticism. This implies that the sector line as well as upshots based on the joint area idea are politically unacceptable to Norway in the Barents Sea.

Just as it is difficult for Norway to accept the sector line, it also appears to be problematic to the Soviet Union to deviate from it. Attention should here be drawn to the fact that the Soviets have not receded one inch from the sector line since the negotiations were initiated in 1974. In bargaining with Norway it appears that the Soviets have gradually inflated the sector claim at the expense of other "special circumstances." Therefore, the negotiation situation between the two countries seems deadlocked, and it is a common assumption that this will endure. This conclusion is, however, founded on the presumption that the sector claim is the ultimate Soviet negotiating position. This presumption will now be examined by discussing the Soviet attitude to the sector claim and to the law of the sea of the Arctic in general.

SOVIET ATTITUDE TO THE SECTOR CLAIM AND TO GENERAL OCEAN LAW ISSUES IN THE ARCTIC OCEAN

The Sector Claim

When the Soviet Union promulgated its Sector Decree in 1926, the claim to sovereignty comprised the islands only, not the ocean nor the ice or continental shelf within the sector. Islands already under the sovereignty of other countries, as Svalbard, were also exempt from the claim (see Figure 8). On the other hand, Soviet experts in international law have maintained that there are reasons for extending the sector claim to include the waters, the pack ice, the shelf, and the airspace [21]. These views, of which many were launched in the Stalin era, seem to represent a firmly established official Soviet policy. Official Soviet maps, in fact, depict the sector lines

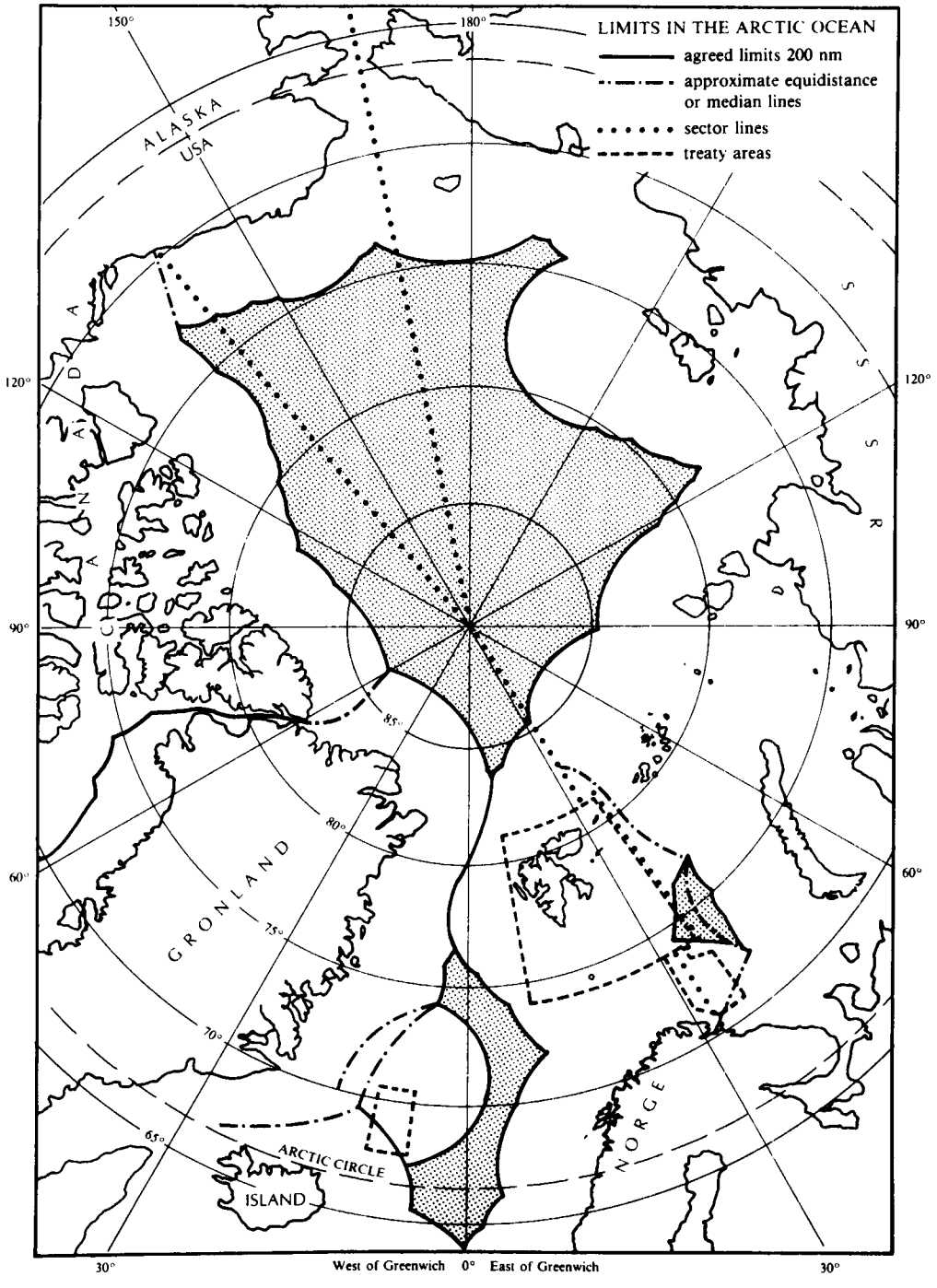


Fig. 8. Boundaries, lines and regional arrangements in Arctic Seas

as boundaries for "Soviet Arctic areas" [22]. In their negotiations with Norway, the official policy of the Soviet Union has proceeded further than their own legal experts, claiming the shelf to the east of the sector line as Soviet tenancy [23]. Incidents in recent years underscore this position; since 1969 Norway has from time to time carried out seismic research in international waters of the Barents Sea. In June 1976 the research vessel "Seisearch" was carrying out seismic soundings in the disputed area on behalf of the Norwegian Oil Directorate. A few weeks later the Soviet ambassador to Norway unofficially informed the Ministry of Foreign Affairs in Oslo about the serious misgivings of the Soviet government regarding the "Seisearch" mission. The reason cited by the ambassador was that the research had been carried out in "Soviet polar areas" [24]. A mere year later the Deputy Foreign Minister Zemskov asserted that Norway should not delude herself into the belief that the Supreme Soviet could accept an outcome in the Barents Sea deviating from the sector line [25].

Basing their conclusions on this evidence, some observers have asserted that the Soviet Union may be contemplating the extension of their sector claim for inclusion of the ocean floor, the water column, the ice and the airspace [26]. If this happens the Soviet Union will have some 43 percent of the Arctic Ocean under its jurisdiction. Soviet leaders are fully aware, however, that acting in this way they will generate a conflict they want to avoid, as they are gaining from having the tranquility and the stability of the area preserved [27]. The only circumstance conceivable prompting such an extension is that of the Kremlin perceiving its vital national interests as being threatened. As demonstrated, the Soviet Union has interests of great salience to attend to that might be affected by the division line. Given the fact that the Barents Sea is a "playground" to the Soviet Northern Fleet and a stationing area to the Delta-class submarines, it follows logically that the Soviets prefer any western activity to occur as far to the west as possible. Being realistic the Soviets cannot claim a boundary line further to the west than the sector line. It makes sense also economically; this line will be of great interest to the the Soviet Union, which urgently requires new areas providing the prospects of rich petroleum sources. It is commonly held that their oil production has all but peaked. The increase in Soviet oil production has been less than one percent annually over the last two years, and this year's production is not expected to grow at all. The total demand for oil -- from internal consumption, hard currency needs, and commitments to Eastern Europe -- is nevertheless increasing. So, even with a successful substitution policy the Soviets will without doubt be looking for alternative sources of supply [28]. In the eastern part of the Barents Sea, the disputed area included, the prospects in this respect are held as favorable. Assuring these areas for the state will benefit Soviet economy to a considerable degree. The sector line ensures that a maximum of this area is in Soviet hands. In addition, in the disputed area

there are also fishing grounds crucial to Soviet fisheries. All in all there are several arguments supporting the view that the Soviets in certain circumstances might consider claiming sovereignty over the area east to the sector line.

This way of reasoning does not take account of the variations in Soviet behavior in the Arctic Ocean as regards international law. The opposite conclusion is also aired, viz. "... sector claims in the Arctic can no longer be taken seriously" [29].

Soviet Behavior and Ocean Law in the Arctic Ocean

Apparently, there is no agreement among Soviet experts on international law as to the interpretation of the sector principle. A noticeable fact is that an international law textbook, edited by Professor Kozhevnikov in 1961 and published under the auspices of the Academy of Sciences of the USSR, restricts the application of the polar sector to lands and islands [30]. This applies also to a publication from the Ministry of Defense of the USSR, Manual of International Marine Law, intended as a guide for Soviet navy officers [31]. It is a notable feature that these books, contrary to those previously referred to, have an operative function; that is, they provide instruction for pragmatic action, the textbook serving the education of future lawyers, the manual guiding practical behavior. In this context it is Soviet practice that is interesting; a closer examination of the legislative practice of Soviet authorities in the Arctic Ocean since UNCLOS III commenced in 1973 is thus needed.

In December 1976, the Presidium of the USSR Supreme Soviet enacted an edict establishing a provisional 200-mile fishing zone comprising the marine areas north to the Eurasian coast (see Figure 9). In the preamble to the December edict it is stated that the Soviet Government acted with reluctance, noting "... that recently an even greater number of states, including those neighboring the USSR, are establishing "economic and fishing zones" without waiting for the conclusion of an international convention being worked out at the United Nations Conference on the Law of the Sea." Hence, the edict formally designated a "provisional measure," pending an international convention regulating living marine resources, to remain in effect "until the adoption, taking into account the work of the Third United Nations Conference on the Law of the Sea, of another legislative act defining the regime of the maritime areas concerned" [32].

The reference to UNCLOS III does not appear to entail that the Kremlin intended to ignore international law by regulating its "own" part of the Arctic Ocean. On the contrary there was an uneasiness about others forestalling the course of events by putting into effect measures still not codified. In the December edict it is thus important to notice that while the boundary to the east is given a clear-cut and unambiguous definition, by explicit reference to the boundary established in the 1867 agreement between the U.S. and Russia, there is no

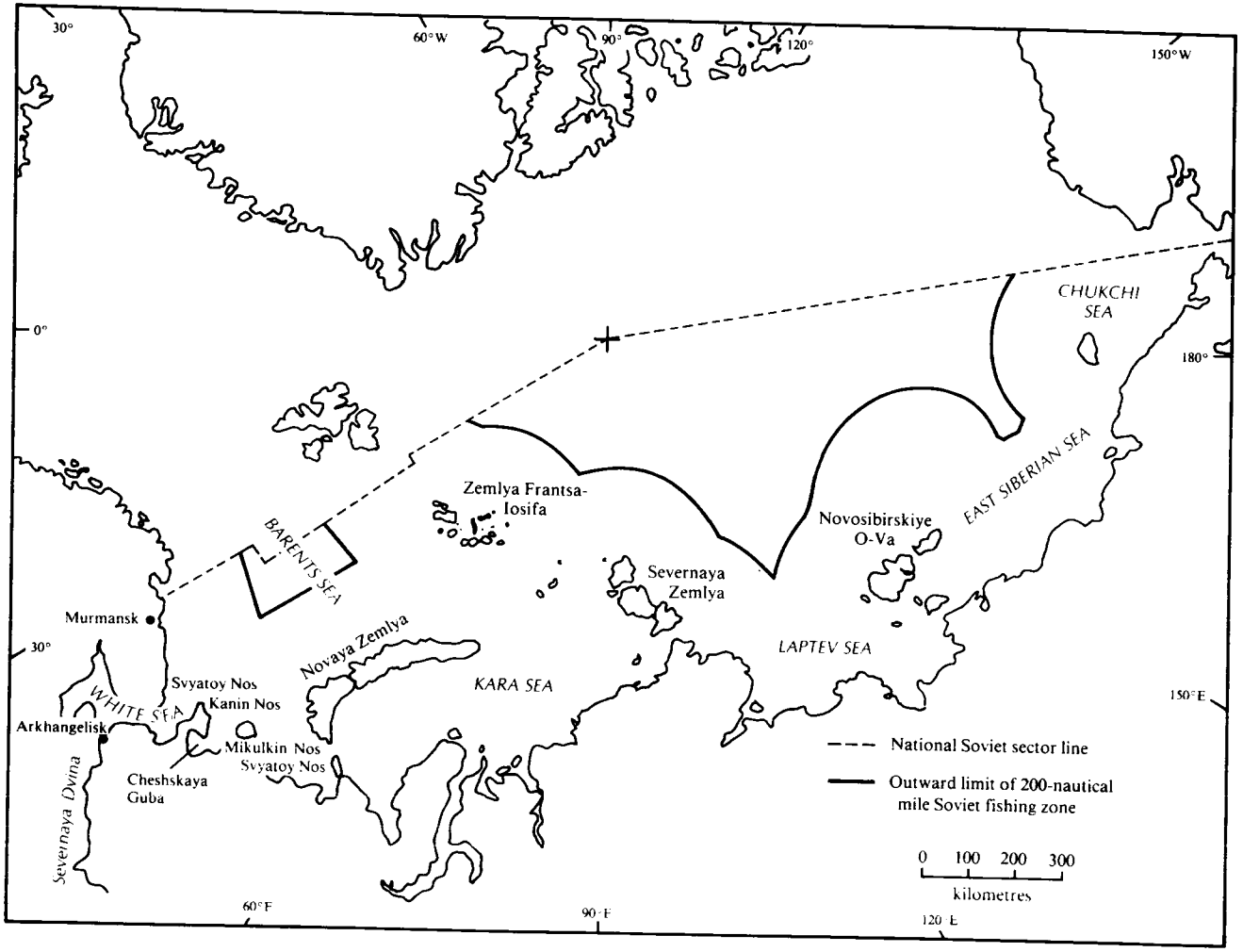


Fig. 9. The outward limit of the 200 mile Soviet fishing zone

well-defined boundary in the Barents Sea. Here, the boundary issue, as such, remained unresolved.

This is interesting when considering the situation in the Beaufort Sea, where Canada has availed herself of the 141st meridian as the western boundary for its jurisdiction (see Figure 8). This meridian which constitutes Canada's western sector boundary has been the basis for among other things the issuance of oil and gas concessions since 1965, for the definition of "Arctic waters" in the Arctic Waters Pollution Prevention Act of 1970, in the Ocean Dumping Control Act of 1975, and in the Exclusive Zone of 200 nautical miles [33]. It thus appears to be less of a problem to the Soviet Union to deviate from the sector line in the Barents Sea than for Canada to deviate from the sector line in the negotiations with the U.S. in the Beaufort Sea. The point in this context is that the December edict does not refer explicitly to the sector claim and thus leaves the boundary question unresolved. Therefore it is alleged that these declarations on sovereign rights over fish and living resources would "... have been redundant if the Soviet Union had stuck to the sector principle as being applicable to ocean space" [34].

On 28 February 1984, the Soviet Union enacted a 200-mile economic zone to replace the provisional fishery zone of March 1. This occurred one and a half years after the new Law of the Sea Convention was submitted for ratification and was in accordance with its regulations. When it comes to the delimitation of the zone to the zone of adjacent states the law is rather vague. Article 1 reads:

> ... the delimitation of economic zones between the USSR and states whose coasts are adjacent to the coast of the USSR ... is carried out with regard to the legislation of the USSR through agreements on the basis of international law with the aim of achieving a just decision [35].

Here no reference is made to the agreement of 1867 as in the case of the interim fishery zone arrangement. The reference made to the 1867 agreement in the fishery zone act derived from the fact that the U.S. had earlier notified the Soviets that the agreement of 1867 gave the U.S. sovereign rights and jurisdiction over living resources in the waters of the Bering Sea out to the treaty line [36]. Consequently, the Soviets did nothing but follow the American practice, the latter having created "precedence-effects" in the same area. The law of February 1984 is in force also on the continental shelf. In this respect there was no corresponding clarification among the two countries. The delimitation question thus remained unresolved, in spite of the fact that:

> ... their (the U.S. and the USSR) mutual utilization of the 1867 line for fishery zone delimitation is ample evidence that the 1867 line applies to the

> continental shelf, as the connection between non-living natural resources in the continental shelf and the "territory and dominion" ceded by the 1867 treaty appears even stronger than the connection between the ceded "territory and dominion" and living natural resources in the sea, which are moving in and out of the area, uncontrolled by the state claiming jurisdiction over them. Neither state has demonstrated interest in seeking alternative boundary arrangements, presumably because of the support for this line provided by customary international law. The U.S. Department of the Interior has on Bering Sea area tract maps unequivocally stated that it regards the ... 1867 Convention Line as the limit of its continental shelf ... [37].

On the background of this evidence, it can be argued that the Soviet Union has demonstrated great caution in the relationship to the U.S. on the boundary issue. Here they apparently await an explicit " ... agreement on the basis of international law with the aim of achieving a just decision." A corresponding approach seems to be the case in the Barents Sea; the Grey Zone, a fishery-administrative arrangement, could serve as a boundary zone for the economic zones which also comprise the shelf. The vagueness in the new Soviet law can therefore be interpreted as an expression of the Soviets awaiting the unfolding of the course of events, seeking to avoid provoking their neighbors with measures contrary to conventional ocean law. This argument is valid also for the Kremlin's attitude to the legal situation in the ocean areas outside their territorial waters, but inside the sector.

The present policy of the Soviet Union evidently recognizes the high-sea status of the Arctic Ocean and its airspace. The Soviet Union has, for instance, not treated the Canadian sector as inviolate; manned Soviet drifting stations have drifted into the Canadian sector, and aircraft have on several occasions landed on ice floes between the Canadian archipelago and the North Pole. Conversely, the Soviet government has not protested against the operations of U.S. submarines in the Soviet sector since these missions started in 1957, nor did they act in October 1967 when a U.S. ice station drifted into the same waters [38]. Thus it is reasonable to assume that the Soviet Union acts in accordance with established and developing international law in the Arctic. Consequently, the sector theory as advocated in the past by the Soviet Union may apply to the land and islands within the sector, but not to ocean space.

Hence, the Soviet conduct on these boundary line issues is in accordance with their counterparts' initial position. The measures they implemented during and following the UNCLOS III is within the framework of existing or evolving ocean law. Their conduct in the sectors of others, and their lack of diplomatic reactions to other nations' activity in the Soviet sector, indicates that they consider the ocean areas outside their

national ocean areas as mare liberum. An exhaustive appraisal indicates that the Soviet Union to a large extent acts within the framework of conventional ocean law in considering the rules of conduct for the Arctic Ocean.

The Different Positions and Some Thoughts as to the Way Out of the Barents Sea Deadlock

The two perspectives on Soviet policy on the delimitation issues engenders this image: The Soviets stand firmly by a claim having no authority by international law, while they at the same time in practical action operate within the framework of commonly accepted rules of conduct. How is this behavior to be understood? We cannot provide a decisive answer, but some reflections on motivations and purposes might clear the table:

The caution the Soviets have demonstrated on the delimitation issue vis-a-vis Norway and the U.S. reveal that they eschew confrontation [39]. The minimum requirement for avoiding conflict is that the final solution is within the framework of commonly recognized rules of law. The sector principle does not constitute such a basis, as the Soviets have learned during ten years of negotiations with Norway and by various diplomatic reactions from the Americans. They have also in their own legislation confirmed the precedence of conventional ocean law to regulate the Arctic Ocean. What function, then, does the insistence on the sector line have in this context?

The negotiations on the dividing line in the Barents Sea coincided with the initiation of the UNCLOS III. The intention of UNCLOS III was to construct a new "common law" for the exploitation of the oceans; old rules of law were to be reconsidered and revised or replaced by new ones. This pertained also to the criteria for the dividing of the continental shelf between adjacent states. The then existing rules of law served the Norwegian interest in the Barents Sea better than those of the Soviet Union. The evolution of ocean law could, however, improve the Soviet negotiation basis by orienting the revision of the criteria in a direction favoring Soviet interests to a larger extent. From this perspective, the Soviets had everything to gain and nothing to lose by biding their time. Only by standing firm by the sector claim during the 1970s could they block a solution of the issue of the dividing line. Meanwhile they could await the developments in ocean law which they themselves were in a position to influence. As demonstrated, the trend went in their favor by the recognition of the equitable solutions as the criterion for delimitation. The conspicuous question at present is whether it is reasonable to interpret the equitable principle to comprise the sector line or not. On this issue there will be diverging opinions among the parties, but what they may agree to is that taking account of the sector line as a special circumstance is more equitable today than ten years ago. Thus the irreconcilable Soviet adherence to the sector line position in the Barents Sea might have had a political function during the

1970s. If this is correct, a new groundwork for genuine negotiation between the two countries is established.

The insistence on the sector line has not served as an instrument in filibuster tactics only; it can also be perceived as a "signal" as to what interests are "at stake" and thereby indicate the urgency to the Kremlin of reaching a solution securing these interests. The sector line will, as demonstrated, grant a maximum security-political gain by driving the Western powers as far west in the ocean as feasible, and also ensure a maximum return of natural resources. Thus, the main function of the sector line is that of a political signal of interests, rather than as a posture towards international law. In Soviet eyes it is a decisive advantage to have the dividing line coincide with the sector line. Therefore, they will presumably persevere in working for this outcome. The prospect of "exhausting" the Norwegians and arrive at a Soviet maximum solution may still entice the minds of the politicians in the Kremlin. That does not imply, however, that other solutions also taking Norwegian interests into account cannot be accepted in Moscow. Neither is it so that future developments in the Barents Sea will be on Soviet terms only. The Soviet Union also depends on having the tension in the area eased; among other things their local defense and economic interests substantiate this view. Any escalation of the level of conflict in the region would undoubtedly affect these interests. Unresolved questions of international law provide a fertile soil for tensions to grow in; therefore the interest of the Soviet Union in this case is to restrain themselves, and strive for a conclusive solution in the Barents Sea. Their recently stated desire for a development of Norwegian-Soviet cooperation on the exploration of the energy resources in the area adds to this picture. Two rather compelling reasons tell why the Soviets should want such a cooperation: their own lack of sufficient oil drilling technology and the fact that the western part of the Barents Sea is less ice-bound than the eastern part. If the Soviets are to contribute to a joint enterprise, they cannot drive their cooperation partners away, thus jeopardizing their own interests. The experiences from the joint area demonstrate that no collaboration can be initiated before the legal issues are resolved. If this advancement strategy is also selected for the Barents Sea, it means that the dividing line comes first, then comes cooperation. It is a noticeable fact that Norway has plenty of time for the exploitation of petroleum in the Barents Sea as it, in contrast to the Soviet Union, has abundant petroleum supplies in other parts of its shelf. Postponing the development of the oil and gas fields in the Barents Sea thus causes no national privation.

There is reason to believe that ten years of negotiations without reaching an agreement can induce the Soviets to abandon their ambition of a maximum solution, and instead go for an optimal solution where the interests of both countries are attended to in an equitable and balanced way. An optimal solution presupposes that none of the parties have to renounce

their present principal positions and that both adapt to the fact that the interests of both parties must be taken into consideration. That means that Norway must get a breakthrough for the dividing line not to coincide with the sector line, and that the Soviet Union get a breakthrough for having the boundary drawn as far west in the ocean as possible, keeping the Norwegian point of departure in mind. Of course, it remains to be seen whether this is politically feasible. Some thoughts on this feasibility, and on the feasibility for the Norwegians getting the deadlocked negotiations going again, are warranted.

TRADITIONAL NORWEGIAN POLICY AND HYPOTHETICAL FUTURE NORWEGIAN CONTRIBUTION

We are highly skeptical about the allegation that the delimitation arrangement for the Norwegian-Icelandic joint area should create a precedent for the negotiations in the Barents Sea. The reason is that a possible precedence effect is likely to be neutralized by domestic level political factors in Norway (the opposition against the agreements, the traditional Norwegian opposition to the sector principle, resistance to bilateralization in the North, and Soviet malpractice in the Grey Zone). There is, however, something to be learned from the negotiations on the joint development area that in turn can prove useful in the Barents Sea: the decision to link several issue areas in order to arrive at a integrative and comprehensive solution and the decision to take into account "Iceland's strong economic interests, the existing geographical and geological factors and other special circumstances," in the set up of the arrangement [40]. The Jan Mayen dispute resulted in two agreements, one for the fisheries and the other for the continental shelf, both involving a joint development of resources. These were the outcomes of a two-stage process, each of the agreements resulting from separate negotiations. Nevertheless, they were integrated -- each refers to the other, thereby constituting an interlinked, comprehensive set of agreements on resource development in the area pertaining to both mineral and living resources. A wide range of "special circumstances" was also taken account of in this arrangement, ranging from security considerations to concerns for Nordic cooperation [41].

This policy is distinct from the policy adhered to by Norwegian authorities in the Barents Sea. Norway, which in this connection defines "special circumstances" in a restricted way, has several unresolved issues in its relations with the Soviet Union in these waters. In addition to the dividing-line issue, the two governments disagree on the interpretation of the Svalbard Treaty of February 9, 1920. This discord has direct consequences for the legal situation in the ocean and on the ocean floor surrounding the archipelago. We shall pay closer attention to some of these questions and discuss the feasibility of linking them to the dividing-line negotiations.

The Svalbard Treaty of February 9, 1920

When the Svalbard Treaty was signed in Paris on 9 February 1920, the states having major interests in Svalbard [42] had agreed to recognize Norway's full and unrestricted sovereignty over the archipelago [43]. This recognition, however, was not without its quid pro quo. In the first place, signatory powers reserved the right to most kinds of economic activity on an equal footing with Norwegian nationals. This right was to apply to fishing, trapping, and all kinds of maritime, mining, industrial and commercial activity [44]. No nationality was to enjoy special favors; all were to be treated equally and to have equal economic rights [45].

The right of Norwegian authorities to dispose of taxes, duties, and dues levied in the island as they thought fit was also restricted. Revenue of this nature is to be spent exclusively for the benefit of Svalbard and should only be levied to the extent warranted by such requirements [46]. In addition, Norway had to pledge herself not to establish -- or allow the establishment by other nations of -- any naval base or fortifications in the Svalbard area. The archipelago, which was thus demilitarized (Article 9), was never to be used for warlike purposes [47]. In other words, Norway received a very special and highly restricted sovereignty over the archipelago. The interpretation problem in this context is that of whether the restrictions on sovereignty also should be effective at sea. The problem is actualized as to the question of what regime should apply

* on the continental shelf around Svalbard, and
* in the fishery protection zone in the same area.

The Legal Status of the Continental Shelf Surrounding Svalbard

The problem is whether the shelf shall enjoy a regime in accordance with the provisions of the Continental Shelf Convention of 1958, or in accordance with the provisions of the Svalbard Treaty of February 9, 1920. In both cases the shelf will remain under Norwegian sovereignty, but under the Treaty citizens of all signatory powers will have access to the area and its resources on an equal footing with Norwegians, and Norwegian sovereignty will be more restricted than under the Shelf Convention. The position of the Soviet government is that the Svalbard Treaty is the basis for Norwegian sovereignty, while Norway argues that the provisions of the Continental Shelf Convention must apply. The U.S. and other Western powers have reserved their judgment on this issue.

In the opinion of Norwegian authorities, the restrictions on sovereignty stated in the Svalbard Treaty cannot be given an extended interpretation. They are final and apply to the areas explicitly mentioned in the Treaty only. The continental shelf and the sea beyond territorial waters are not mentioned in the Treaty. The only reference to the sea is found in Articles 2 and 3, where territorial waters are mentioned in connection with fishing and maritime interests. In other words, the scope of

the Treaty is here extended to cover territorial waters, which in 1971 were fixed at four nautical miles. The areas beyond territorial waters are therefore subject to Norwegian sovereignty in accordance with the provisions of the Continental Shelf Convention and not with those of the Svalbard Treaty [48].

The Fishery Protection Zone

This issue touches upon the same basic problem as the one concerning the legal status of the shelf, namely whether or not the Svalbard Treaty applies beyond Svalbard itself and its territorial waters. Norway rejects that the Treaty applies by using the same line of reasoning as with the shelf. The Soviet Union has refused to recognize the legal validity of the zone by direct reference to the Svalbard Treaty.

The zone is non-discriminatory in the sense that foreign fishermen are allowed to fish there provided they comply with the regulatory measures enacted and the catch quotas agreed upon. The decision to make the zone non-discriminatory should, however, not be mixed up with the principle of equal treatment in the Svalbard Treaty. As mentioned, the Svalbard Treaty, in the view of the Norwegian government, does not apply beyond four nautical miles. The corollary of this view is that Norway, whenever the circumstances dictate, may convert the zone into a discriminatory or full-fledged economic zone [49]. While this has not been considered a realistic approach thus far, it has to do among other things with the objective of the zone -- protection of the breeding grounds of important species of fish from over-exploitation. That objective may be achieved by means of quotas, not by reducing the number of foreigners.

Norway and the Soviet Union thus have three unresolved issues of international law in the Barents Sea:

* the regime to apply on the continental shelf,
* the fishery protection zone, and
* the delimitation line.

All three to a larger or lesser extent affect their interests in the area. The question then, is whether these interests can be simultaneously attended to in a comprehensive integrated solution similar to the one arrived at in the Jan Mayen area. In other words: do we have a clusterproblem or a cluster of problems?

A Clusterproblem or a Cluster of Problems?

From a legal, technical and formal point of view the listed issues are distinct problems to be dealt with in separate fora. Some problems concern the administrative and legal status of the ocean floor, others the jurisdictional handling of the water column; some concern the regulation of activities pertaining to minerals, others the allocation of living resources; some have to do with military strategy, others with peaceful exploitation of natural resources; the topics are varied and different both in character and content. Nevertheless, the Norwegian

government has realized that the different issue areas make up an interconnected complex of problems woven together with security considerations and spillover effects. Hence, unfortunate dispositions in one issue area may generate impediments to the handling of others and be to the detriment of the general political relationship among the two countries, and potentially between the blocs. The superior goal of the Norwegian government in the North is to preserve stability and tranquility, and to avoid moves liable to engender international conflict.

When Norway in June 1977 established the fishery protection zone around Svalbard, the government paid particular attention to the following needs: protection of the living resources in the vulnerable Arctic environment, the interpretation of the Svalbard Treaty, the Norwegian viewpoints with regard to the legal status of the shelf surrounding Svalbard, the conceivable reactions of other governments, and to the strategic significance of the area [50]. Likewise, in deliberating the legal status of the shelf, the government gave considerable thought to the implications of the various policy options before settling on a course. For instance, to counteract a possible suspicion that the future activity on the shelf was to serve military purposes, the foreign minister officially emphasized that the activity on the shelf was to be guided by civil, peaceful, and ordinary economic principles under firm Norwegian management and control. The government also acknowledges that the Soviet presence on Svalbard, besides economic considerations, is motivated by " ... the strategic location of the archipelago and a wish to observe that developments do not run counter to Soviet interests" [51].

As for Norway, the outstanding issues are treated as a cluster of problems, while the Soviet Union may be more inclined to regard them as a clusterproblem. These differing perceptions may complicate the resolution of "hot" issues.

Problems of Solution: Concluding Remarks

Due to these problem constellations, the two parties' perceptions as to what constitutes a favorable outcome might be considerably affected. We know that Norwegian authorities insist on treating each issue in separate fora, disconnected from each other. It is also a fact that the Soviets thus far have accepted this philosophy and procedure. It is, however, known that Soviet diplomats informally have expressed views that can be interpreted as favoring a package deal. This viewpoint has also been put forward in the public debate in Norway [52]. Let us therefore look into this possibility in some more detail.

The content of the package should be that the Soviets temper their resistance to the Norwegian position on the exercise of authority on the Svalbard shelf and in the fishery protection zone, having the recognition of a dividing line closely approximating the sector line in return. From the Soviet point of view this outcome has several advantages: in the first place, a division of the Barents Sea shelf along the

sector line will ensure the Soviets national control over the bulk of the petroleum in the region. As indicated, the eastern part of this shelf, of which the disputed area makes up a considerable portion, is the more promising as regards the exploitation of oil. If the dividing line for the fishery coincides with the shelf line, as suggested by Norway, the Soviets will also acquire important fishing grounds. This dividing line will also serve the security interests best in that it drives the Western presence as far to the west as can be realistically hoped for. In the second place, Norway, for years demonstrating her understanding of Soviet security interests in the North [53], will be in a position to supervise any foreign presence in the Svalbard waters. The Svalbard Treaty allows nationals of the signatory states unrestricted access to search for resources. Only by governing the continental shelf and the fishery protection zone surrounding Svalbard in accordance with international continental shelf law will Norway be in a position to restrict access and regulate this presence.

On the other hand, lumping together several disputed issue areas in this way means that Norway will have to abandon its policy of refusing a package deal. At the moment there is scant evidence suggesting that a reappraisal of this policy is considered in Norwegian policy quarters. Nevertheless, a package deal can also be to the benefit of Norwegian interests. First of all, by simple calculus it is evident that the essential precondition for Norway in considering adaptation to Soviet requirements is that the Soviets recognize and accept the Norwegian position in two potentially conflict-laden problem areas. Secondly, resolving all outstanding issues is by itself a contribution to preserve the stability and peace of the region, the ultimate end of the Norwegian policy. As long as conclusive dividing lines are not drawn, legal uncertainty may provoke conflicts. Thirdly, it can be argued that as long as the question at issue remains unresolved the parties, Norway in particular, will need consultations and negotiations in order to avoid episodes likely to increase tensions. This may cause a bilateralization and enable the Soviet Union to influence the developments in the "Norwegian" part of the Barents Sea as well. This benefits the stronger party only and is contrary to Norway's postwar policy of avoiding a bilateralization of the Svalbard issues. Lastly, the parties will have reached a compromise solution between the median line and the sector line. Thus viewed, the outcome is within the bounds of what Norway can possibly find acceptable. Norway will indeed, if this is the outcome, have ceded considerably more of the disputed area than the Soviet Union has. This geographical "generosity" is, however, compensated by the Soviet recognition of and compliance with Norwegian provisions on the shelf and in the fishery protection zone surrounding Svalbard. A significant aspect of this solution-concept is that it does not require Norway to accept the sector line, while it at the same time appears to take account of the assumed Soviet claim of having the boundary drawn as far to the west in the ocean as politically feasible

[54]. This solution-concept can be visualized in a matrix (see Figure 10).

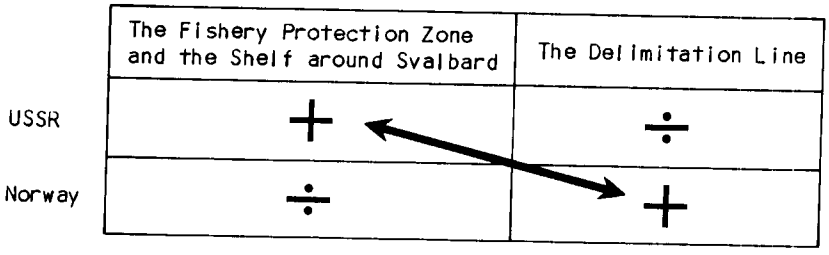


Figure 10: A Solution Concept for the Delimitation of the Barents Sea

Norway has something to offer the Soviet Union concerning where to draw the delimitation line (+), while the Soviet Union has something to offer Norway within the fishery protection zone and on the shelf around Svalbard (+). The offers at hand are what the other party is in need of (-). By linking the offers, the needs might be satisfied (double arrow), and the boundary settled.

What are the Prospects for an Integrated Solution?

To what extent, then, is it plausible that Norway will orient its negotiation strategy towards a package deal? As demonstrated, Norwegian authorities have not publicly made such intentions known. We do, however, take it for granted that they want an outcome within the political confines they have themselves defined -- that is, a compromise between the median and the sector lines. This outcome is a precondition for a package deal to materialize. Further, we take it for granted that the paramount question at issue does not concern the mode of achieving an outcome but the actual attainment of it, the content of the agreement being the more important feature. If the authorities come to consider a shift of policy to yield substantive results, and national prestige does not gain the upper hand during negotiations, such a shift is definitely feasible. It will not come, however, if Oslo perceives the counterpart to appear as not gaining from the policy change -- there will be no changes for the sake of change.

The Soviet Union has not officially revealed concern for the idea that an alternative arrangement for the negotiations might get the deadlocked talks moving. As previously stated, however, Soviet diplomats have in informal contexts expressed views that can be interpreted as favoring a package deal. Hence, it is not evident that a Norwegian initiative, if it comes, will fall on "stony soil." Both parties appear to gain from having a conclusive solution, and both have to ease off in order to reach a compromise. It is a noticeable fact that it is primarily the Soviet Union that is pressing for Norwegian-Soviet cooperation in the Barents Sea; it is also the Soviets that most

urgently need to get on with exploring for oil. Such factors surely enhance the readiness for compromise. Deviating from the sector line, which mainly has served a political function in the negotiations with Norway, then appears to be politically feasible to the Soviet Union. Hence, there is reason to believe that each of the parties has a better hand in this game than the cards put on the table thus far indicate.

NOTES

1. Regional arrangements as defined in treaties, conventions or other types of bilateral agreements, may vary from areas of joint developments and jurisdiction between two or more states, to areas of national jurisdiction and development based on established borders. For a discussion on regional sea arrangements see: Lewis M. Alexander: "Regional Arrangements in the Oceans", in American Journal of International Law, Vol. 71, 1977, pp. 84-109.
2. See for instance Egil Bergsaker, "Arctic Experiences", NPD-contribution No. 15, Oil Directorate, March 1984.
3. Talk made by Tsjingiz G. Sattarov, Chief expert (advisor), GOSPLAN, at the Fridtjof Nansen Institute, 14 June 1984.
4. Ibid.
5. See Willy Ostreng, The Soviet Union in Arctic Waters. Security Implications for the Northern Flank of NATO. Study R:013/2, 1984 of the Nansen Institute. This study is to be published as an Occasional Paper by the Law of the Sea Institute, University of Hawaii.
6. See Willy Ostreng, Politics in High Latitude. The Svalbard Archipelago, McGill-Queens University Press, Montreal, 1978, Chapter 6.
7. Arseni Golovko, With the Red Fleet. The War Memories of Admiral Golovko, London 1965, p. 40.
8. For a discussion of this policy see John Kristen Skogan and Anders Sjaastad, "Avskrekking eller beroligelse: Betydningen av Norges selvpalagte restriksjoner i lys av den militaer-strategiske utvikling i Barentshavet," og Finn Sollie and Willy Ostreng: "Betydningen av Svalbard-traktatens artikkel 9 i relasjon til den militaerstrategiske utvikling i Barentshav-Svalbardomradet," i Internasjonal Politikk No. 4, October/November, 1977, pp. 613-691.
9. See Harald Kjolaas, "Forhandlingene om den gra sonen" i Norsk utenrikspolitisk Arbok, 1977, pp. 31-71.
10. The agreement offered Iceland substantial advantages. Inter alia, Norway was to have access to a catch of 15 percent of the total quota of capelin in her own Jan Mayen zone annually up to 1984. Iceland was granted a corresponding share in the Norwegian zone. The agreement goes on to state that the parties shall jointly lay down

the total quota for capelin catches in their entirety. Should disagreement arise between the parties, Iceland is to decide on the quota on her own. Norway may only refuse to be committed to the total quota if the figures arrived at are regarded as clearly unreasonable. Thus in theory, in the light of this provision, Norway may be bound by Icelandic decisions. For a further discussion of the content of this agreement see Willy Ostreng, "Reaching Agreement on International Exploitation of Ocean Mineral Resources. With special references to the joint development area between Jan Mayen and Iceland" in Energy, Fall edition, 1984.

11. Report and Recommendation to the Governments of Iceland and Norway of the Conciliation Commission on the Continental Shelf Area between Iceland and Jan Mayen, of June 1981, Washington, p. 3.
12. Ibid., p. 10.
13. Ibid. Section V: "The Area Between Jan Mayen and Eastern Iceland. A Geological Report"., pp. 12-25.
14. See Jens Evensen, "La Delimitation du Plateau Continental entre la Norvege et l'Islande dans le Secteur de Jan Mayen", in Annuaire Francaise de Droit International, XXVII, 1981.
15. This arrangement further entails that Iceland in the area north of the dividing line is entitled to participate with a share of 25 percent in the exploitation and exploration of petroleum resources. Norway has a corresponding right in the Icelandic section. Norway is, furthermore, to defray all expenses in connection with seismic and magnetic investigations during the first phase of exploration. This applies to exploration on the shelves of both countries. In the case of subsequent exploration it is expected that both Icelandic and Norwegian costs accruing in the Norwegian sector of the area will be defrayed by the company allotted a concession for exploitation. The Icelandic government, for its part, is not under any obligation to attempt to achieve a refund of Norwegian costs in the Icelandic section of the joint area. The expenses involved in this case are those accruing up to the time when commercial finds have been declared.

    Furthermore, the agreement states that if the expenses involved in investigations in the Norwegian sector of the area are not defrayed by the country concerned, the Norwegian authorities, should they so desire, may continue exploration without Icelandic cooperation. Should Norway make a commercial find, however, Iceland may participate with her share in return for making good the portion of the accrued expenses that Iceland would have paid had she participated from the outset. In this way Iceland will avoid the risk of expenses in the event of abortive investigations. Norway has no corresponding right with regard to activities in Iceland's sector of the area.

16. See Finn Sollie, "Jan Mayen sonen - forhandlingene med Island," Internasjonal Politikk, No. 3, 1981, pp. 383-406.
17. An interesting discussion as to the domestic foundations of international politics, the importance of which is fundamental for the argument advanced here, is offered by Bruce Andrews: "In a certain domestic context a societal future will specify the motivation behind the direction of foreign policy -- in other words, policy's 'point.'" "We will need to uncover the weighted configuration of domestic interests that is implicated by the nation's international purposes ..." B. Andrews: "The Domestic Content of International Desire", in "International Organization" 38, Spring 1984.
18. For a detailed discussion of this opposition see: Odd Gunnar Skagestad, Norsk Polarpolitikk. Hovedtrekk og utviklingslinjer 1905-1974, Oslo 1975.
19. See Per Antonsen, Ressursforvaltningen i Antarktis -- Konflikt eller samarbeid, R:009-1984 in the Publication Series of the Fridtjof Nansen Institute.
20. See supra note 6.
21. Korovin in 1926, Sigrist in 1928, Lakhtine in 1928 and Vyshnye polsky in 1952.
22. S. M. Olenicoff, "Territorial Waters in the Arctic. The Soviet Position," R-907 ARPA, July 1972, The Rand Corporation.
23. See Willy Ostreng, "The Continental Shelf. Issues in the "Eastern" Arctic Ocean. Implications of UNCLOS III, with special reference to the JCNT" in J. K. Gamble, ed., Law of the Sea: Neglected Issues, Honolulu, 1979, pp. 165-182.
24. See Kim Traavik and Willy Ostreng: "Security and Ocean Law. Norway and the Soviet Union in the Barents Sea," in Ocean Development and International Law, Vol. 4, No. 4, 1977, pp. 343-369.
25. Klassekampen (Norwegian left-wing newspaper) September 10, 1976.
26. See supra note 16.
27. This viewpoint is elaborated a bit further in Willy Ostreng, "Norwegen und die Sowjetunion in der Barentssee", in Europa Archiv, 35 Jahr, 23 Folge, December 10, 1980, and in Willy Ostreng, "Huippuvuorten kansainvalinen asema -- poliittisia ja oikeudellisia nakokotitia" in Ulkopolitikka, No. 1, 1977, pp. 10-18.
28. J. P. Stern, "Western Forecasts of Soviet and East European Energy Over the Next Decades (1980-2000), in JEC (1981).
29. Uwe Jenisch, "The Arctic Ocean and the New Law of the Sea", in Aussenpolitik, No. 2, 1984, p. 208.
30. See Donat Pharand The Law of the Sea of the Arctic with Special Reference to Canada, Ottawa, 1973, p. 125.
31. Barabolya, Bakhov, Ivanaschenko, Kolesnik, Logunov, Melodtsov and Nasinovskiy, Manual of International Maritime Law, Ministry of Defense, Moscow, 1966, p. 269. English translation.

32. William Butler, "Soviet Fishery Jurisdiction in the Arctic" in Polar Record, Vol. 18, No. 117, 1977, pp. 575-579.
33. Uwe Jenisch, op. cit., p. 213.
34. Ibid., p. 208.
35. Robert Krueger, "Bering Sea Petroleum: A New Meeting Ground by the Soviet Union and the United States," paper presented on the Second Workshop of the Geology and Hydrocarbon Potential of the South China Sea and Possibilities of Joint Development, August 22-26, 1983, East-West Center, Honolulu, Hawaii.
36. Unofficial translation of "The Presidium of the Supreme Soviet Decree Establishing a 200-Mile Maritime Economic Zone, in Vedomosti Verkhovuogo Soveta, No. 9 (2239), 29 February 1984, pp. 174-180.
37. Ibid.
38. See Willy Ostreng, Polhavet i internasjonal politikk, Chapter 2, Publication Series of the Nansen Institute, AA:H012, 1978.
39. The Soviet cautiousness and risk aversion is well-known. For a telling portrayal of the Soviet psyche and its historical foundation, see J. M. Joyce, "The Old Russian Legacy" in Foreign Policy, 55, Summer 1984.

    Issue linkage has been a frequently used strategy during the UNCLOS III: for a description and analysis elucidating the intricacies of such strategies, see J. Sebenius, Negotiating the Law of the Sea, Harvard University Press, 1983.

    The concept of "linkage" we understand to denote " ... a state's policy of making its course of action concerning a given issue contingent upon another state's behavior in a different issue area." For a thorough-going discussion of this definition, see A. Stein, "The Politics of Linkage" in World Politics 32, 1980.
40. The use of linkage strategies have their pros and cons: As for the former, Tollison and Willett have in an excellent article demonstrated the increase in cooperation potential that can be gained this way: "Our theory stresses issue linkage as a means of overcoming distributional obstacles to international agreement where direct side payments among countries are not a politically feasible alternative." Fisher, on the other hand, sounds a note of caution: "The joining of issues as leverage or bargaining currency even when constructively looking toward a negotiated agreement, tends to shift the focus away from the merits of a problem and to put relative bargaining power at issue." Robert Tollison and Thomas Willett, "An Economic Theory of Mutually Advantageous Issue Linkages in International Negotiations," in International Organization 33 (Autumn 1979). Roger Fisher, "Fractionating Conflict" in International Conflict and Behavioral Science: The Craigville Papers. Ed. Fisher. New York Basic Books 1964.

41. See Willy Ostreng, supra note 10, for a discussion of the background and reasons for the integrated solutions of the joint development area.
42. The U.S.A., France, Italy, Japan, Denmark, Great Britain, the Netherlands, Sweden, and Norway.
43. Article 7 of the Svalbard Treaty.
44. Ibid, Articles 2 and 3.
45. Ibid., Articles 2, 3, 4, 7, and 8.
46. Ibid., Article 8.
47. Ibid., Article 9.
48. See Jens Evensen, "Oversikt over oljepolitiske sporsmal," betenkning utarbeidet etter oppdrag av industri-departementet, January, 1971, and Stortingsmelding no. 39, 1974-75, concerning Svalbard.
49. See Carl August Fleischer, "Grensene i havet," in Hakon Borde, ed., Svalbard og havomradene, i serien By og bygd i Norge, Oslo, 1953, pp. 227-254.
50. UD-informasjon, No. 25, 13 July 1977.
51. Ibid.
52. See for instance, Kaare Sandegren, "Om Norges sikkerhet og havrettspolitikken," in Treholdt, Dahl, Hysvaer, Nes, ed., Norges havretts- og ressurspolitikk, Oslo, 1976, pp. 182-183.
53. See Willy Ostreng, "The Exercise of Norwegian Authority on Svalbard. Background and Conditions for Change," in Proceedings for Spitsbergen Symposium, Nov. 1978, Arctic Center, University of Groningen, the Netherlands.
54. An agreement on such an issue linkage is subject to "The Law of the Least Ambitious Program":

> Where international management can be established only through agreement among all significant parties involved, and where such a regulation is considered only by its own merits, collective action will be limited to those measures acceptable to the least enthusiastic party.

A. Underdal, The Politics of International Fisheries Management, Universitetsforlaget, Oslo 1980.

COMMENTARY

Esther C. Wunnicke
Director
Department of Natural Resources
State of Alaska

I appreciate very much being asked by Professor Oxman to make a few comments about the State of Alaska's attitude regarding environmental protection and oil and gas development in the Alaska's offshore areas.

Mr. Herrera had addressed economic and environmental constraints on the development of Arctic Petroleum Resources from the industry's standpoint. I will speak to the considerations that the State faces in making decisions about oil and development.

The State of Alaska's estate is a huge one by most standards, with a diversity of resources. It will eventually encompass about 104 million onshore acres -- we now have received approximately 80 million acres of this amount from the federal government -- and perhaps more importantly for this discussion, includes the tidelands along a 34,000-mile coastline and offshore acreage out to the three-mile territorial sea boundary, which amounts to approximately 25-30 million acres.

As Commissioner of Natural Resources, I am responsible for the management of all the State-owned surface and subsurface resources, except fish and game. As a member of Governor Bill Sheffield's team, I also take these latter two very important resources, as well as air and water standards, into consideration as I make decisions about resources I am directly responsible for.

One of my jobs is to provide the opportunity for oil and gas development on State-owned lands. The State's goals for development of these resources is

1. to contribute to the energy independence of both the United States and Alaska;
2. to create an energy industry that will provide for a stable and diverse economy;
3. to establish a steady, long-term source of revenues sufficient to meet the needs of Alaskans, and
4. to maximize the economic return to the State and its citizens from the sale of State-owned oil and gas resources.

But I have other duties mandated by Alaska's constitution and statutes. I am called upon to encourage the development of the state's resources by making them available for maximum use, but I am to do so consistent with the public interest. Not only am I to provide for the utilization and development of all natural resources belonging to the State for the maximum benefit of its peoples, but I am also charged to provide for the conservation of those resources.

In my judgment, this boils down to balancing petroleum and other resource development and the protection of Alaska's environment, fish and wildlife populations, and in some cases the unhindered pursuit of a unique culture or style of life. Therefore we also have an additional goal in our oil and gas development program, and that is to mitigate the adverse social and environmental effects that may result from oil and gas development.

Petroleum has been a part of Alaska's history for more than 130 years. Russian traders reported natural oil seeps along the coast as early as 1853. The State of Alaska held its first lease sale in 1959 shortly after Statehood and offered offshore and onshore State lands in Cook Inlet. Unlike the federal government, the State does not lease and manage its offshore lands separately from onshore lands.

We do, like the federal government, have an ambitious five-year oil and gas leasing program that serves several purposes. It gives the oil industry a stable setting in which to plan for the future. It also provides an opportunity to closely examine any proposed leasing area and to weigh carefully the potential benefits and possible degradation of the environment or infringement upon the lifestyles of Alaskans.

We have leased more than 7 million acres of land in forty-two sales since 1959 when Alaska joined the union. All but ten or so have included some amount of offshore acreage. More than 2 million acres of State submerged lands have been leased in Cook Inlet and the Beaufort Sea. We currently have about 4.3 million acres under lease. And under our present five-year oil and gas leasing schedule, some 10 million acres of State-owned land will be available for lease through 1988.

Most of our potential for petroleum development is on the North Slope and offshore in the Beaufort Sea. The famous Prudhoe Bay field is an onshore operation on the North Slope, of course. It is important to this discussion because it has had such an impact both economically and socially on Alaska and it was the cause for the building of the TransAlaska Pipeline in the mid 1970s, which has made it possible for other, smaller fields on the North Slope to be developed.

With its approximately 10 billion barrels of recoverable oil, Prudhoe Bay ranks as the largest field ever discovered in North America. It also happens to be located on State-owned land and since production began in 1977, has pumped billions of dollars into the State treasury and millions of dollars into the pockets of Alaskans through our Permanent Fund Dividend Program. At present about 85 percent of the State's revenues flow from the production of oil, primarily from the Prudhoe Bay field. For fiscal year 1985, that amounts to approximately $2.8 billion. In about five years, however, production at the Prudhoe Bay field, which is about 1.5 million barrels per day currently, will begin a gradual decline. By 1988, production is expected to be half that amount, or roughly 850,000 barrels daily.

The other producing area on the North Slope at this time is the Kuparuk River field just west of the Prudhoe Bay operation. Kuparuk will increase production to about 190,000 barrels per day later this year and to 250,000 barrels per day in 1986. This field, which is expected to produce 1.5 billion barrels over its life, will peak in 1987. It recently produced its 100 millionth barrel. The only other producing area in the State at this time is the Cook Inlet region. Production of Cook Inlet oil, which began in 1965 and peaked in 1970, is now only 59,000 barrels per day and rapidly declining. So we who work for the State of Alaska have every reason to encourage the exploration and development of our oil and gas resources, both onshore and offshore. And the present administration supports the continued exploration and development of these resources on State land and in the federal OCS.

We, however, of necessity have to use the same standards -- the balancing of development and environmental protection -- in our attitude toward oil and gas leasing on federal land.

The federal government has pursued an aggressive leasing program off Alaska's coast since the energy crisis of the early 1970s. The first Alaska OCS sale was held in the Gulf of Alaska in 1976. Almost 4 million acres have been leased in the twelve OCS Sales held to date. Since January 1983, when the administration under Governor Bill Sheffield took office, the State has supported the Norton, the first St. George and the Navarin OCS sales after measures were taken to meet social and environmental concerns of Alaska's coastal peoples. However, we have sought to moderate the federal oil and gas leasing program in the interest of other State concerns, as have past administrations, and asked for the delay of several OCS sales for various reasons earlier this year.

Our first recommendation was that a second sale in the St. George Basin be delayed from December of this year until mid-1986 so that drilling experience from the first St. George sale could be incorporated into the decision-making process for the second sale. The first wells were drilled on the leases from the first sale this summer. Secretary Clark rescheduled this sale until April of 1985. We also asked that the Barrow Arch sale in the Chukchi Sea be delayed from 1985 to 1987 because of the severe ice conditions in the area; the inadequacy of existing biological and environmental information; the need for more time for research and data-gathering; and the desire to seek coordination with the State's leasing program. Secretary Clark decided to remove this sale from the five-year schedule.

Another State request, that the federal government delay for ten years its proposed North Aleutian Basin sale in Bristol Bay, has generated the most controversy and is a very good example of the type of balancing act that the State must do. The North Aleutian Basin lies within the Bristol Bay Region, which has a special significance for many Alaskans. Commercial Fishermen, native residents who depend on the fish and wildlife for subsistence, and many citizens throughout Alaska and the international fishing and environmental community are concerned

about preserving and maintaining some of the most productive fishing grounds in the world. As a result, in 1972 the Alaska State Legislature created a fisheries reserve that effectively precludes oil and gas leasing in much of Bristol Bay. In addition, the State has just put into effect an Area Plan for the Bristol Bay region that includes a ten-year delay of leasing within the State's coastal waters in the area to allow time for additional study of the impact of offshore drilling.

The State's request for a delay of federal OCS leasing in this area was, therefore, entirely consistent with its own actions in the Bristol Bay region. Secretary Clark did not grant our request for a ten-year delay, but he did delete a large amount of acreage from the offering area in response to our request and delayed the sale until November of 1985. The State's actions to delay oil and gas development in this area was especially frustrating to those who believe the oil industry has adequately demonstrated that oil and gas development will not harm the fishery or the region's waterfowl, marine mammals, and wildlife. Yet, those whose livelihoods and lifestyles are directly affected remain unconvinced. Bristol Bay fishermen want 95 percent or better assurance that oil and gas development will not affect the fishery. And while industry biologists assure us that there is no reason for concern, other biologists foresee dreadful consequences should an accident occur. In the face of scientific uncertainty and continuing opposition from residents of the region, the State took what I believe is a prudent approach and a defensible position under the circumstances.

Another example of the balancing that is often required in my job involves the seasonal drilling restriction on exploratory drilling operations in the Alaska Beaufort Sea. This restriction, which was initially imposed in 1979, prohibited exploratory wells from being drilled during periods of broken, moving ice and during open water periods. The restriction was designed to allow oil companies to drill only during periods in which oil spill cleanup capability was high, which in this case is when there is frozen, solid ice surrounding the drilling island.

Many Alaskans were concerned that the oil industry did not have the capability to safely operate in the harsh Beaufort Sea environment, that oil spills would likely occur, and that unless the restriction was imposed, significant impacts could occur to fish and wildlife resources, on which many Alaska Natives depend. Of special importance was the Bowhead Whale, a federally-protected endangered species, which is also important to the subsistence lifestyle of the Eskimos in northern Alaska. Since 1979, the State has spent considerable time analyzing the need for the restriction and the resulting increased costs to the oil industry and to the State. We have also carefully examined the industry's operations on the North Slope to ascertain whether or not they are able to operate in a safe manner.

As a result of this analysis, the State has recently decided to lift the restriction, which would allow the industry to drill year-round except outside the Barrier Islands during the fall Bowhead Whale migration if a company complies with a number of conditions aimed at safeguarding the environment. One condition is that they participate in an oil-spill clean-up research and development program. In making the decision to lift the restriction, I and the Commissioner of Environmental Conservation concluded that the oil industry had an adequate capability to clean up oil during periods of broken ice, but that problems remained. The research and development program is designed to address these remaining problems. In this decision, as in many others, we had to deal with community perceptions of danger. A not-unimportant ingredient in the seasonal-drilling decision process was the industry's move to hold meetings to inform local officials and the public about their advances in oil-spill cleanup technology.

It is going to take time and patience to overcome some of the perceptions held by local communities regarding oil and gas development. It is natural to be hesitant when dealing with a new sensation, a new experience, or a new technology. Often the people who are impacted by oil and gas development in Alaska have had limited experience with oil industry technology. It is understandable that they are skeptical at first when told that technology exists to explore for and produce oil and gas without damaging their environment. To overcome this skepticism, it will take time and effort, and a good record.

I, however, think that there is a demonstrable link between individual and community benefits and public support for oil and gas development. And so I hope that industry representatives, as they move forward with exploration on the leases already sold in the Bering Sea, Beaufort Sea, Western Alaska, and other areas, will continue to be sensitive to cultural and social concerns and continue to hire as many local residents as possible in offshore and onshore operations. I also believe that we will continue to make the technological progress necessary to meet the challenge of offshore oil and gas development in Alaska.

Cook Inlet is a good example of how new technology was developed to meet new challenges. There were people who said that platforms could not be erected in the inlet because of ice conditions and that they should not be built because of danger to fisheries. But the industry has operated in the inlet for years without a major mishap. Accordingly, the State on a regular basis leases available acreage in Cook Inlet and will continue to do so in the future. The question of technological feasibility is no longer a hurdle in this area.

Prudhoe Bay and the nearshore areas of the Beaufort Sea are other areas where the challenge has been and is being met. We know that the industry is working to overcome the technological difficulties inherent in operating in this new frontier. The industry is working hard at designing drilling and production structures capable of withstanding the oceanographic and

meteorological conditions found in areas like the Chukchi Sea. The progress of the Concrete Island Drilling System (CIDS) is particularly impressive. This was only a concept a few years ago, and now one is nearly ready for use this coming winter in the Beaufort Sea.

We believe that oil and gas development can be accomplished in an environmentally sensitive manner, and we are optimistic, if realistic, about the future of the oil industry in this state. We know very well that the likelihood of finding another field as large as Prudhoe Bay is not great. But despite this fact of life and the much publicized dry hole at Mukluk, there is reason for optimism about the potential for future discoveries and continuing oil and gas development. Shell is drilling to confirm a discovery in the Beaufort Sea at Seal Island, which has estimated reserves of 300 million barrels of recoverable oil, and Conoco is moving ahead with plans to develop its Milne Point field, which is thought to hold 100 million barrels of recoverable oil. The State has approved plans for development of the Lisburne Reservoir, which lies both on and off the shore and is estimated to hold 350 million barrels of recoverable oil and 1.8 trillion cubic feet of gas, and is considering the permits for the Endicott project, an offshore field estimated to have about 375 million barrels of recoverable oil.

We in the Sheffield administration intend to continue our support of oil and gas development on State-owned lands and in the federal OCS and believe that this industry will continue to make an important contribution to Alaska's economy and the country's well-being in the coming decades.

COMMENTARY

George V. Kriste
Executive Vice President
Cook Inlet Region, Inc.
Anchorage, Alaska

I am going to limit my observations to add-ons to my fellow Alaskans' comments from the vantage point of Alaskan native corporations which represent the Alaskan Indian, Eskimo, and Aleut peoples. Suffice it to say, one cannot speak in generalities about native peoples' attitudes to OCS and Arctic petroleum development activities, especially one who is a native Californian. Notwithstanding, I can speak to a set of unique economic facts in Alaska that are gradually changing native peoples' attitudes towards oil and gas development, onshore and offshore Alaska.

First is the passage of the Alaskan Native Claim Settlement Act of 1971. As mentioned by Commissioner Wunnicke, this was a significant event not only for Alaskan natives but for the federal and state government and for the oil and gas industry. Established as for-profit economic entities, native corporations have changed the balance of what native people have had to think about: considerations of a subsistence life-style to considerations of corporate overhead and dividends.

As Esther Wunnicke also noted, the cash economy of Alaska is petroleum development. Although the primary focus to date has been on Prudhoe Bay and its immediate environs, the future of petroleum development in Alaska is clearly focused on the federal OCS. With regard to OCS exploration and development, Alaska's native people, not unlike the state of Alaska, are somewhat fearful of suffering the cultural impacts of development without its commensurate financial benefits. Although generalities are dangerous in this area, I firmly believe that, as economic entities, native corporations are more likely to assess avenues for economic involvement in OCS development than to line up with the opposition, as they have done historically in their attitudes towards new development in Alaska.

With these brief background comments, I would like to report that Alaska and its native people are about to achieve a perfect balance of interests in approaching development in the OCS. But as anyone can observe, this is clearly not the case. Let me briefly touch on a specific example and give some editorial comment regarding the corporation I represent to illustrate some of the frustrations and difficulties we have experienced in seeking economic opportunities in the OCS. The example, St. Matthew Island. Harken back, if you will, to Mr. Heintz's picture of the helicopter which, he noted, was converted from forty-four passengers to seventeen passengers and which we regard as a flying bomb. The helicopter is known as a Boeing-Veritol and there are only, I believe, nine or ten of

them in the world, two of which are currently available. Only these helicopters have the range to fly from existing on-shore support bases to the oil and gas developments in the Navarin Basin. It didn't take a genius to recognize that one who could acquire lands closer to the Navarin Basin would have an economic opportunity. We we were those simple folk. We noticed that some land was available; we worked with the federal government over a period of two years and completed a land exchange in August of 1983. This land exchange was facilitated by the fact, also harkening back to a comment by Esther Wunnicke, that native corporations own, or eventually will own, forty-four million acres of land in Alaska. Cook Inlet Region and two other native corporations owned lands that we regarded as better placed within the wildlife and wilderness systems of the United States than the portions of St. Matthew which could appropriately be used for support functions for Navarin petroleum development. We traded these lands to the United States in exchange for land on St. Matthew Island. We completed the exchange in August of 1983, well in advance of the lease sale which transpired earlier this year in the Navarin Basin. Ever since the date that we completed the exchange, we have been in court. After three years and over $750,000 in expense, we have truly learned firsthand the economic constraints and environmental considerations that are taken into account in OCS development. And we've only just begun walking through the regulatory hurdles that lie between us and development.

In the face of this opposition and expense that we are still incurring -- and we are still in court -- one might ask quite simply, "Why are we continuing to pursue this involvement?" The reason is because we believe that the use of the island as a support base is one economic opportunity for native corporations that is virtually assured of success by the sheer geography involved in the development of the Navarin Basin and the logistics associated with it. Although this has impeccable logic to us, the delays will result in economic and human environmental constraints to oil and gas development in the area.

I've taken the liberty to recite this litany of negative comments about going and getting involved in OCS activities for native corporations. But these activities that have been negative could shortly be behind us as the federal district court in Alaska prepares to rule, hopefully by the first part of next week.

In summary, although one cannot generalize about the attitudes of Alaska's native peoples with respect to offshore petroleum development, certainly the above example shows that many of them are actively supporting the oil and gas industry's efforts for OCS development.

COMMENTARY

Robert B. Krueger
Finley, Kumble, Wagner, Heine, Underberg, Manley and Casey
Los Angeles

I have a few comments that relate to the U.S. position in Alaska versus the Soviet Union. I recognize the constraints of sensitivity with which Robert Smith and David Colson were operating in the presentation of their excellent papers. I think, however, that a very topical issue is presented here. Neither the U.S. nor the Soviet Union has shown any interest in pursuing any boundary other than the lines set forth in the 1867 treaty. On the other hand, a number of discussions are still occurring. As late as July of 1984, there were meetings between the Soviet Union and the United States. Two years ago when the Department of Interior put out the maps for Lease Sale 83 they showed the Russian boundary line and said "The 1867 convention line is regarded as the limit of the United States' continental shelf." That line was drawn by the great circle method. The Russians, it would appear, would prefer the rhumb line, the Mercator system. It is a less modern method of charting and would result in a discrepancy of at least 15,000 square miles in the area immediately under consideration. If it were extended into the Arctic, in accordance with the description of the 1867 line, some huge acreages could be involved.

An important development occurred in April of 1984 just prior to the lease sale -- bear in mind that these parcels extend right up to the boundary claimed by the U.S. -- when the Interior Department created a buffer zone varying in width from 20 to 40 miles along the entire length of the boundary line of some 200 miles, thus demarcating an area on the order of 6,000 square miles. Within that zone, the bids were taken on leases, but in effect the monies were put in escrow pending a determination of title by the U.S.

This situation illustrates the magnitude of this issue in Alaska and also suggests -- and this is the salient point -- that resources in the Navarin Basin could be shared. During the International Decade of Ocean Exploration joint, in effect, U.S.-USSR geophysical surveys were conducted under mutually approved standards which covered the entire Navarin Basin Province on both sides of the boundary line. That data shows, and the interest of the petroleum industry has shown, that we have a predictably shared resource if oil or gas is discovered in the Basin.

What is the significance of this shared resource? It presents a very unusual opportunity for Soviet-U.S. cooperation. It could present the Soviet Union and the United States with exactly the situation that the countries bordering on the North Sea encountered when they discovered offshore oil and gas.

This then raises the question of what sort of arrangements could be made. Willy Ostreng points out what Norway has done

with the Soviets in the Barents Sea, which is a very comparable situation. Probably the best type of agreement would be a unitization agreement of the type that we use in the U.S. for separately-owned interests on a single structure in which participation is based upon volumetric considerations with review for adjusting, depending upon where the reserves happen to fall. This method was used by the United Kingdom and Norway in the Frigg Field and it is a very well-accepted way to with the situation. Whether it would be politically compatible for the Soviet Union and the United States to be partners in energy resource development is, however, subject to question. It is obvious that the Soviets and the U.S. each have security and strategic interests of national concern in the Arctic. The issues, therefore, should be approached with care and sensitivity and it is obvious to me that both countries are approaching them in that fashion.

If you look at the North Sea as precedent, and it clearly is, one interesting possibility is that the Soviet mainland could be used as a staging, supply and processing site for the exploration and development of resources commonly shared or even separate, not commonly shared, on both sides of the boundary line. The Navarin Basin is much closer to Siberia, to Cape Navarin -- something less than 150 miles -- than it is to Alaska, which is 450 miles or thereabout. That is a long helicopter trip in a very hostile environment. Cape Navarin is also a much more suitable area for staging, transportation, facilities, etc. This does not denigrate the importance of St. Matthew Island as a necessary support base, but it is unlikely that it could serve all support functions because of political and environmental limitations.

Another interesting possibility is that the shared petroleum resources could provide the avenue, as indeed they did in the North Sea, by which U.S. companies can become involved in the development of Soviet petroleum resources through the operation of unitized areas and possibly later through independent contracts in Soviet offshore areas. Interestingly enough, the Soviet legal system does presently authorize permits for both exploration and development of offshore areas by foreign individuals and corporations. A cooperative approach to shared resources in this area could result in many efficiencies to both the Soviet Union, the United States, and the companies operating in the area. With due regard for the rhetoric that the Soviet Union and the U.S. have exchanged in the last several years, this approach may seem unrealistic. I do not believe that it is naive. As of yesterday, Henry Kissinger, after meeting with President Reagan, said, "the current administration seems to be on a course of a negotiated acceptance of coexistence." Dr. Kissinger said in effect that the term <u>detente</u> had been fed down the memory hole during President Reagan's first campaign. In short, cooperation between two countries, particularly where it is in both countries' interests, is as possible as confrontation. As we saw this morning, finding petroleum, developing petroleum, has a way of

encouraging discussions as well as litigation. But we are not going to litigate with the Russians and it is likely that we will be talking to them about these subjects of common benefit.

I will close by noting, as we are all aware, that the U.S. and the Soviet Union are unique in their positions as world powers. Their positions as the world's two largest petroleum producers are sometimes overlooked, too. The Bering Sea and other areas of the Arctic where resources could be shared can provide a setting for cooperation and accommodation that could benefit both countries. It would be very interesting to see what the U.S. and the Soviets might do as petroleum partners.

BERNARD OXMAN: Ambassador Peter Brueckner.

PETER BRUECKNER: Thank you, Mr. Chairman. I would first of all like to thank the Institute for its initiative to put this issue on the agenda and thereby promote the "Arctic conscience" among the members of the Institute and this conference. I have two comments and one question.

The first comment is directed partly to Robert Smith and partly to David Colson. It relates in particular to Robert Smith's description of the state of affairs between Norway and Denmark up to 1980 in his paper. It might be read as though Denmark had exercised a kind of "creeping jurisdiction" from a median line to a full 200-mile limit vis-a-vis Jan Mayen. On one of the maps shown by Willy Ostreng we saw the overlap not only between Iceland and Jan Mayen but also the disputed area between Jan Mayen and Greenland. Denmark initially abstained from exercising jurisdiction beyond the median line. After 1980 Norway went to the median line. This step compelled Denmark to register its basic viewpoint that Jan Mayen, in particular because of its small size and location very far from the Norwegian mainland, is not entitled by international law to a fishery zone which encroaches upon the 200-mile zone of Greenland. Thus in August 1981, Denmark established a full 200-mile zone. The disputed area constitutes approximately 70,000 square kilometers.

Furthermore, according to Robert Smith, no negotiations between Norway and Denmark should have taken place. In fact, the two countries have negotiated since December 1980. We are now at a stage where Denmark has offered a solution through arbitration. Norway has not yet responded to this offer.

The delimitation problem is different from the question concerning the capelin. This is a trilateral fisheries problem among Norway, Iceland, and Denmark-Greenland which has to be solved independently from the border problem because the capelin is a stock which travels between fisheries zones of the three countries. We hope we will be able to solve that problem as well.

My second comment relates to the transport problem, the so-called Arctic Pilot Project (APP). This is a Canadian project concerning transport of liquified natural gas in giant tankers through the Northwest Passage and down southwards, mainly through Greenland waters because there is less ice on the Greenland side of the median line. Our Inuit people, the Greenland population, have voiced concern about APP, which has been a subject for discussions at various levels between Denmark and Canada. There are two issues. One is that the noise might have detrimental effects on the stocks of whales and other mammals. Indeed, the whole communications system of these mammals might in our view be hampered by the noise created by these huge tankers going through in series. The other one is

that the new permanently-open sea lanes created by the tanker ice breakers would hamper the Greenlanders' usual hunting in that region.

On 23 August 1983 an agreement on the protection of the marine environment in the waters between Greenland and Canada was concluded. The agreement refers to Article 234 of the UNCLOS Convention. Thus, irrespective of the unilateral competence that each country considers itself to have under the Law of the Sea Convention, once it enters into force, Denmark and Canada have established a cooperation under the auspices of Article 234 in order to avoid the particular problems that the APP or similar projects, like the Beaufort Sea project, might create.

Relating to the 1973 agreement concerning the delimitation of the shelf areas between Canada and Greenland, Robert Smith has referred to some uncertainty with regard to the baselines. That wasn't exactly the problem when we were delimiting this large area of sea or seabed between Greenland and Canada. The problem was that we didn't have uniform charts covering the whole area. We had two charts within two different data systems. Because of the uncertainty due to the cartographic material we had to make a margin for subsequent shelf operations. In 1977 when the first drilling took place, the operators had to keep some miles away from the median line. We are now in a position to revise the whole borderline and straighten it out up to the Nares Strait.

In the Kennedy Channel we still have an unsolved problem, a small island called Hans Island. Both Canada and Denmark claim sovereignty over the island. The border line, which is still open around Hans Island, continues further north to the Lincoln Sea. The delimitation in this northern west area still remains to be negotiated.

My question relates to the legal status of ice floes. We all know that scientific research stations are located on ice floes that follow the current in the Arctic Sea. Some of these ice floes may enter the economic zones or fishery zones of the countries bordering this area. The question concerns the countries exercising a competence to regulate scientific marine research within their zones. What should their attitude be when such an ice floe suddenly starts moving into their economic zones conducting scientific research which might relate to the sea? Secondly, what do you do about an ice floe when it is deserted by the scientists? For practical reasons the scientists often leave their equipment, oil drums, etcetera, on the ice floe before it floats southward along the east coast of Greenland. We have discovered deserted ice floes that had started their careers in the Arctic Sea as far away as off the west coast of Greenland, still equipped with oil drums and machinery. If the ice floe finally breaks, down we may witness serious effects on the vulnerable Artic marine environment when oil drums are dumped into the sea. Thank you.

BERNARD OXMAN: Thank you. Would anyone like to volunteer to respond to Ambassador Brueckner's question regarding ice floes?

ROBERT KRUEGER: It is my understanding, and I think Mr. Herrera concurs, that the ice that you get in the Bering Sea is not of that character. It is only when you get above the Bering Straits that you get into very heavy ice and iceberg problems of the type Ambassador Brueckner described.

BERNARD OXMAN: Mr. Colson?

DAVID COLSON: I think Ambassador Brueckner has raised some interesting questions about ice floes. I don't have answers to those questions. We have encountered similar kinds of problems in the United States; in particular, a few years ago there was a murder on an ice station that basically involved U.S. citizens and the federal government argued -- and somebody may want to help me -- that this crime fell within the special maritime jurisdiction of the United States and therefore was part of the U.S. criminal code. That case was reversed on other grounds, I believe, but it is a special kind of problem and it's one that is unique and arcane and that people don't think about very much. But it does raise some very interesting legal problems.

BERNARD OXMAN: Thank you. I would only add a point which I am sure Dr. Brueckner would agree with. I presume you, unlike some, would ask questions before shooting. I hope you all will join me in thanking our panelists and commentators again for the excellent job that they have done.

PART VII

ECONOMIC DEVELOPMENT AND MANAGEMENT OF FISHERIES IN THE EXCLUSIVE ECONOMIC ZONES OF THE PACIFIC BASIN: ACCOMPLISHMENTS AND PROBLEMS

INTRODUCTORY REMARKS

Gordon R. Munro
Department of Economics
University of British Columbia

Our panel is devoted to economic development and management of fisheries within the exclusive economic zone. Over the past three days we have discussed problems of formulating and developing the law of the sea, particularly problems of deep seabed mining. Today we turn to fisheries, an area that, in legal terms, has been more or less settled. For good or ill, the exclusive economic zone which encompasses fisheries has become, as every speaker has agreed, part of customary international law. The one fisheries question over which some doubt appears to remain is that of highly migratory species, what one might call "the Article 64 problem," but beyond that I think that the fisheries matter has been virtually settled. But settling the legal aspect is only the first step. We then encounter the very great problems of implementation. The coastal state can establish an exclusive economic zone or a fishery conservation zone, but to invest these zones with any meaning, at least in the realm of fisheries, the coastal state must devise effective means of managing the newly-acquired resources. If management efforts fail, the exclusive economic zones could confer negative economic benefits on the coastal state, Jim Crutchfield indicated some of the management problems facing the U.S. yesterday in his talk on U.S. Regional Fisheries Management Councils.

In this panel we consider some of the problems of implementation in the context of the Pacific. Two of the most interesting exclusive economic zone "experiments" pertaining to fisheries in the Pacific are to be found in the waters off Alaska, in particular with respect to the great Alaskan ground fisheries, and in the waters of the South Pacific. One experiment involves a single and highly developed coastal state, the other involves a cluster of coastal states at a very early stage of development.

Our first paper addresses the Alaskan fisheries and our second paper is concerned with the South Pacific. The third paper discusses some difficult fisheries relations under extended fisheries jurisdiction that have arisen between neighboring coastal states, one developed and the other developing, the United States and Mexico.

Our first speaker, Lee Alverson, will talk on the Alaskan fisheries question. He is a marine biologist by training who served many years with the U.S. National Marine Fisheries Service and was and is an adjunct professor at the University of Washington. He has been actively -- indeed one might say intimately -- involved with post-EFJ fisheries in Alaska through his company, Natural Resource Consultants.

For our second paper on the economic development and management of fisheries in the exclusive economic zones of

Pacific Island states, we turn appropriately enough to the South Pacific Forum Fisheries Agency, which has fourteen member states. The paper was prepared jointly by Leslie Clark, the Deputy Director of the FFA, and by Tony Slatyer, the FFA's legal officer, who will present it. Tony has served with the Foreign Fisheries Agency since the beginning of 1983; before that he was legal advisor to the Fisheries Division of the Australian Department of Primary Industry. He received his legal training at the Australian National University in Canberra.

For our third paper on the development of Mexican fisheries and its effect on U.S. relations, we are pleased to have as our speaker Roger Rosendahl, who is chairman of the International Business Department of the Los Angeles firm of Finley, Kumble, Wagner. Roger has had a great deal of experience in fisheries. Between 1974 and 1979 he was general counsel of Starkist Foods, the world's largest processor of tuna and related products. After that he was an attorney responsible for the major portion of the U.S. tuna fleet's expansion and financing, which occurred up to and through 1982. He was involved in the organization of Palomar, one of the first major Mexican fisheries joint ventures, in which both the United States and Italy participated. Roger is also Vice-President of the Asia Pacific Lawyers' Association and is founder and President of the Asia Pacific Law Institute.

The first commentator is Lee Anderson, a fellow economist who is from the University of Delaware where he holds a joint appointment with the Department of Economics and the College of Marine Studies. Lee has been at Delaware for the past ten years. He did his graduate work at the University of Washington in Fisheries Economics where he was a student of Jim Crutchfield, who gave us a paper yesterday. Lee is going to comment, properly I think, on the paper by the other Lee, Lee Alverson.

The second commentator is James Joseph, Director of Investigations of the Inter-American Tropical Tuna Commission. Jim will comment on the papers by Tony Slatyer and Roger Rosendahl. Both of those papers were dominated by tuna questions, so who could be more appropriate than Jim Joseph? Jim has been with the IATTC for at least fifteen years. He is a marine biologist by training and received his PhD. at the University of Washington.

Our last commentator is John Bardach, who will present an overview of the three papers and talk about their differences and their common themes. John is a marine biologist by training and has a PhD. from the University of Wisconsin. He has been with the Resource Systems Institute of the East-West Center for the past seven years, and before that he was the director of the Institute of Marine Biology at the University of Hawaii and a professor at the University of Michigan. His particular interest is in aquaculture. He has worked a great deal on AID programs in the Pacific and is extremely well qualified to give us an overview on the subjects discussed.

THE MAGNUSON FISHERIES CONSERVATION AND MANAGEMENT ACT: A FACTOR IN THE DEVELOPMENT AND MANAGEMENT OF ALASKAN FISHERIES

Dayton L. Alverson
Natural Resources Consultants
Seattle, Washington

INTRODUCTION

The passage of the Magnuson Fisheries Conservation and Management Act (MFCMA) in 1976 constituted a significant declaration of a new national fishery policy for the United States. The Act consummated efforts by major sectors of the U.S. harvesters, processors, and recreational fishery interests to secure greater control over the resources adjacent to the U.S. The MFCMA and its amendments undoubtedly improved the competitive position of U.S. fishermen and harvesters -- perhaps fishermen more than processors -- and also sharply altered the legal basis for fishery management within the 200-mile zone. Nevertheless, the fisheries policies and procedures that emerge from the MFCMA can be expected to be dynamic and the concerns and disappointments of different sectors of the fishing industry and other user groups will result in further amendments to the Act and changes in implementation procedures.

It is the purpose of this paper to trace fishery development in the fishery conservation zone (FCZ) off Alaska since the implementation of extended jurisdiction and to comment on components of the Act, its amendments, and management practices that have influenced development. The paper concludes with a commentary on new crises arising in the industry and potential policy solutions that will influence future use patterns.

THE MFCMA AND ALASKA FISHERY DEVELOPMENT

In addition to the commitment that the Act makes to conservation and management of the marine resources adjacent to the U.S., it is an explicit declaration of the intent of the United States to develop its underutilized or unused fishery resources. The Findings of the Act and its Purposes both make this commitment clear. Under the Act's Findings, it is stated, "A national program for the development of fisheries which are underutilized or not utilized by the United States fishing industry, including groundfish off Alaska, is necessary to assure that our citizens benefit from employment, food supply and revenue which could be generated thereby." The Findings are translated into action under the Purposes of the Act which state that Congress' intent was to

> encourage the development by the United States fishermen of fisheries which are currently

underutilized or not utilized by United States fishermen, including groundfish off Alaska, and to that end to ensure that optimum yield determinations provide such development.

For sectors of the U.S. industry seeking to develop and promote viable U.S. fisheries, these paragraphs generated enthusiasm -- a promise for the future. With passage of the MFCMA, there was great expectation among fishermen and some processors that there would be rapid growth in domestic harvesting and processing of fishery resources within the FCZ. Many anticipated a quick phase-out of foreign fishing activities, creating almost immediate opportunities for the U.S. fishing industry. Realizing the potential, however, was painfully slow during the first years following implementation of the MFCMA, and to some, legislative rhetoric continues to sound hollow.

Hopes for rapid displacement of foreign fleets and growth of U.S. fisheries faded as the stark realities of the MFCMA became understood. The assumed management authority over the FCZ did not lead to automatic expulsion of foreign fisheries but required the U.S. industry to demonstrate the capacity to harvest and market the resources available. Although conservation goals could be more quickly realized, the economic dream of rapid displacement of foreign fisheries awaited a U.S. commitment and capacity to harvest and sell its catch on the world market. The priority right concept gave access to resources to U.S. fishermen, but its value is contingent on the ability of fishermen to competitively harvest and market their catch.

The possibilities of developing Alaska's extensive groundfish resources and underutilized shellfish and pelagic fish resources received considerable attention prior to and following the passage of the MFCMA. Development opportunities were touted in the state legislature, assisted through state and federal development programs, promoted by national legislation, and explored and discussed in a number of public seminars. Regardless, by early 1980 development was small-scale and sporadic. It had not occurred along the lines that many had hoped. From the standpoint of many fishermen and harvesters interested in the Alaska scene, there had been a lot more fish rhetoric than fishery development.

A key turning point on the Alaska development scene occurred in 1980 with the modification of the MFCMA which changed the criteria upon which allocation of surplus (excess to U.S. needs) would be made. These criteria, soon to be referred to as the "Fish and Chips Policy," (Public Law 94265, Sec. 201 (e) (A-H)) were as follows:

A. whether, and to what extent, such nations impose tariff barriers or nontariff barriers on the importation, or otherwise restrict the market access, of United States fish or fishery products;

B. whether, and to what extent, such nations are cooperating with the United States in the advancement of existing and new opportunities for fisheries trade, particularly through the purchase of fish or fishery products from United States processors or from United States fishermen;

C. whether, and to what extent, such nations and the fishing fleets of such nations have cooperated with the United States in the enforcement of United States fishing regulations;

D. whether, and to what extent, such nations require the fish harvested from the fishery conservation zone for their domestic consumption;

E. whether, and to what extent, such nations otherwise contribute to, or foster the growth of, a sound and economic United States fishing industry, including minimizing gear conflicts with fishing operations of United States fishermen, and transferring harvesting or processing technology which will benefit the United States fishing industry;

F. whether, and to what extent, the fishing vessels of such nations have traditionally engaged in fishing in such fishery;

G. whether, and to what extent, such nations are cooperating with the United States in, and making substantial contributions to, fishery research and the identification of fishery resources; and

H. such other matters as the Secretary of State, in cooperation with the Secretary (of Commerce), deems appropriate."

This amendment in concert with the harvesters' preference provision of the Act, which was passed in 1978, set the scene for greater leverage to both processors and fishermen in utilizing fishery resources within the adjusted FCZ. The catalyst for development rested on (1) priority rights to the available resources by fishermen who harvested and processed or sold their catch to U.S. processors, (2) a preferential right over foreign fishermen to U.S. harvesters and (3) inducement of the "Fish and Chips Policy" which authorized new entrants to access resources assigned on the basis of historical fishing.

There can be little doubt that the "Fish and Chips" provision of the Act provided, if not the legal, the psychological impetus for development. There were obviously a sufficient number of foreign players interested in entering the game to change the historical allocation pattern. The growth in U.S. fisheries following 1980 was dramatic in character and almost unbelievable in the eyes of the bystanders. Most of this growth has been associated with the advent of joint ventures which harvest and transfer their catch to foreign processors. However, a review of the statistics suggests that growth in U.S.

catching and harvesting by several sectors of the industry has been significant.

THE GROWTH OF JOINT VENTURES

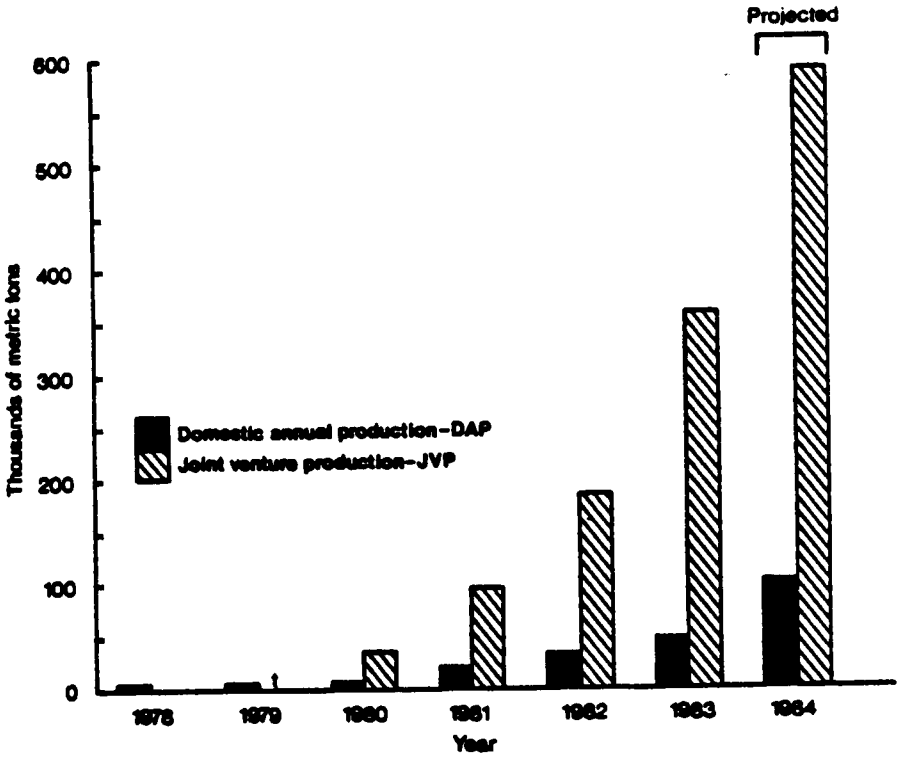
A summary of joint ventures and total domestic production of groundfish from the FCZ off Alaska is shown in Figure 1. From its inception as an experimental effort in 1979, joint venture production (fish caught and delivered to foreign processors) has grown from about 1,500 metric tons to over 352,000 metric tons in 1983. NRC has estimated that the 1984 Alaska joint venture figure will exceed 580,000 metric tons, making it the largest single food fish fishery in the U.S. Foreign partners in this fishery include Japan, the USSR, South Korea, West Germany, Taiwan, Spain and Portugal.

A breakdown of joint venture production by species between 1979 and 1983 is given in Table 1. It is obvious from the table that the extensive pollock resources of the Bering Sea and in the Gulf of Alaska have been the number one target of Alaska joint ventures. This trend has been fostered by the historical Asian demand for pollock and pollock roe, high catch rates, and the high quality of the at-sea processed fillets. To date, joint ventures for flounder have been dominated by the Soviets; however, some Japanese involvement occurred during 1984. In addition to flounder joint ventures, there has been a steady growth of joint ventures targeting on Pacific cod, largely with European partners, and on Atka mackerel purchased by the USSR.

The rapid growth of joint ventures was in part stimulated by the collapse of the crab and shrimp fisheries in Alaska which occurred between 1978 and 1982. This collapse resulted in considerable pressure on the U.S. Congress and the administrative branch of government to promote and increase joint venture activity. The promotion of international joint ventures was actively carried out by the U.S. Department of State and the National Marine Fisheries Service under the banner of the "Fish and Chips" principles. There can be little doubt that recent success in expanded joint venture activity was greatly assisted by the efforts and attitudes of key individuals in the previously noted government bodies and the U.S. Congress. The efforts of these groups were stimulated by the long-standing frustration of the U.S. fishing industry over its inability to foster meaningful fishery development in the U.S. FCZ.

Pressures exerted by the U.S. government ultimately paved the way for a major industry-to-industry joint venture meeting held in Seattle, Washington, in June 1982. The meeting resulted in Japanese companies agreeing to expand joint venture activity with U.S. fishermen in accordance with the following schedule and targets:

June 1982-May 1983	120,000 metric tons
June 1983-May 1984	200,000 metric tons



YEAR	MT DAP	MT JVP	MT TOTAL
1978	4,160	0	4,160
1979	5,879	1,468	7,347
1980	6,571	34,495	41,066
1981	20,683	95,442	116,125
1982	31,992	183,366	215,358
1983	46,651	352,526	399,526
1984	100,000	580,000	680,000

Figure 1. Summary of annual groundfish catches by U.S. vessels in the FCZ off Alaska, 1978–1983 and projected catches for 1984. Domestic Annual Production (DAP) is fish harvested and processed by U.S. nationals and joint venture production (JVP) is fish caught by U.S. vessels and processed aboard foreign ships. Sources: JVP from NMFS; DAP for 1982 and 1983 from ADF&G; DAP 1978–1981 from trade journals; and 1984 projections are by NRC.

Table 1. U.S. joint venture trawl deliveries in metric tons, by major species in the Pacific coast, Gulf of Alaska and Bering Sea, 1978-1982

AREA/SPECIES	1978	1979	1980	1981	1982
Bering Sea					
Pollock	---	---	10,654	42,083	54,604
Cod	---	---	8,456	9,159	13,591
Flounders	---	---	12,343	22,033	26,544
Atka Mackerel	---	---	265	1,633	12,475
Sablefish	---	---	39	180	124
Other	---	---	815	3,446	1,264
Total	---	---	32,570	78,534	108,602
Gulf of Alaska					
Pollock	---	582	1,135	16,856	73,917
Cod	---	711	465	57	193
Other	---	229	307	50	336
Total	---	1,555	1,907	16,963	74,446
Pacific Coast					
Hake	856	8,835	27,537	43,556	67,465
Other	---	---	243	165	240
Total	856	8,835	27,780	43,721	67,705
GRAND TOTAL	856	10,357	62,257	139,218	250,753

Although the rate of growth was less than hoped for by U.S. fishermen, many groups in the Pacific Northwest considered the Japanese commitment to be a significant step toward fuller U.S. involvement with groundfish. This U.S./Japan agreement was amended by a subsequent industry-to-industry negotiation in November 1983 which resulted in a significant increase in the 1984 joint venture commitment (Appendix I) along with commitments to purchase U.S.-processed fish and improve the general basis for exports into Japanese markets.

It is important to note that many foreign joint venture partners actively pursued arrangements to access groundfish in the U.S. FCZ. From the perspectives of Korea, the USSR, West Germany, Poland, Spain, and Portugal, joint ventures meant the possibility of an increased TALFF or access to productive fishing areas and potential fishing grounds for vessels which had limited opportunities as a result of extended jurisdiction throughout the world. In the case of the Soviets, loss of their directed allocation following their involvement in Afghanistan may have accelerated their joint venture activities. In contrast, Japan, which historically held the lion's share of the fish allocated to foreigners from within the FCZ off Alaska, saw no particular advantage to early involvement in joint ventures. It is likely that Japan perceived joint ventures as an operational mode which would erode national fishing efforts, that was potentially uneconomical and a threat to Japan's dominant harvester position in the northeast Pacific. Accordingly, Japan's movement into joint ventures only followed considerable prodding by the United States government and Congress.

The future development of Japanese and other international joint ventures will, no doubt, have to continue to deal with political and socioeconomic concerns within the U.S., but in the end it will be essential that joint venture arrangements be consummated and carried out in a manner that is profitable to both parties. Foreign interests may, of course, be willing to "carry" limited joint venture partners, even though the operations are perceived as uneconomical, in order to protect the level of their national directed fishing effort. Even under these circumstances the combination of directed and joint venture fisheries must be profitable over time. As the ratio of joint venture fisheries to directed fisheries increases, the profitability of joint venture operations (to both parties) becomes essential. Hence, although the political environment will remain a stimulus to joint venture growth, the economic dimension of joint venture operations in combination with the impact on countries' existing TALFFs may have already become the single most important factor governing the future growth pattern.

Joint venture fisheries on Alaska groundfish have survived a six-year test, during which time harvests have grown to well over a billion pounds. More than seventy U.S. trawlers are participating in these fisheries of Alaska pollock, yellowfin sole, cod, Atka mackerel, and rockfish this year. Their

catches, valued at $50-$60 million, will be delivered by direct net transfer at sea to foreign factory trawlers.

From a political perspective, joint venture fisheries have gained more acceptance and strength in the last couple of years, due largely to their relative economic importance to the harvesting sector of the industry and a growing list of participants. These fisheries are based on high-volume, low-value operations. They function on a short-term contract basis and the sponsoring foreign country generally has a dominant role in formulating the agreements. Good joint venture markets are in large demand and short supply. They are highly competitive and, accordingly, prices paid for the American-caught fish, particularly pollock, are currently about 70 percent of the prices paid by foreign nations in 1980.

Joint venture fisheries are typically conducted for periods of only three to six months during the year. Volume of deliveries is also commonly constrained by foreign processing capacity. As a result of these two factors, joint venture fisheries are usually a financial success during actual months of fishing, but often do not provide adequate income levels to sustain the vessels on an annual basis. Under present circumstances, most joint venture trawlers have minimal control over their long-term operations or future prospects. Their markets and ex-vessel prices are firmly controlled by foreign venture partners. Individual U.S. fishermen are not in a position to challenge these joint venture practices since the supply of individuals seeking such markets exceeds the supply of markets.

FACTORY TRAWLER ACTIVITY

Although over-the-side joint ventures have dominated the growth of Alaskan productivity since 1980, development has proceeded on several other fronts. Factory trawler operations began with the at-sea operations of the catcher/ processor Arctic Trawler. By the end of 1983, five such vessels ranging from 160 to 296 feet were operational. Three additional vessels entered the fleet in early 1984, increasing the fleet to eight. The primary target of these vessels has been Pacific cod, although increasing quantities of Pacific pollock have been landed during 1984. The total catch of these vessels is expected to exceed 50 thousand tons in 1984.

Factory trawler catches have largely been processed into fillets with some headed and gutted product. Sellers have banked on high prices ($1.30-$1.60/ pound) based on quality fillets. Unlike joint ventures, this fleet has grown largely without political pressure. Their ability to take advantage of the high availability of cod and to produce a quality product and, at the onset, the reduced supply of Atlantic cod placed U.S. harvesters in a strong competitive position. However, the competitive position of this fleet has deteriorated somewhat as a result of increased competition for declining Alaska cod stocks and competition from lower-priced imports, largely from Canada.

SHORESIDE DEVELOPMENT

Sporadic efforts have been made since the passage of the MFCMA to initiate shoreside processing activities. These efforts have generally focused on cod which are filleted or salted. Most shoreside processing has centered in the Kodiak area; however, small-scale operations have occurred in southeast Alaska and onboard floating processors west of Kodiak. A major salt cod operation was initiated in Akutan during 1982, but the facility burned down in the spring of 1983.

Perhaps the most successful non-joint venture fishery has been directed toward sablefish or blackcod. Prior to passage of the MFCMA, blackcod were primarily harvested by the Japanese and Korean longline fleets operating throughout the Bering Sea, the Gulf of Alaska, and south along the states of Washington, Oregon and California. Between 1960 and 1972, the blackcod fishery expanded rapidly, growing from about 7,600 tons to over 60,000 (Table 2). During this period, Japanese fleets dominated catches taken off Alaska.

After inception of the MFCMA in 1976, Japan's role in the blackcod fishery declined, first as a result of stricter conservation measures imposed by the North Pacific Fishery Management Council and subsequently as a result of growth of the U.S. longline fleet. U.S. production, which reached about 3,400 metric tons in 1983, is expected to more than double this year. Development has occurred largely as a result of U.S. entrance in the Japanese market, first from expanded efforts off California, Oregon, and Washington and more recently Alaska. The fishery is expected to be converted to an all-U.S. fishery in 1984.

The total U.S. shoreside processing of bottomfish in the Alaska region in 1984 will reach 30-50 thousand metric tons.

OTHER FISHERIES

This paper has concentrated on developments in groundfish fisheries, but it is perhaps appropriate to note that significant growth has also occurred in the post-MFCMA period in U.S. herring and Tanner crab fisheries. Both of these fisheries benefited from the U.S. preference aspect of extended jurisdiction.

FACTORS INFLUENCING ALASKA DEVELOPMENT

Passage of the MFCMA in 1976 constituted a significant new U.S. policy and has obviously played an important role in the growth of Alaska fisheries. The Act and its amendments yielded jurisdictional control over fishery resources which in turn led to a more rational conservation regime but, perhaps more significantly, provided priority access to U.S. industry which resulted in strategic advantages over competitors for resources that could be harvested and marketed. Passage of "Fish and Chips" amendments opened the door to U.S. allocation of resources in a manner favorable to U.S. development and thus added another dimension to potential business arrangements.

Table 2. Summary of historic sablefish catches in metric tons by U.S., Japan and other foreign nations from the U.S. Fishery Conservation Zone. Trace (t) denotes catches believed to be less than 50 metric tons. Source: Compiled from National Marine Fisheries Service data.

	BERING SEA & ALEUTIANS			GULF OF ALASKA			WASHINGTON AND CALIFORNIA			
	U.S.	JAPAN	OTHER FOREIGN	U.S.	JAPAN	OTHER FOREIGN	U.S.	JAPAN	OTHER FOREIGN	TOTAL METRIC TONS
1960	t	1,861	t	1,925	0	17	3,789	0	0	7,592
1961	t	26,182	t	866		31	2,434	0	0	29,513
1962	t	28,521	t	684	0	47	3,334	0	0	32,586
1963	t	18,404	t	881	1,819	109	2,315	0	0	23,528
1964	t	8,262	t	1,172	1,047	238	2,486	0	0	13,205
1965	t	8,240	t	1,047	2,217	194	2,255	0	0	13,953
1966	t	13,088	t	1,067	3,778	335	2,096	0	0	20,364
1967	t	14,840	274	946	5,030	199	2,262	510	0	24,061
1968	t	16,258	4,256	161	14,767	128	1,916	1,172	0	38,658
1969	t	18,813	1,579	301	19,051	72	2,460	64	0	42,340
1970	t	10,904	2,874	527	24,530	68	2,567	961	980	43,411
1971	t	14,981	3,000	386	25,228	15	2,413	76	762	46,861
1972	t	16,538	2,406	1,081	35,558	324	4,145	655	299	61,006
1973	t	9,270	1,354	1,217	27,264	125	4,742	125	121	44,218
1974	t	7,587	91	1,114	24,176	2,479	6,204	0	164	41,815
1975	t	4,922	117	1,516	22,072	3,049	7,793	164	0	39,633
1976	t	4,840	90	1,145	21,924	3,764	7,028	466	68	39,325
1977	t	3,740	90	1,173	14,356	1,601	7,584	134	13,918	42,596
1978	t	1,725	155	1,777	6,458	669	10,619	0	7	21,410
1979	t	1,688	318	3,382	5,901	918	17,317	0	7	29,531
1980	t	1,882	556	2,270	4,831	1,307	9,504	0	0	20,350
1981	t	2,411	544	1,801	6,911	1,062	11,524	0	0	24,253
1982	258	3,030	808	3,008	4,921	724	18,530	0	0	31,279
1983	220	2,786	420	3,206	4,387	627	14,547	0	0	26,193

Although the Act itself provided major advantages to U.S. fishermen, there can be little doubt that political pressure on Congress and the Administration resulted in increased demand for foreign users of resources in the U.S. FCZ to expand joint ventures and/or assist the growth of U.S. fisheries through purchase of U.S.-caught and processed products. Government-to-government discussions, Congressional pressure, and industry efforts to "Americanize" the FCZ have played important roles in the recent spectacular growth of Alaska non-salmon fisheries. These factors, coupled with a modernization of the U.S. fleet and improved technology, underlie Alaska fishery development.

Finally, the contributions by the North Pacific Fishery Management Council must be appreciated. Following implementation of the MFCMA, the Council, in conjunction with the NPFMC, moved swiftly to bring groundfish and crab catch levels to those recommended by U.S. scientists. Whether by chance or good management, groundfish stocks in the Gulf and Bering Sea have generally been rebuilt to high levels, and most stocks except those of Pacific Ocean perch and sablefish are considered in good condition. Thus, status of stock reports were encouraging to potential investors. It must also be noted that the Council adjusted the optimum yield and fishing areas to benefit U.S. fishermen. This, coupled with increased operational costs imposed on foreign operators in terms of user fees and payments for the observer programs, made joint ventures more attractive.

Over the longer term, it is obvious that continued attractiveness of joint ventures and U.S.-caught and -processed catches depends upon resource availability and an array of basic economic factors -- not the least of which will be the willingness of harvesters to accept some type of limited entry program. The latter, however, will not be easily achieved because of fishermen's reluctance to accept this management tactic. This suggests that the economic benefits and advantages of such systems have not been adequately communicated to many fishermen or that there is a stubborn reluctance by fishermen to accept this level of government involvement in fisheries.

THE AMERICANIZATION OF THE FCZ -- WILL IT OCCUR?

In a recent paper examining policy development in U.S. fisheries, the possibility of full use of the fishery resources by U.S. fishermen and processors was examined. The following excerpt from that paper (Alverson, 1984) prepared for the 1984 Conference on Fisheries Management: Issues and Options, held in Anchorage, Alaska, is appropriate in regard to this issue.

In the past year, Northwest and Alaska processors and fishermen have joined together to form the Alaska Pacific Seafood Industry Coalition (APSIC). United, this group forms a powerful political force that can help to mold regional and national fishery policy. Admittedly, it does not embrace all elements of the fishery family as described in this paper; however, it does bring together a significant component of the

harvesting, processing, and labor force involved in the fisheries of the region and has the capacity to provide leadership.

The coalition has taken a strong position advocating the Americanization of the FCZ, a concept that promotes the full use of the fishery resources within 200 miles of the U.S. by U.S. fishermen, processors, and labor. It seems apparent from the actions and correspondence by key elements of Congress and departments of government that this goal is strongly endorsed and is to be fostered to the extent possible. "To the extent possible" may be the caveat that could limit the possibilities of Americanization and set the scene for future intrafamily conflict.

The hopes for developing the processing sector of the U.S. industry ride on the crest of strong U.S. control over significant fishery resources of vital interest to Asian and some European countries. Processors and fishermen have banked on entering the large national whitefish market by harvesting the highly abundant pollock and other groundfish resources in the Gulf of Alaska and Bering Sea. High catch rates, the productivity of U.S. fishermen, and advanced technology appeared to provide the potential for supplying U.S. markets with high-quality competitively-priced fillets. Similarly, the use of pollock to supply a rapidly expanding U.S. surimi/product market has also been seen as a lucrative possibility. But these aspirations are largely based on the premise of a U.S. commitment to selective allocation of TALFF and/or joint ventures to nations that would assist U.S. fishery growth and not generate further problems resulting from export into U.S. markets of fish caught by foreigners in the U.S. FCZ.

It is at this stage that conflicting U.S. interests and intrafishery family disputes are likely to test the level of coalition unity and the implied national commitment. The growing number of joint ventures with nations that are expanding their exports to the U.S. of pollock and cod products caught in the U.S. FCZ is rapidly dimming U.S. processor interest in expanded domestic processing activities. Failure to implement a strict and carefully controlled set of criteria related to allocation of TALFF and/or joint ventures may quickly scuttle the short term goals of total Americanization of the FCZ. Attaining this strict control, however, seems to be running head on with other fishery and national interests as indicated by the recent arrangement with the Poles, expanding contacts with Koreans, and potential developments with China.

The real question that requires Congressional and Administration attention is whether fulfillment of the Americanization dream is feasible in light of 1) conflicting national goals, 2) different user group interests, and 3) the range of economic factors impacting the U.S. processing sector. It is apparent that U.S. fishermen and processors cannot expect government protection on the U.S. market in the form of tariffs. If allocation of TALFF and authorized joint ventures are not controlled in a strict manner to achieve this goal, then the

U.S. industry should not be left dangling with the expectation that government can or should provide the control required to achieve rapid Americanization of the FCZ. It may be a hard pill to swallow, but the Councils and users will all be better off knowing the reality of government's intentions or limitations. This policy is not likely to be shaped by the fishery family alone but may be impacted by a variety of national interests. It is better, however, that the policy be shaped now rather than after significant fishery investment that may ultimately go down the drain. If conflicting national goals make it unlikely that allocations and joint venture developments will be used selectively to achieve full use of the fishery resources by American processors, then both fishermen and processors have alternative options that can and should be explored in order to optimize benefits to U.S. interests.

APPENDIX I

MEMORANDUM OF DISCUSSIONS CONCERNING COOPERATION BETWEEN THE U.S. AND JAPANESE INDUSTRIES FOR 1984

A. Delegations of the commercial fishing industries of the United States and Japan met in Anchorage, Alaska, on November 4-6, 1983, to discuss the technical and economic feasibility of expanding Japanese purchases of U.S. bottomfish and bottomfish products. Government officials of the United States and Japan attended the meetings as observers. Mr. Clement Tillion served as the meeting chairman. The Japanese delegation was headed by Mr. Fumio Imanaga, Managing Director of Nippon Suisan Kaisha, Ltd., and Director of the Japan Deep Sea Trawlers Association. The United States' delegation was headed by Mr. Ronald Jensen, Chairman of the Board of the National Fisheries Institute and President of Sea Alaska Products. The members of the delegations are listed in the attachments.

B. During the course of the meetings, the two delegations reviewed and discussed their 1983 joint venture fishery operations and problems experienced in those operations. Both sides agreed that joint venture operations would be based on these premises:
   1. economic feasibility on both sides; and
   2. consideration of technical problems and resource issues and the negotiation of contract terms agreeable to the individual parties involved.

C. The parties expressed their willingness and desire to participate in the enhancement and development of the mutually beneficial economic relationships in the fisheries field which they have enjoyed for many years. In the spirit of their long history of mutual cooperation, the

parties agreed to the following goals for future fisheries development:

1. The two delegations agreed that for calendar year 1984, Japanese over-the-side joint venture operations targeting on pollock and arranged on an individual company basis would be as follows:
   a. Bering Sea - 210,000 metric tons
      Shelikof Strait - 120,000 metric tons
   b. Furthermore the U.S. side requested an additional 30,000 metric tons from areas within the Fishery Conservation Zone where Japanese joint ventures have not previously operated. The Japanese delegation stated that Japanese fishing companies will endeavor to cooperate on an individual company basis to make such additional purchases if technical, economic, resource and other factors permit.
   c. Although the Japanese delegation could not project a higher purchase level at this time, additional purchases in excess of the above quantities might occur, depending upon areal, operational, resource and other factors.
   d. The Japanese delegation stated that a significant level of fishery allocations to Japan is integral to the achievement of their joint fishery projects. The Japanese delegation expressly conditioned its projections on full and timely release of U.S. fishery allocations to Japan. Furthermore, in making these projections, the two sides agreed that realization of these projections must be pursued in good faith but recognized that unforeseen events could prevent their achievement.
2. In addition to the above, the Japanese industry agreed to purchase marketable bottomfish species other than pollock and cod through joint venture fishery arrangements on an individual company basis to the extent that such species can be purchased under conditions which would permit commercially viable operations on both sides.
3. The U.S. delegation raised its concern regarding current trade policies impacting the competitiveness of the U.S. fish products entering Japan. The Japanese side acknowledged U.S. concerns and members of the Japanese delegation agreed to work toward the development of mutually beneficial trade in U.S. processed bottomfish products. Members of the U.S. delegation agreed to work toward the full and timely release of U.S. fishery allocations to Japan.
4. The Japanese delegation agreed to purchase marketable U.S. processed bottomfish products on an individual company basis to the extent that such products can be offered at a price and quality acceptable to the

Japanese market. The U.S. delegation noted that to achieve this goal, the issues in paragraph 3 must be addressed in good faith by the Japanese side. The U.S. stated its target of producing 50,000 metric tons.

5. Members of the Japanese delegation agreed to exercise their best efforts to maximize U.S. participation in all segments of the bottomfish industry in the Pacific Northwest. Members of the U.S. delegation agreed to exercise their best efforts to maximize harvest quotas for bottomfish resources of the U.S. Fishery Conservation Zone to the extent consistent with sound conservation principles.

6. It is the intention of both delegations that this memorandum shall in no way affect existing fishing agreements on other species, nor result in adverse trade barriers on other species. This agreement relates solely to aggregate projections of purchases and sales by the fishing industries of the United States and Japan. The two delegations agreed that this agreement shall not restrict independent actions by any company or person.

ECONOMIC DEVELOPMENT AND MANAGEMENT OF FISHERIES IN THE EXCLUSIVE ECONOMIC ZONES OF PACIFIC ISLAND STATES

L. G. Clark
Deputy Director
and
A. J. Slatyer
Legal Officer
South Pacific Forum Fisheries Agency

This paper draws on the authors' experiences within the South Pacific Forum Fisheries Agency Secretariat and reflects their personal perceptions of the outlook of states that are members of the Agency. As such, the views expressed in this paper should not be taken to represent the views of any member state of the Agency.

The Forum Fisheries Agency is established by a treaty to which all of the thirteen independent South Pacific states: Australia, Cook Islands, Fiji, Kiribati, Nauru, New Zealand, Niue, Papua New Guinea, Solomon Islands, Tonga, Tuvalu, Vanuatu and Western Samoa -- as well as the Federated States of Micronesia are party. The Marshall Islands and Palau participate in the work of the Agency as observers. The task of the Agency Secretariat is to assist member states to coordinate and harmonize their policies on the law of the sea so far as they relate to fisheries and to maximize the benefits for their peoples and for the region as a whole. That may seem a selfish goal, but the economic viability of some of these states depends on what they can win from their waters. These benefits can be realized by developing national fishing industries and by selling the resource to foreign fishing interests. Both of these goals are premised on their sovereignty over the fisheries, which is now generally accepted as customary international law.

The South Pacific is a vast area sprinkled with islands. The jurisdictional result of this geography is that large sections of this part of the Pacific fall within exclusive economic zones. Small pockets of high seas exist where these zones just fail to join. As a consequence, commercially significant fishery resources in the region live spend most of their lives within some national jurisdiction and most fishing in the region is carried out under the authority of national laws. This fact influences the planning of management arrangements that can most successfully conserve fishery stocks and maximize the benefits to Pacific Island states that accrue from the exploitation of those stocks.

The subject of this paper is the economics, rather than the mechanisms, of development and management. Nevertheless, one should be aware of this jurisdictional base as the framework for national and regional economic policy decisions. One should also be aware of the principal shortcoming of any document on this subject. In making generalizations about fisheries issues

over such a range of countries, the wide differences in the patterns of marine resources available, in historical attitudes towards fishing, in the social and economic importance of fisheries, and in levels of development tend to be disregarded. The differences are there but are too multifarious to address in a paper of this size.

For now, the only established commercial offshore fisheries resources are the highly migratory species of skipjack, tuna, and billfish. Pacific island government concerns over the management and development of these resources fall into three major areas. Firstly, they wish to develop national tuna fishing and processing industries. Secondly, they wish to control foreign fishing in their waters and extract maximum benefits from it. Thirdly, they are confronted with the need to coordinate their policies on the exploitation of these species with other states in the region and to develop cooperative relationships with distant water fishing states over the management of the resources.

Of these areas it is the first -- their aspiration to gain employment, incomes, government revenues, and foreign exchange earnings from industrial tuna fishing and processing -- which has highest priority in the medium term. Indeed, for some states tuna seems to provide virtually the only opportunity for industrial and export development, leaving aside for now the longer-term prospect of gains from seabed mining. For Fiji and the Solomon Islands, tuna is already a major export commodity and occupies a major role in their economic development strategies.

There were two earlier stages of development of national or locally-based tuna operations. The first began in the mid-1950s when bases were first opened for Japanese longliners fishing for albacore tuna for United States canners. The fish were landed in Tahiti, American Samoa, and Vanuatu. Later, the Japanese left this fishery for the more lucrative sashimi fishery. Their place was taken by Korean and Taiwanese fisherman, many of whom still fished under arrangements with large Japanese trading houses. These fleets are still there, but economic conditions have become difficult for them. Their numbers are falling.

The second stage came with the overall expansion of the Japanese pole-and-line fleets to meet booming demand for skipjack for canning in the early 1970s. Large pole-and-line vessels found good fishing grounds and stimulated interest in ventures based in the South Pacific. Joint venture canneries were established in Fiji and in the Solomon Islands. A major trans-shipper operated in Papua New Guinea, and Van Camp operated a base in Palau.

These ventures were by the late 1970s generating exports of frozen and processed fish worth around US$70 million. This success encouraged expectations of further major gains, especially after 200-mile zones were established. As it turned out, enlargement of the fisheries zone did not make tuna any easier to catch or market and did not make it any easier for small island governments to obtain capital for investing in the

risky business of tuna fishing. On the contrary, sluggish demand for tuna products and increases in supplies from new competitors in the industry have forced prices down and diminished returns, causing investment plans to be scrapped or deferred.

At this point, island governments have a choice. They have been pursuing strategies for tuna development based on the use of pole-and-line vessels and longliners which are relatively small, generate more jobs, are less complex, and require less capital than purse seiners. In the face of a drop in tuna prices from over US$1000 per ton to around US$700 per ton, these forms of fishing, without economies of scale, become less competitive. The alternative is purse seining which, even with smaller vessels, carries a higher risk, absorbs more capital, and creates fewer jobs.

But considerable uncertainty attaches to the question of participation by island countries in purse seining. The Western Pacific purse seine fishery has increased dramatically with recent improvements in technology. Until now the fishery has been the preserve of large Japanese and U.S. vessels. Favoured by their ability to stay on the fishing grounds for longer periods, to fish in rougher seas, and to search over larger areas of ocean, these vessels fish Western Pacific waters and land their catches in Japan or at U.S. ports in the region: Guam, Tinian, Pago Pago, and Honolulu -- or trans-ship to other places. Processing capacity has shifted away from the U.S. mainland because of production costs and out of U.S. territories because of taste changes which have reduced effective tariff barriers. At the same time, better knowledge of fishing grounds, improved designs of smaller vessels, and greater use of fish aggregating devices making it more viable to use smaller vessels and land them within the region.

Though the development of their own fishing and processing capabilities is the major goal of island governments, establishing control over and deriving benefits from foreign fishing have been the focus of their immediate attention. With the advent of exclusive economic zones, Pacific Island states assumed sovereignty over fishery resources which are harvested by over 1000 vessels, carrying the flags of large and powerful nations with whom island governments have diverse economic and political relationships.

The objective of FFA member governments in managing foreign fleets is quite clear. They seek to maximize the net gains to their countries from the operations of foreign vessels. To achieve this goal, they have adopted a notably positive attitude towards foreign fishermen. In return for non-reciprocal access rights, they will pursue the benefits of fees, technology transfer, development assistance, employment and information that well-managed foreign fishing operations can provide. This approach can result in stable overall access and flexible licensing arrangements for vessels whose flag governments are prepared to ensure that their fleets comply with the regulatory requirements of island states.

Pacific island governments have also adopted fairly tight controls on foreign fishing. All agreements in the region must comply with a harmonized list of minimum access conditions. These requirements are relatively rigorous in comparison to those applied by other developing coastal states, but they are not unreasonable. A Regional Register of fishing vessels -- in effect a bank of information on all foreign vessels which operate in the region -- works as a regional blacklist against vessels that infringe seriously upon the laws of any participating state and that do not submit to the legal processes of that state. Established only a year ago, the Register has been invoked once with very satisfactory results and evidence shows that it has encouraged foreign fishermen to comply with island governments' fisheries laws.

Information on vessels and on catches and fishing activities is collected on standard regional forms and processed at the South Pacific Commission in New Caledonia for scientific purposes and at the Forum Fisheries Agency for monitoring and negotiation purposes. Regular meetings are held among Agency states involved in fisheries agreements with foreign fishing interests, and Agency staff now participate in almost all fisheries access negotiations as technical advisers to the governments involved. There are training programs for national negotiators, data analysts, administrators and legal and enforcement officers.

Fisheries relationships between the South Pacific governments have several bases. Most of the cooperative activities described above arise from the work of the Agency. In addition, seven of the governments most closely involved with controlling foreign fishing are party to the Nauru Agreement Concerning Cooperation in the Management of Fisheries of Common Interest. All also participate in the work of the Tuna and Billfish Assessment Programme at the South Pacific Commission.

Relationships between the coastal states and the fishing states are largely defined within the terms of access arrangements which usually comprise a treaty between the governments of the coastal state and the fishing state and a subsidiary agreement with commercial interests. The treaty typically provides an overall framework for access regulated under the subsidiary agreement and casts obligations on the flag state to assume responsibility for the actions of its vessels. Detailed terms and conditions concerning the usual range of activities such as reporting, observers, fishing areas, licensing procedures, fees, and vessel identification are set out in the subsidiary agreements which may be renegotiated as the need arises. Individual Agency member states currently have these kinds of arrangements with Japan, Korea, and Taiwan. In addition, there are two separate multilateral agreements involving eight member states and the American Tunaboat Association. The focus of most of these arrangements has been developmental, aimed at encouraging new fleets to enter the fishery and at the exploration of new fishing grounds and technologies.

But the focus of interest is now changing to a coordinated approach to limiting fishing activity. That interest has two origins. From the economists comes the observation that scarcity creates value and that fee receipts should be increased significantly when the amount of licensed access is limited. From the biologists comes theoretical and empirical support for looking more closely at the impact of the recent expansion in fishing activity on the stocks and, more particularly, on the catches taken by existing fishing operators.

The impact of fishing levels on stocks is not viewed with alarm, but it seems clearly in the interests of all who depend on these resources -- foreign fishermen and their governments, national fishing managers and their governments, the regional agencies, and the fish processors -- to seek to improve research results and to prepare to establish a more coherent mechanism to control fishing effort.

That is not easily done. Generally the structure of institutional relationships between coastal states and fishing states generally is still in flux, especially with respect to highly migratory species fisheries. Previous types of arrangements for cooperative research and management of tuna resources such as IATTC (Inter American Tropical Tuna Commission) and ICCAT (International Commission for the Conservation of Atlantic Tuna) were developed in an era when, and in places where, there was no significant national jurisdiction over tuna. There has been little consideration of a form of arrangement which fully copes with the reality of extended coastal state sovereign rights. The prospects for any new arrangements in the South Pacific are unclear. There are some factors, however, which can be identified as likely to influence the shape of these arrangements.

For one, coastal states are likely to play a greater role, and fishing states a lesser role, in any management structure in the South Pacific. Pacific island states have derived considerable leverage from the size and contiguity of their zones. It is highly unlikely that many purse-seine vessels could operate profitably in only high seas pockets or in the zones of non-Agency states. Also, coastal states may be skeptical about involving fishing nation governments in any management arrangements.

Secondly, if a single management regime is established, it is likely to be relatively simple. There will probably be no need to set quotas by nationality of fleet or by zone. For now local fleets are small and largely concentrate on local skipjack fishing grounds. Any mechanism for limiting foreign catches is likely to either limit the number or capacity of operating vessels or to manipulate fees.

Lastly, discussion on this set of issues would not be complete without at least some reference to illegal fishing and to compliance control. It appears that where licensing agreements are in place, the extent of compliance with licensing conditions is relatively high. Fees are reasonably low, there is no limit on fishing effort, and penalties such as vessel

forfeiture and invoking of the Regional Register are relatively heavy. Illegal fishing occurs mostly when and where licenses are not available. A government may decide not to allow access to its zone to protect a local fishing industry, as in the Solomon Islands. Or illegal fishing may occur where negotiations on renewing an access agreement have broken off or where the vessel owner is not a national of a country or a member of an organization with whom a fishing agreement has been concluded.

Greater difficulties can be expected in the future if limiting effort shuts some operators out of licensed fishing and if, as seems likely, fees rise substantially at the same time, leading to greater incentives for illegal fishing. This perception has heightened interest amongst Agency member states in evaluating further forms of regional sanctions, in seeking to define flag state responsibilities more closely, in improving the reporting provisions, and in looking at strategies to make the best possible use of resources that are committed to surveillance and enforcement operations.

THE DEVELOPMENT OF MEXICAN FISHERIES AND ITS EFFECT ON U.S. RELATIONS

Roger W. Rosendahl

Finley, Kumble, Wagner, Heine,
Underberg, Manley & Casey
Los Angeles, California

INTRODUCTION

"The Development of Mexican Fisheries and Its Effect on U.S. Relations" -- I am going to exercise speaker's license, if there is such a thing, and further define the title of my presentation to read "The Development of Mexican Fisheries and its Effect on U.S. Relations With Mexico." I am underscoring this limitation to relations with Mexico because the effect of the development of Mexican fisheries on U.S. relations in several other contexts would also make a very interesting commentary, but this is not what I intend to address today.

I would also like to clarify for your benefit my own perspective on this issue. With the exception of some assistance I provided to the governments of Mexico, Costa Rica, and Panama in their preparation of coordinated responses to the United States government regarding the United States extraterritorial application of marine mammal protection regulations, my participation in the Mexican fisheries has been exclusively on behalf of private sector interests: U.S. tuna processing interests; large European, Italian-based, tuna processing interests; and various vessel-owning entities.

From the private sector viewpoint, issues like the effect of the development of Mexican fisheries on U.S./Mexican relations are frankly rarely a focal point. Moreover, as I hope to point out in more detail later, what may be most noteworthy about the development of Mexican fisheries, and the accompanying heated conflicts with the United States, is its lack of any significant effect on overall United States relations, and by this I mean of course relations outside the realm of fisheries.

The really interesting issue in the context of Mexican/American fisheries relations, and the one on which I intend to focus today, is an issue of economic competition and survival. Make no mistake; although governments are involved on both sides because of the nature of the issues involved, and more so on the side of Mexico, the real competition here is between the fishery industry of the United States, on the one hand, and of Mexico, on the other.

I should also point out that my particular experience has been focused in the tuna industry as opposed to shrimp or other important species of fish, and that my comments today will be colored heavily by my experience in that industry. For today's purposes, I am hopeful that my focus will be particularly useful. Both in terms of dollar volume of investment and dollar

volume of production and sale, tuna is clearly the most significant U.S. fishing industry. It is also the industry in which most of the really interesting issues arise, at least with respect to Mexican and U.S. fisheries relations.

My comments today will focus on the following:

What are the recent historical events and policies which form the backdrop for current Mexican/American relations in the fisheries context?

What are the principal policy considerations from the United States' side?

What are the principal policy considerations from the Mexican side?

What are the significant events in the U.S./Mexican fisheries relationship?

What are the implications of these events for U.S./Mexican relations?

What is the outlook for the future?

To help you follow the story I am going to be telling you today, I have put together a list (see Table 1) showing certain milestones in the history of the United States/Mexican fisheries relations and the approximate dates when they occurred. I underscore "approximate" because I did a lot of this from memory and I will not warrant that I am not a year or so off in at least a couple of cases.

WHAT ARE SOME OF THE RECENT HISTORICAL EVENTS WHICH PROVIDE THE BACKDROP FOR THE CURRENT STATE OF U.S./MEXICAN RELATIONS IN THE FISHERIES CONTEXT?

The history of the United States-Mexican fisheries has for years been characterized by jurisdictional conflict. Mexico, along with certain other nations, has claimed the right to exercise unfettered jurisdiction over fisheries up to 200 miles from its shores; the United States has denied that right.

It is interesting to note that the concept of a unilateral expansion of jurisdictional claims over fisheries originated with the United States itself. Shortly after the end of World War II, President Truman claimed the right to exclude foreign fishing from certain "conservation areas" in waters fished primarily by the American fleets. The rationale for the so-called Truman Declaration was the urgent post-war need to preserve United States marine resources.

Following the United States' lead, other nations including Mexico soon claimed their own exclusive fishing zones. Although the United States quickly abandoned its own claims, the other nations including Mexico did not. The Truman Declaration also called for international cooperation in fisheries management and the United States policy moved in that direction. By 1950 the United States and Costa Rica had formed the Inter-American Tropical Tuna Commission, commonly known as the IATTC. Eventually seven other countries including Mexico also joined the IATTC and for a little over ten years, starting from about 1966, the IATTC operated with varying degrees of effectiveness

Table 1
Milestones in Mexican-American Fisheries Relations

Date	Event
1945	Truman Declaration
	Mexico and other nations follow suit
1948	Chile and Peru propose 200-mile exclusive economic zones
1950	Organization of Inter-American Tropical Tuna Commission (IATTC)
1951	Ecuadorian vessel seizures
1954	Fishermen's Protective Act
1964	Mexico joins IATTC
1967	Fishermen's Protective Act of 1967
1976	Mexico declares 200-mile economic zone
	U.S. declares 200-mile economic zone-FMCA
	Mexico embarks on Fisheries Development -Palmar Example
1977	U.S./Mexico Treaty
	-Freeze on fishing within 12 miles
	-U.S. shrimp fishing to terminate in 1979
	-Mexico to allocate quota to U.S. vessels in Mexican economic zone
	-Tuna issue not affected
	-U.S. to provide names of vessels intending to fish for tuna
	Mexico withdraws from IATTC
	U.S./Mexico Treaty
	-U.S. to allocate quota to Mexican vessels in U.S. economic zone

1977	Marine Mammal Protection Act of 1977
1977-1980	U.S./Mexico negotiate regarding tuna problem
1980	Mexico makes large investment in fishing - Pescatun - Palmar - expansion of squid fleet
June	U.S./Mexico tuna negotiations break down
July	Mexico seizes U.S. vessels in economic zone
July	U.S. imposes embargo on Mexican tuna
	U.S. fails to allocate squid quota to Mexican vessels
December	Mexico terminates fishing treaties with the U.S.
1980-82	Mexican and U.S. tuna fleet expansions
1982	Tuna industry recession
	Pescatun liquidates fleet
	Oil prices flatten
	Mexican inflation
December	U.N. Law of the Sea Treaty
1983	Mexican debt crisis
	San Jose Treaty establishes regional licensing program among U.S., Panama, and Costa Rica
1984	Mexican debt reorganization (FICORCA)
	Palmar liquidates fleet
	Banpesca refinances Mexican fleet
	Mexico claims No. 1 position in tuna production

to regulate the fishing for yellowfin tuna in the Eastern Tropical Pacific, an area extending west from the coast of the United States and south all the way to Chile (see Figure 1).

I think it is fair to say that the IATTC was never a harmonious group. The Latin American members including Mexico were particularly unhappy with the "first-come, first-served" basis on which the catch within the regulated area of the Eastern Tropical Pacific was allocated. Because the United States had the largest fishing fleets, it consistently took the largest yearly catch. Eventually, the dissatisfaction reached the point where most of the Latin American members including Mexico withdrew from the IATTC and the IATTC has never quite recovered.

As early as 1951, certain Latin American countries, commencing with Ecuador, began enforcing their claims to 200-mile fisheries zones by seizing United States tuna boats found fishing within their zones. The United States' response, first in 1954 and later in an expanded version in 1967, was the Fishermen's Protective Act. This Act encouraged the U.S. tuna fleet to continue fishing in the 200-mile economic zones claimed by Latin American countries in the Eastern Tropical Pacific by providing insurance coverage reimbursing vessel owners for the value of a lost vessel and equipment as well as the cost of fines paid to the foreign government. In this way, each U.S. tuna boat became in effect an agent of the United States government, declaring by its actions the United States' refusal to accept the expansion of jurisdictional claims over fisheries.

WHAT ARE THE PRINCIPAL POLICY CONSIDERATIONS FROM THE UNITED STATES' SIDE?

Let us examine for a moment the principal policy considerations behind the United States' position against an expanded fisheries jurisdiction. They are basically twofold: security interests and economic interests.

From a security standpoint, the United States Departments of State and Defense have consistently pointed out the importance of freedom of the seas. As many of you will recall, freedom of navigation of the seas was a very important issue for the United States in the recent Law of the Sea Treaty negotiations.

How does freedom to fish affect freedom of navigation? As I indicated earlier, tuna vessels in particular, because they ply the seas worldwide, have been useful purveyors of the American view of freedom of the seas. Any retreat from this position posed the threat of setting a precedent which might later result in more limited movement on the seas for security purposes.

From an economic standpoint, the United States, until recently, saw little to gain by restricting access of foreign fishermen to U.S. waters and saw much to lose by tolerating restricted access of United States fishermen in foreign waters. By and large, until the 1970s at least, U.S. fishermen suffered

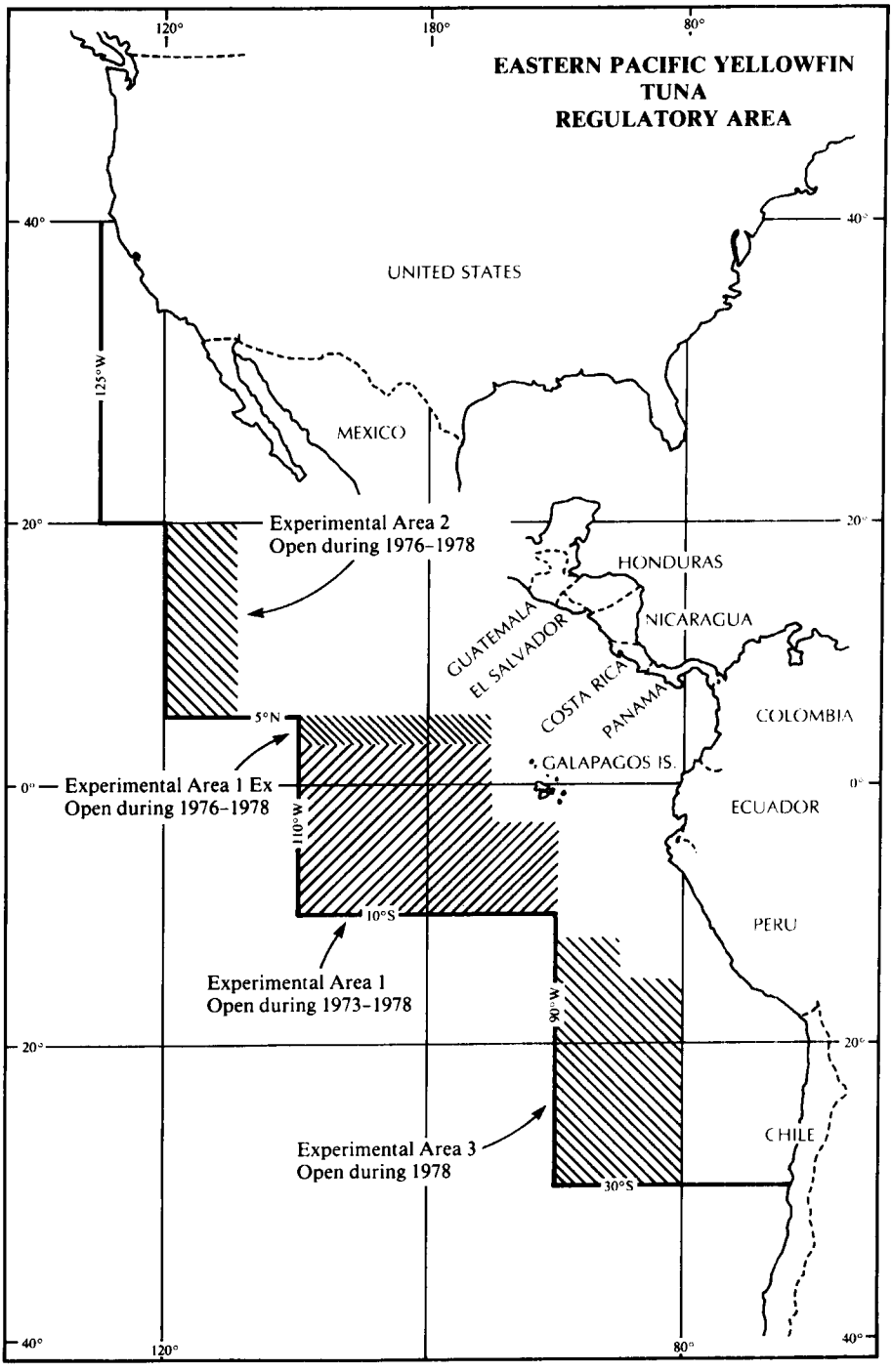

EASTERN PACIFIC YELLOWFIN
TUNA
REGULATORY AREA
120°
180°
80°
40°
UNITED STATES
125°W
MEXICO
20°
Experimental Area 2
Open during 1976–1978
HONDURAS
GUATEMALA
EL SALVADOR
NICARAGUA
COSTA RICA
PANAMA
COLOMBIA
5°N
GALAPAGOS IS.
0°
Experimental Area 1 Ex
Open during 1976–1978
110°W
ECUADOR
10°S
PERU
Experimental Area 1
Open during 1973–1978
96°W
Experimental Area 3
Open during 1978
CHILE
30°S

Fig. 1.

relatively little from foreign competition in U.S. waters. On the other side of the coin, the U.S. tuna fleet and, until relatively recent times, a substantial portion of the shrimp fleet, took the vast majority of its catch from waters off foreign shores.

In the case of tuna, the principal argument which the U.S. has consistently employed against efforts to impose jurisdictional claims focuses on the highly migratory character of the species. Because tuna are constantly migrating from the waters off the coast of one nation to the waters off the coast of another, sometimes for thousands of miles, they belong to no one. After all, how can you claim as your own something which is only passing through, like a passenger on a bus?

As you will see in a moment, the U.S. perception of economic interests has in recent years undergone substantial change.

WHAT ARE THE PRINCIPAL POLICY CONSIDERATIONS FROM THE MEXICAN SIDE?

Let us look now at the principal policy considerations from the Mexican side.

Stated simply, Mexico's principal policy consideration has been its interest in controlling and reaping the benefits from a substantial natural resource. The justifications and arguments for this interest are manifold. The resource is physically adjacent to Mexico and, following the arguments of numerous other countries for the 200-mile exclusive economic zone, ought to be controlled by Mexico. Mexico is a developing country and needs access to such resources. Mexico has a growing population to feed and protein from the seas is one answer to the problem.

With particular reference to tuna, Mexico's objectives have in recent years become more focused. Having watched for years the growth and success of the American tuna industry, many a Mexican must have thought: "Why them? Why not us?"

I suspect that this thought gathered considerable force following the 1974 recession, which was particularly acute in the tuna industry and which was attributable in substantial part to the rising cost of fuel for tuna vessels. Having witnessed the critical role of fuel in cost-efficient tuna operations, Mexico could see its significant natural advantages in this respect.

First, it had a blossoming oil industry which would permit it to provide, if it so chose, fuel for Mexican source vessels at a fraction of the cost to its northern neighbor. Second, whereas United States vessels had to sail for days in order to reach their fishing grounds, the most productive fishing ground in the world at that time, the Eastern Tropical Pacific, lay off the coasts of Mexico. Third, the United States tuna industry suffered from high labor costs. Labor in Mexico was relatively inexpensive. Fourth, Mexico needed a productive outlet for its burgeoning oil revenues. What better choice than an industry in which it already enjoyed so many natural advantages and which

could be counted on to address one of Mexico's most pressing problems, a fast-growing population and a slower-growing source of protein.

I have to believe that the principal location of the American tuna industry in California and, in particular, the base of the San Diego fishing fleet in San Diego, must have played some role in this view. After all, San Diego is only a short drive north from the Mexican fishing port of Ensenada. Why could not Ensenada, with all of its natural advantages, or Mazatlan, a thousand miles to the south, or both, develop major tuna industries of their own? Indeed, tuna vessels are moveable items. If Mexico was in fact a better place to operate a tuna vessel, perhaps the San Diego fleet or at least a portion of it might be persuaded to relocate.

Another factor may have played some role at least in the back of the Mexican mind. Mexico has long lived in the shadow of its powerful neighbor to the north and has, I believe, perhaps even more than Canada, suffered from a Big Brother syndrome. Challenging the United States in an industry which it has traditionally dominated not only made sense from an economic standpoint but, if successful, would provide a certain degree of satisfaction and even pride, a satisfaction and pride already kindled by Mexico's early oil successes.

The Big Brother syndrome, which I must say is pretty much a one-sided perception largely from the part of Mexico, has in my view played a significant if not so obvious a role in the negotiations and the heated disputes which have characterized the Mexican-American relationship in fisheries over recent years. In my view, moreover, it will continue to play a role in future negotiations and, in particular, in fueling Mexican determination not to succumb to Big Brother's intimidation in the fisheries context.

WHAT HAVE BEEN THE SIGNIFICANT EVENTS IN THE U.S.-MEXICAN FISHERIES RELATIONSHIP?

Earlier I outlined very briefly a few of the more significant historical events in the evolution of the Mexican-American fisheries relationship. I would like now to focus on more recent events.

Perhaps based upon some of the considerations just outlined, the Mexican government concluded in late 1975 that, notwithstanding United States disapproval, it would establish a maritime economic zone of 200 miles in which it would control all resources. By 1976, the appropriate Constitutional amendment and legislation had been passed and signed by the President. The Mexican government indicated that it would allow foreign fishing vessels to purchase licenses to fish only for those species which Mexico could not itself harvest.

Coincidentally, at almost the same time, traditional views in the United States concerning freedom of the seas were undergoing a major change. Over-fishing of traditional U.S. fishing grounds, particularly by Soviet and Japanese "floating

factories," created major political pressure on the United States Congress for restriction of U.S. fishing grounds to U.S. fishermen. Notwithstanding strong opposition from the U.S. tuna and shrimp industries, who were concerned with the implications worldwide of U.S. establishment of its own fisheries economic zone, and notwithstanding opposition from the Departments of State and Defense on national security grounds, the Congress passed the Fishery Conservation and Management Act of 1976. In this Act, the United States established an exclusive management authority over an area 200 nautical miles from the United States' coast. Within this zone, the United States was to exercise fishery management authority over all fish.

In order to accommodate the tuna industry, however, an important exception was made in the Act for "highly migratory species," which are defined in the Act as highly migratory species of tuna. Moreover, in addition to exempting tuna from regulation under the Act, and thereby preserving the United States' argument in opposition to regulation of tuna by other countries, the Act bolstered the worldwide bargaining position of the U.S. tuna industry in a significant way. Recognizing the importance of the United States as the world's principal consumer market for processed tuna, the Act provided that if an American tuna vessel is seized by a foreign country on a claim of jurisdiction not recognized by the United States, the Secretary of the Treasury must impose an embargo upon the importation of all tuna products from that country.

Although on its face the Fishery Management and Conservation Act seems to very much favor the tuna industry, as I pointed out earlier the Act was strongly opposed by the industry for a very good reason. By asserting jurisdiction over a 200-nautical-mile zone, the United States implicitly recognizes the right of other nations to do likewise.

Apart from the difficulty of attempting to carve out any kind of an exception to such a sweeping assertion of jurisdiction, the credibility of the tuna industry exemption suffers from at least two other weaknesses: First, the United States has not been consistent in its argument that "highly migratory species" are not subject to the management control of any nation. As a result of strong pressure from the sport fishing industry, swordfish and marlin, for example, which are clearly classified as "highly migratory species," are included in the fish subject to management under the Act. Second, exempting tuna from the jurisdiction of our 200-mile zone is not especially meaningful since there are very few tuna within our 200-mile zone.

To quote the views of several Congressional opponents of the tuna exemption from the Act, including Congressman McClosky,

> the proponents ... are urging that we have the right to regulate all fisheries within our 200-mile zone, except for species that do not exist there. For those species, they ask that we enact a special law to demand that the 200-mile zone be inapplicable when

claimed by other nations if they include migratory species such as tuna.

I would simply add to this comment that the awkwardness of the United States' position under the Act is clear to everyone, including the U.S. tuna industry. It is precisely for this reason that the tuna industry so strongly opposed the Act and why some view the Act as a sellout of the tuna industry in favor of the more politically powerful fresh fish industry. Once it became clear that the Act would become law, however, and that the United States would declare its own 200-mile economic zone, the exemption for tuna and the accompanying embargo provisions, however logically indefensible, became critical to preventing the tuna industry from being totally overrun by the expanding jurisdictions of maritime nations.

Having each established 200-mile exclusive economic zones, both Mexico and the United States saw a need to negotiate new agreements concerning fisheries as well as new maritime boundary agreements recognizing each country's extension of jurisdiction. In 1976 and then again in 1977, Mexico and the United States entered into an agreement governing fisheries.

Under these agreements, Mexico was to allocate to United States fishing vessels a quota of the allowable catch, if any, for those fisheries where there was a <u>surplus</u> above the harvesting capacity of Mexican vessels. Similarly, the United States was to allocate to Mexican fishing vessels a quota of the surplus, if any, beyond the harvesting ability of American vessels. U.S. shrimp fishing in the Mexican economic zone was to be limited and was to terminate in 1979. Licenses on bait boats which had traditionally fished within the 12-mile territorial zone of Mexico were frozen so that no new licenses could be issued and existing licenses would expire as each licensed vessel went out of service or changed ownership.

Apart from the freeze on licensing of bait boats, which were primarily tuna vessels operating within the 12-mile territorial zone in order to obtain bait, the U.S.-Mexican treaties did not resolve the issue of regulation of tuna. In the 1976 treaty, the United States simply agreed to provide to Mexico the names of United States flag vessels intending to fish for tuna and to transmit on behalf of such vessels the payment of a fee in connection with the issuance of a certificate for each vessel. Nowhere in the treaties did Mexico provide any assurances that such vessels would be allowed to fish in its declared 200-mile economic zone.

At about the same time these treaties were signed or some time thereafter, both Mexico and the United States took steps to bolster the ability of the fishing industries to harvest increasing shares of fish. For its part, the Mexican government invested millions of dollars in fishing vessels, processing facilities, and even shipyards. Much of their funding was obtained from external sources both private and public, including an $80 million fisheries development loan from the Inter-American Development Bank.

For its part, the United States, in the American Fisheries Promotion Act of 1980, tightened the restrictions on foreign vessels fishing in its waters.

The Mexican focus was on tuna, and it was the failure of the Mexican-American treaties to resolve this issue which eventually led to their demise. In 1977, unable to obtain the quota allocations which it had sought from the Inter-American Tropical Tuna Commission, Mexico withdrew from that organization. During the next three years, Mexico and the United States met fifteen times to attempt to negotiate a solution to the tuna problem. To no avail, however, and the negotiations eventually broke down.

Mexico reacted quickly to this breakdown in negotiations by arresting, fining, and confiscating equipment from the United States tuna seiners fishing in Mexico's declared economic zone. The United States responded equally quickly by imposing the mandatory embargo on tuna products from Mexico required under the Fishery Conservation and Management Act of 1976. In addition, notwithstanding the significant investment that Mexico had made in squid fishing vessels, the United States refused to allocate to Mexico a quota for squid fishing off the New England coast. Mexico responded in December of 1980 by terminating its fishery treaties with the United States.

Why did Mexico finally decide to play hardball with the United States? I suppose Mexico itself would answer that, as things were going, it was not getting anywhere in bringing the United States to a reasonable position. The answer, of course, is not so simple. Why did Mexico feel that it was in a position to begin seizing U.S. vessels, knowing that the consequences would be an immediate United States embargo? Ordinarily, it would take a great deal of confidence and determination to make such a move.

The answer is, I believe, that at this particular period, Mexico had a great deal of confidence and determination. It had, as I pointed out earlier, a number of natural advantages over the United States in terms of low-cost tuna production. It had growing oil reserves and accompanying financial flexibility. Most importantly, however, I believe that Mexico had made the commitment to the development of a Mexican fisheries industry. There was no turning back.

From about 1976, or the same year in which Mexico declared its 200-mile economic zone, Mexico began looking seriously at ways to develop its fishing industry. One way was to encourage development by the private sector. Accordingly, Mexican government officials approached the VISA and Alfa groups in Monterey, the two preeminent Mexican corporate conglomerates, and politely suggested that they consider the fishing industry as an area of investment. Another road to fisheries development was encouragement of investment by foreign tuna processors or vessel operators, who could provide not only financing but expertise. A third approach was simply direct investment or financing by the Mexican government.

Through a combination of these various approaches, investment in the Mexican fisheries industry grew substantially. The VISA group from Monterey, Star-Kist Foods from California, and SOPAL, a large Italian tuna processor, combined to form Palmar, the first major Mexican tuna joint venture, and a project which I had the good fortune to help put together. The Mexican government worked out an arrangement with Van Camp Sea Foods of San Diego and Ed Gann, a San Diego tuna vessel operator, to form Pescatun.

As expected, a number of U.S. flag vessels relocated to Mexico and at one point Pescatun owned and operated ten purse seine tuna vessels. Hopes were high for further relocations to Mexico. I can recall a comment of the Chairman of the Mexican Fishing Association, Felipe Charat, that San Diego boat owners should move to Mexico soon, because Mexico might stop accepting additional flag changes.

All in all, confidence and hopes were high.

What happened?

What follows sounds very much like a hard luck story. Within one or two years after Mexico terminated its treaty with the United States, the prospects for the Mexican industry began to take a marked turn for the worse. A number of factors combined to bring this about. Because of the United States embargo, Mexico had to look elsewhere, primarily to Western Europe, Japan, and Canada, to market its growing tuna production. Unfortunately, these alternative markets were not sufficient to enable Mexico to sell its production at prices which could turn a profit.

Efforts to develop the domestic market met strong consumer resistance in the traditional Mexican distaste for fish. 1982 saw a worldwide recession which hit the tuna industry particularly hard. In fact, an argument can be made that the industry has yet to recover. The prices for both raw and processed tuna began to drop. Oil revenues, Mexico's growing strength, began to flatten, and inflation began to run rampant, reaching upwards of 100 percent.

Because of a worldwide overbuilding in new tuna vessels, in many cases for tax and other reasons wholly unrelated to production prospects, the average production per vessel dropped substantially. Adding insult to injury, the weather changed and a current known as "El Nino" created conditions which moved a substantial portion of the available catch from the Eastern Tropical Pacific into the regions of the Western Pacific far from the coasts of Mexico.

Like many other segments of the Mexican economy, decreases in productivity in the fishing industry and rising interest rates on foreign debt, particulary the foreign debt on tuna vessels financed at floating rates, combined to create a debt crisis in the tuna industry paralleling the debt crisis of the nation as a whole.

In 1982, Pescatun, the largest single tuna vessel operator in Mexico, was dissolved and many of the vessels returned to the United States flag. In 1984, as a requirement of its

restructuring of debt with its foreign debtors, VISA sold its fishing operations and withdrew from the industry. Alfa, which had not yet become fully involved in the fishing industry, was prevented from doing so.

The Mexican fishing industry, it seems, had fallen victim to a combination of poor judgement -- overplaying its hand with the United States -- and plain bad luck.

Such was the situation with the Mexican fisheries as of six to nine months ago, or about the date that I was invited to deliver this presentation.

Before I update you on events in the period since that time, with perhaps a couple of comments on prospects for the future, I would like to briefly address some of the implications of this story for United States-Mexican relations.

WHAT ARE THE IMPLICATIONS FOR UNITED STATES/MEXICAN RELATIONS?

The principal implication of the foregoing events for U.S.-Mexican relations and the principal lesson to be learned from them is, I believe, a positive one. As I indicated at the very outset today, in my view the U.S.-Mexican tuna controversy, more often referred to as a "tuna war," as heated as it had been at times, has not had any major detrimental impact on U.S.-Mexican relations in other countries. Although there was a good deal of ill will at times as a result of the conflict, I do not believe that Mexico holds the United States responsible for the decline in the tuna industry which I have just described. Although the tuna embargo did play some role, other factors which I noted played a much more important role.

More importantly, I consider the Mexican-United States experience as an encouraging example of the ability of two neighboring countries with close common interests to confine even severe disputes within controllable barriers so as not to allow them to spill over into more serious areas of international relations.

In this respect, I think we can look to the parallel experience that the United States had had with Canada in exactly the same area. This paper might well have been entitled "The Development of Canadian Fisheries and Its Effect on U.S. Relations." Like Mexico, Canada also showed its determination in this dispute by seizing U.S. vessels fishing in its waters and, like Mexico, is similarly undergoing an embargo on tuna products. Nevertheless, Canadian-American relations proceed as they always have and, as in the case of Mexico, disputes such as this one are more properly cast as domestic skirmishes over legitimate differences of opinion and interests than as relationship-threatening international incidents.

WHAT IS THE OUTLOOK FOR THE FUTURE?

What is the outlook for the future? As many have noted, the best clue to the future is the past. Given the story I have just told you, does this then mean there is no future for Mexican fisheries?

If my story had ended six months ago, I would have said "yes," and at this point added a few ceremonial words expressing admiration for Mexican gutsiness coupled with an admonition about taking care when you are playing with the big guys.

But the story did not end and, indeed, a number of developments have occurred within the last six months or so which throw a significantly different light on prospects for Mexican fisheries.

With the establishment of the FICORCA trust, Mexican debt had been restructured and the debt crisis considerably eased. At the same time, inflation has subsided somewhat from earlier levels. Banpesca, the Mexican government bank formed for purposes of financing the fishing industry, has decided to finance or assist in refinancing virtually the entire Mexican fleet.

More importantly, production of the Mexican fleet is up over 250 percent over the same period last year. Although Mexico may not, as it has claimed, overtake the United States in tuna production this year, if trends continue it is entirely possible that it will do so in the not-so-distant future.

All well and good, but as the gentlemen at the State Department have asked, in view of the embargo, where is all this production going? I will tell you where it is going. Nowhere. It is staying in Mexico and it is being consumed by Mexicans, so much so that the Mexican government at this point is not granting permits for export. While not thanking the United States for its part, Mexico has pointed out the benefit of the United States embargo in forcing Mexico to accelerate the assimilation of its production into the domestic market.

In short, the outlook for the Mexican fishing industry is much brighter today than it was one year or even six months ago.

What about the long term? Who will be the survivors in this industry, Mexico or the United States?

I am going to take a big risk here and put my money on Mexico. Keep in mind that I am talking about the "long term." To be sure, they have had and they will continue to have their share of problems in this industry, but the natural advantages I described earlier, the determination which I described earlier, and most importantly, the apparent successes in developing a domestic market are all very much in Mexico's favor.

Let us look for a moment at the United States' side. Although it may take a long time for people to realize and accept, I think that the game is essentially over. Problems and cost pressures of both processing and raw tuna production industries are manifold and intractable. Van Camp is packing in Thailand. Star-Kist will close its Terminal Island facility next month and is also looking at Thailand which, incidentally, because of the significant advantages it enjoys in both availability of low-priced raw material and low-cost labor, is rapidly developing into a major processing center.

Similarly, the United States tuna vessels are operating at extreme competitive disadvantage. Fuel, debt service, repair and maintenance costs, crew costs, and insurance are all much

higher here than in many other parts of the world. The pressures to move vessel operations offshore are therefore substantial.

In short, I predict that, in years to come, the U.S. tuna industry will look much different than it does today with a much greater component operating beyond the shores of the United States.

I would like to conclude with a word on the future of U.S.-Mexican relations on the fisheries issue. I do not believe a solution to the problem with Mexico will be easily attained. I think I have made sufficiently clear that Mexico is very determined to be successful in its development of a powerful fisheries industry. Notwithstanding some significant setbacks, its prospects today are encouraging. As opposed to bringing Mexico to its knees, the American embargo has apparently had the reverse effect -- a point which ought to be taken into account by our U.S. negotiators.

Still, lifting the embargo would be an overall benefit to Mexico, and topping this with concessions in allocations of quotas in squid and other fish in U.S. waters would give the United States something to offer. Hopefully a solution can eventually be reached with Mexico similar to that contained in the San Jose Convention, which is essentially a regional licensing program.

In the context of future Mexican-American fisheries relations, it is a particular shame that joint Mexican-American enterprises as exemplified in the Palmar and Pescatun projects were not more successful. Indeed, had they even survived the rough period of Mexican fisheries, there might be a greater prospect today for a combination of the seasoned experience of the U.S. industry with the natural advantages and determination of the budding Mexican industry, possibly with benefits for both.

Perhaps it is not too late.

COMMENTARY

Lee Anderson
College of Marine Studies and Department of Economics
University of Delaware

I learned a lot from Lee Alverson's paper, but it would be presumptuous of an East Coast person to comment on matters of fact or interpretation of Alaska fisheries problems with a person who spends a great deal of his working time on the subject. So what I propose to do is to make some general comments on this topic which, I hope, have general implications.

The first point I would like to make is one that Lee emphasized in the written version of the paper. For fisheries development to proceed until the industry can stand on its own, the economic returns must be there. Legislative intent is simply not enough. The carrots and sticks provided through laws and policies help in both the short run and the long run. Subsidies are obviously going to help get a fishery going, but once they are removed, if the economic returns are not there, the industry will falter. The "Fish and Chips" policy, to the extent that it is used (and Lee mentioned some problems with its implementation) is one stick the United States government is using to spur development. The carrot for those countries that do participate in joint ventures is sometimes a greater percentage of the TALFF. Obviously these things can affect the overall rate of growth, the type of growth, and the relative rates of growth of different domestic fleets and of the domestic versus the foreign components of the fishery.

I might add that one of the main reasons that I, as an economist, am interested in the law of the sea is this very issue: how do laws and policy affect the ultimate utilization of marine resources? But it is important to realize that at the end of the day it is the bottom line that counts. Government policies can help development, but there are limits. The firms and the foreign countries must make profits, directly or indirectly. A firm or a country can take a loss on a joint venture project as long as it earns enough in the directed fishery, to which it otherwise would not have access, to make up for it. In addition, some countries have other goals such as employment and/or maintaining a presence in an area. But the returns, in one form or another, have to be there in order for a fishery or an underutilized stock to develop.

An issue that Lee did not discuss in any detail is the problem of development versus management. I like to think of this as a kind of accelerator-brake problem. Development policies are those that help accelerate growth in an infant fishery: establishing markets, developing ports, developing distribution channels, etc. Often a problem with a new fishery is that processors say they'd love to handle a fish if they were assured of a source of supply and, at the same time, the fleet says they would love to harvest that same fish if they were

assured of a market. That's the chicken and egg problem. Development policies may be able to break the fishery into the open. Once the distribution channel is established, the fishery can run on its own. Management, on the other hand, is a sort of brake on utilization. The purpose of management is to stop the industry before it runs over the resource with an overly large fleet.

The problem is that often the accelerator and the brake are not applied at the proper strength or at the proper time. In many national and international organizations, these two functions are handled separately by distinct departments that often don't communicate with one another. While one department is applying the accelerator, another department is applying the brake, and it is difficult to have smooth utilization. I think it is useful that the Councils have some say in both areas in that they have input on joint venture decisions. They certainly do not have full control over development, however.

In this regard I would like to make the following suggestions for developing Alaskan fisheries, although they would apply to any other fisheries as well. The first suggestion is to manage the fishery before over-exploitation occurs. It is much easier to stop entry into a fishery than it is to face the problem of reducing it. From an economic point of view, pulling vessels out of a fleet when they may have no alternative use is wasteful. Politically it is very difficult to get agreement on a regulation program that has to pull people out of a fishery. Neither of these problems exist if entry is stopped early, however.

A second suggestion is to "do it right the first time" because there are often problems with making mid-course corrections. An example of not doing it right the first time is the New England groundfish regulation program. This is a very complex fishery and I'll admit that I'm simplifying things greatly. The program started out with a total quota which was broken down into quarterly quotas, which were broken down into area quotas, which were broken down into trip limits, which were further broken down into trip limits per size of boat, etc. Pretty soon the regulation program got so complicated that neither the managers nor the industry knew what was going on and both became very frustrated; they gave up, threw the whole thing out the window, and started again. It's my contention that the bad taste that was left in everybody's mouth after this failed attempt at management is one of the reasons why the management scheme that is proposed to replace this complicated one is a simple program of size limits determined by mesh controls and maybe by closed areas. There is no other constraint on effort in the fishery. I think this plan was chosen because it was the only one the industry would agree to after all of the trouble they had with the other program. They simply threw the baby out with the bath water. The proposed program does not address the open access problem which Jim Crutchfield discussed yesterday.

An example of doing it right the first time is the offshore fisheries of New Zealand. With the advent of their 200-mile

zone New Zealand discovered a very rich resource of orange roughy, and they adopted a transferable individual quota program where each firm in the industry was granted the right to catch a certain amount each year. This scheme solved the open access problem before the fleet was too large. Additionally, these rights could be transferred between firms to help insure flexibility and efficiency in harvest. There are some who say that this type of program will not work because of the administrative detail. I happen to have been in New Zealand in August at a meeting, and during a coffee break I was out in the foyer with the CEO's of two fishing firms. One of them got a telex from a captain on one side of the island saying that they had run into a school of fish for which they didn't have a quota. The CEO of the other firm happened to have some remaining on his quota for that fish, but his boats were on the other side of the island. They haggled a minute over a price, shook hands, and the transaction transferring a quota for that year from one firm to the other was completed before my eyes. Both of them sent a telex to the Fisheries Minister indicating their agreement and that was the extent of the paperwork.

Another interesting thing about this type of a program is the fact that it is enforceable by an accounting audit of the firm. By checking the books the government can determine if firms have harvested more fish than they have rights for. This is far cheaper than at-sea or dockside enforcement.

Now the point of my story was not to discuss various types of fisheries management although I hope the subtlety of the comments was not lost. My point was the importance of doing it right the first time and the strengths and weaknesses of the individual quota. Management notwithstanding, it is working in New Zealand, the industry likes it, and there is no incentive to change. Therefore the fishery will not face the disruption of a management flux as did the New England groundfishery. In addition, the open-access problem was addressed before the fishery was over-exploitated. In fact, they are having such good luck with this system that they are now trying to introduce it into their inshore fisheries which suffer from overcapitalization. It will be interesting to see if they are successful.

In summary, government policies can definitely help in the development of under-utilized stocks. Furthermore, some programs work better than others, and so careful policy choice is necessary. However, while policies can help break some of the barriers to development, in the long run they cannot make fundamental changes in true bottom-line profitability. Finally, successful development always leads to the necessity of management, and therefore development and management should be considered jointly.

COMMENTARY

James Joseph
Director of Investigations
Inter-American Tropical Tuna Commission

I would like to clarify one thing before I go any further: I want to make sure that everybody understands who I work for. The program says that I am with the "American Tropical Tuna Association" and I do not want to be confused with the American Tunaboat Association whose objectives are quite different from mine. I am an international public servant and I run a quasi-scientific organization, although much of my time the last ten or fifteen years has been spent in politics. I represent a number of governments, one of which is the United States. What I have to say today is not only as the director of the Inter-American Tropical Tuna Commission but as adjunct professor at the University of Washington and at Scripps Institution of Oceanography.

My interests in the panel's deliberations are principally with the eastern Pacific and Mexico. I have to agree with Tony Slatyer's comments regarding the western Pacific and the interests of the developing island states. Tony mentioned that the western Pacific is essentially a water area, an ocean area. In fact the sea-to-land ratio is about 53 kilometers to 1, whereas in the United States it is approximately less than a kilometer to land mass. There are about 5 million people in the western Pacific, and if we remove the population from Papua New Guinea and Fiji, 1.5 million people remain among all of these small, emerging nations. So the ocean is very important per capita to the people. The gross national product of many of those countries is on the average less than $50 million, and for some of the countries only several million dollars. When we put that in perspective with the cost of a tunaboat which might be anywhere from $5 to $10 million and the gross receipts from tuna sales which are anywhere from $3 to $4 million, we can quickly see how important this industry becomes to the people of the western Pacific Ocean. In commenting, I want to keep in mind these economies of scale.

To exercise this new-found jurisdiction over resources in the western Pacific and in any other particular place with respect to tuna, we really have to say something about the fish, too, because tuna are somewhat different from most fishes. It has been alluded to, but in fact I would just like to comment, that the tuna and the tuna fisheries are quite different. The tuna themselves are very mobile animals, some species more than others. Some of the species transit oceans in a matter of months; some of the species are less mobile but transcend jurisdictional zones quite readily. On one day they may be within the jurisdiction of one nation, two or three days later within the jurisdiction of yet another, and after that on the high seas. The fleets that fish tuna are just as mobile as the

tuna themselves; they go all over the world in pursuit of tuna, some vessels fishing two or three oceans of the world in a particular year. Likewise the markets for tuna are international, and what happens in one area with respect to sales affects sales in another area.

There are four or five major problems in the management and exploitation of tuna that I would like to comment upon. When I say "management" I am talking about all of the public-sector decisions made with reference to fisheries, not just conservation. One thing we really need to know to manage tuna fisheries is something about the animals themselves. We need to know how many are out there in the ocean and how they behave. We need to know the effect of the fishery upstream on a fishery downstream, and this is particularly important in the western Pacific. It is important all over the world. Once we know how much fish there are, we have to treat the problem of who gets what share of what is there. Although this is not yet a problem in the western Pacific, as Mr. Slatyer mentioned, because the nations there have not developed large fisheries, it is indeed a very important problem in the eastern Pacific Ocean and in other oceans of the world.

It is important for fishery vessels to have access. That is one of the major problems and one that Mr. Slatyer treated quite extensively. Boats have to be able to go wherever the tuna is, and since the tuna move from area to area, boats have to go wherever it is the most abundant.

A fourth and important problem but one that has never been treated in discussions about tuna and one that a couple of speakers have alluded to, particularly Jim Crutchfield yesterday in talking about common property resources, is the capitalization problem. We have a lot of tuna boats. We have far more tuna boats in the world than we need to harvest the available resource, but nobody has treated the problem of capitalization. The problem is a difficult one in an international fishery because the objectives of nations are quite different. The objective of Nation A may be to provide jobs, of Nation B to extract the maximum rent, but of Nation C to gain prestige from having an international tuna fleet just as many nations have international airlines.

All of these unique problems of fishing for tuna were recognized by the drafters of the Law of the Sea Convention, and a special article dealing with tuna was created, Article 64. Article 64 (1) says that tuna should be managed cooperatively. Article 64 (2) really puts that in some doubt because it refers back to all of the preceding articles that concern coastal states' rights with respect to jurisdiction over fisheries. In any event it is quite clear to me and to most people that tuna have to be managed internationally.

I would like to move on to comment briefly on a couple of the points that Tony Slatyer brought up. I think it would be presumptuous of me to stand up here and provide advice from this platform to western Pacific nations on how they should develop their tuna fisheries and how they should manage them. I would

like instead to make a few points that I think the nations should keep in mind as they go forward. First and foremost, I think that any effort in the western Pacific and likewise anywhere in the world to develop new tuna fisheries has to be carried forward with great caution. A number of nations around the world have attempted to develop tuna fleets from ground level in a very short period of time, and most of these have failed. We only have to look at the fleet development in Costa Rica or El Salvador, in New Caledonia, places where sizable investments have been put into the development of tuna fisheries but have not succeeded, probably because people moved ahead too quickly in trying to develop those fisheries.

To develop a fishery, certain criteria have to be met. Number one, you must have access to the resource. There has to be a resource base. The fact that tuna occur within 200 miles of the coastal state doesn't guarantee that the resource is going to be there all year long or over the next five or ten years. This is because of the nature of the tuna fish themselves. For example, in about 1960 Ecuador developed a very large fleet of small boats that fished tuna locally. These boats did very well until about 1971, when a major oceanographic occurrence changed the distribution and behavior of the fish and moved them beyond the range of those small vessels. As a result, vessels were inactive and economic loss was tremendous. The Ecuadorians have since reinvested money into new types of vessels, larger vessels, that go wherever the tuna are.

There must be adequate capital to develop a tuna fishery. Finding it is going to be a significant problem in the western Pacific, and it is probably going to require cooperation among groups of nations in developing their fisheries. There must be personnel to manage, maintain, and run the vessels. Finding these personnel is not always easy because tuna vessels are high-seas vessels and by nature spend a lot of time away from port. A nation planning to fish tuna must develop a tradition in high-seas fishing if it does not already exist. There must be an infrastructure for maintaining the vessels. A tuna vessel is capital intensive. It is like an airplane; it cannot afford to sit at the dock. It must turn over capital all the time. There must be a processing capability, either freezer capacities or canning, and there must be a market to get rid of the fish. For many nations around the world and many of the nations in the western Pacific, some of those things exist, some of them do not. Before large sums of capital are invested in tuna fisheries development, one needs to evaluate these six items.

In my opinion, and certainly this was alluded to in Tony Slatyer's paper, one good way to do this is through joint ventures, at least initially, to spread the risk. Let somebody else take a share of the risk and then transfer the technology and slowly develop the fishery that way.

The other point I wanted to mention is that, over the short term, benefits can be realized from coastal state adjacency to tuna resources through the sale of access permits to foreign flag vessels. Licensing problems for tuna vessels are somewhat

unique because when they go fishing they may fish in the coastal zones of two, three, or four nations in a single trip. For that vessel to buy a license from each of those nations is very uneconomical. Consequently tuna-fishing nations and some coastal nations have a great interest in licensing agreements that address this special problem. From my own personal experience, I think that the best way to approach this problem is through an international scheme where an international license is made available by the coastal states working jointly. Mr. Rosendahl referred to the San Jose Convention in the eastern Pacific which provides for an international licensing system. It is a licensing agreement to which a number of the Central American coastal states are party. The purpose of that particular convention is to make international licenses available. They are sold at a fixed rate determined by the high contracting parties to this convention. The revenues that are recognized or realized from the sale of these licenses are redistributed to the coastal states in proportion to the catches that are made in those coastal state zones. This particular licensing scheme is not yet in effect. It requires five ratifications. There are five signatories to the agreement but so far there are only two ratifications. It is anticipated that it will come into effect in 1985. This scheme can provide a format for developing similar licensing agreements in other areas.

In the western Pacific authorities must recognize and deal with some unique problems of licensing and access by tuna vessels to the coastal zone. For example, long-line vessels, as the name implies, put out a line about 70 miles long to which 2000 hooks are tied and fish generally for the larger sashimi, a lucrative market. The surface fishing vessels fish for many of the same species as longliners do but often catch them at a smaller size, thereby affecting recruitment to the long-line fishery. Unlimited surface fishing , if allowed, is going to affect the profitability of long-line fishing. Therefore the problem of maximizing license fees for different gear is going to have to be dealt with in the western Pacific. There is a long tradition of licensing long line vessels there.

Another problem that I think is important in the western Pacific is the effect of unlimited fishing on artisanal fishermen. Here I think of the situation in Satawal Island, in the Federated States of Micronesia. It is a very small island with very few people, and they have a cultural tradition of catching tuna on logs that drift into its coastal zone. They are concerned that unlimited fishing offshore by large commercial vessels is affecting the recruitment of tuna to those logs as they drift in. It really has nothing to do with the abundance of the resource but with interception. There are many instances like that concerning artisanal fisheries in the western Pacific, and I think they must be given serious consideration when licensing schemes are developed.

One other thing: tuna are completely pelagic animals throughout their lives; the dynamic processes of the ocean

affect their distribution and abundance. Unless we address ourselves to those problems we will not be able to provide the proper kind of advice on management and development to nations. Mr. Rosendahl mentioned that fishing in the eastern Pacific Ocean had declined there. Why did it decline there and why did it increase in the western Pacific? Many economic factors contributed to this situation, but one of the most important factors was an environmental one. We are all familiar with the strong El Nino that occurred in 1982 and 1983. That affected the thermocline topography in the eastern Pacific, allowing more space in which the tuna were distributed and thus making them less vulnerable to fishing. The fish did not leave the area, they are still in the area, but the boats left the area because they could not fish them. They went to the western Pacific because of the abundance of fish there. In the western Pacific we have not looked at the environment in as much detail, but the little data available shows the opposite effect, a shallowing of the thermocline, allowing less space for the tuna and thus making them more available for fishing. If one looks at the catch rates, fishing success, and relates it to thermocline topography in the eastern and western Pacific, one sees a very close relationship. A declining fishing success in 1982 and 1983 in the eastern Pacific was coupled with a deepening thermocline and increasing fishing success in the western Pacific in 1982 and 1983 with a shallowing thermocline. In 1984 the thermocline is back to normal in the eastern Pacific, fishing success is high, and boats are beginning to return from the west. In the western Pacific the thermocline is deep and fishing success has dropped off.

COMMENTARY

John Bardach
Resource Systems Institute
East-West Center

Mr. Chairman, ladies and gentlemen, as tail-end Charlie and a kind of old man of the sea, I will take some license and also suffer from having to say again what, luckily, others have already said before, particularly, Mr. Joseph and Jim Crutchfield yesterday. I will try to divide my time into a smaller and a larger part. The smaller part is: what might these papers have had in common -- not directly, but perhaps indirectly? First of all, it is clear that management of 200-mile economic zones, in a manner intended by those who tried to formulate the Law of the Sea Convention with regard to extended economic zones, is far more difficult than was anticipated. This clearly is related to the fact that we have made international common property resources into national common property resources, and we haven't really given proper thought to the problems this brings in its wake. Another general thought: the gross national product of South Pacific island nations and some others notwithstanding, by and large fisheries contribute little to the GNP because, compared to other commodities, little value is added as they go from water to table. In a nation such as Thailand, which is a very prominent fishing nation, it's only two or three percent. But the emotional content, aside from the nutritional content, of fisheries is very high indeed.

We have also referred several times to economics, market competition, etc. Economics and market competition have a particular bearing on tuna and its status in competition with other animal proteins. If you were to compare the price of a pound of chicken twenty years ago or even ten years ago with a pound of tuna, you would have found near equivalence. It is not surprising that it was called "chicken of the sea." Well, if you compare the price of a can of tuna today with the price of a pound of chicken, you'd find that the price of a pound of chicken has decreased greatly, relatively speaking, but the price of the pound of tuna has increased. It has done so *ceteris paribus* because fisheries are a primary industry that cannot bring to bear on its products all the effects and influences of genetics, nutritional sciences, etc. In other words, in broiler chicken production we are dealing with a biotechnology that can have certain advantages against a mechanical technology that is, in turn, hedged in by prohibitive and limiting management regulations applied to a common property resource.

To compete with the advantages of land-animal production, fisheries, especially with fuel being a large component in its costs, have to look to advances in technology. In the case of the South Pacific tuna fishery, we've heard some allusions to

advances in mechanical technologies of fishing -- for instance, smaller purse-seiners or possibilities of transferring catches at sea -- but there will have to be more. In the Gulf of Alaska, in contrast, the processing technologies, in the surimi component at least, have moved fish out of its very delicate competitive position with land-derived meats into a more advantageous one.

This means that the tuna industry, especially with its over-capitalization, will have to look very rapidly to certain advantages in new technologies in order to compete properly. But luckily the South Pacific and the Alaska industries have an advantage in common -- they are both in a less vulnerable position than the eastern Pacific industry. By that I mean there is room for expansion. Lee Alverson said that, even while the largest U.S. contribution to fisheries products comes from the Gulf of Alaska, perhaps 100 percent expansion might be possible; and it is assumed from such scientific knowledge as we have to date that at least skipjack stocks would be very amenable to substantial increases in catches. Thus we have a little time in these two fisheries in which to invent both new management paradigms and new technologies.

Now, let me turn to management issues. Mr. Joseph has said that tuna, because of their migratory biology, might have to be managed even where some expansion possibilities exist. With reference to their total range I could not agree more. But there are additional components to this problematique. Especially when you catch tuna with purse seines you can't be very selective, and the yellow fin population status and the skipjack situation are utterly different from one another, as is also the blue fin population status. So what one has to do, especially if one uses gear that is not or little selective, is not only to look at sub-stocks and their relations and at the effects of fishing heavily in one area on the fisheries in another but also to look at species interactions. Clearly, we have very incomplete information to do so, and only now nascent regional cooperation on some levels. Let me say, though, that what seemed to be a very, very difficult task in the South Pacific -- namely, the bringing together of a large number of small new nations to attend to their very best immediate interests -- has proceeded faster and better than we anticipated. We very often hear said, "Well, the ocean divides as well as connects," and "New nations have a great difficulty with their national sovereignties," etc.; but it appears that with the Forum Fisheries Agency and the trends we see in it, as well as the scientific efforts underway in Noumea, there is a good chance that we may have some of the information, within a reasonable time, to deal with tuna on a range-wide level and begin to take into account species competition and species balance.

It might be interesting to note when we compare Alaska with tuna fisheries that, in Alaska, we deal with few nations and a great many species. There we urgently need information on species interaction because it is clear that if we press heavily

on pollock, for instance, there will be effects on other groundfish. Jim Crutchfield said something yesterday about the difficulty for Alaska of time relations between formulating scientific advice and time constraints for inputs into management measures. Whereas in the South Pacific, and with tuna in general, we are dealing with many nations and relatively few species. Whether the difficulties of having people take concerted action can be overcome more quickly than the unraveling of complex ecologies, only time will tell.

To conclude: have the papers here presented given some indications on interactions among nations with unequal needs and endowments and for dealing with renewable vagrant living resources? I suppose "yes" in the sense that the Law of the Sea Convention has defined anew what ocean governance might and perhaps should be. Joint ventures have been very much favored and brought to the fore by extended economic zones and I think this is a good thing. But I think in the future we have to look at new modes of structuring joint ventures to satisfy national economics, international economics, and the need for food from the sea all in one. There has also been stressed again the need for regulatory and management paradigms to be taken on more than a national level. We have barely begun with this task and note that for now the LOS Convention gives us at least an initial framework to do these things. I hope that the Law of the Sea Institute among others will in the future continue to be a forum to discuss these matters. Thank you.

GORDON MUNRO: I call upon Alastair Couper.

ALASTAIR COUPER: I'd like to ask two small related questions of Mr. Slatyer. The first one deals with the technical policy in the Pacific Islands and the other with the surveillance policy.

The first one, relating to the appropriate level of technology, is something that has been touched on by several speakers. I recall the failure of a tuna fishing attempt in one group of Pacific Islands which was measured by the number of people who remained in the industry after they had been recruited -- Pacific Islanders who had been trained and then eventually disappeared after a few years working in the tuna industry related to joint ventures. There were very few still working on the ships some years later. Their disappearance seemed to relate to the social deprivation which they experienced during long periods at sea as well as to the nature of the work. The solutions which appeared to be around then were to redesign vessels, to improve the indigenous methods of fishing, to give local vessels the appropriate size and flexibility, and to reserve zones offshore specifically for these smaller vessels with their greater flexibility to range over tuna and other species.

The other point relates to Tony Slatyer's comment on surveillance. I think I'm less optimistic than he about the efficiency of licensing and agreements to curtail illegal fishing in the Pacific. There are two problems. One is the monitoring of quotas, the quantity and quality taken by licensed vessels. The second is the curtailing of non-licensed vessels in this vast sea area. As for the first problem, it is easier to monitor catches where the landings take place in the home area. It is much more difficult to do where they've been carried overseas. To the second problem, the policing of non-licensed vessels, there was a radical solution that the licensed vessels might be authorized to conduct the policing themselves since the capability of the islands to do this is pretty minimal. May I put these two questions to Mr. Slatyer?

ANTHONY SLATYER: Regarding the technology issue and the employment of Pacific islanders on fishing boats, it is a common objective to maximize employment opportunities for islanders on any vessels under the terms of some joint venture arrangements. Also, some South Pacific states have been successful in persuading foreign boat owners to employ their people on board outside of any agreement provisions. The complexity of the technology on some fishing vessels, such as large purse-seiners, is a very real problem. In national development strategies, some states have favored the use of pole-and-line bait boats which operate close to home. The fisherman can get out there with a rod and a line and do the same kind of fishing as he used to do out of a canoe, only with larger equipment. So, I think

the need to be wary of how complex we get is widely perceived. No one wants to discourage the island fishermen from adopting the new fishing methods.

On the surveillance question, I was not at all optimistic that the existence of licenses would be enough once management regimes such as quotas are implemented. In fact, I think I made it clear that it was only when licenses were freely available and did not contain catch limitations that we could feel fairly confident that foreign fishing vessel owners would buy them and would comply with them. Obviously, when the licenses start to contain restrictive conditions, we will have quite a different surveillance problem.

In the South Pacific there are few physical surveillance and enforcement resources, though in the next couple of years we are hoping to benefit from the gift of some patrol boats. Even those patrol boats are not going to be all that much use without aerial surveillance technology, and aerial surveillance is expensive. Our approach has been, first of all, to encourage the fishing state governments to accept a degree of responsibility for the behavior of their nationals in our waters, and the Japanese, Korean, and Taiwanese governments have been happy to do that. Of course, we have no way of checking to see whether those provisions are being faithfully adhered to, but it is better than having no provision at all. The other system we are promoting is the use of legal devices to enable the exercise of coastal state jurisdiction outside of the coastal state. Often we know that a vessel has done something wrong but have no way of catching it. We are slowly developing systems which will allow action to be taken in other countries within the South Pacific region. I am not aware of any other place in the world where these kinds of schemes are necessary. We are uniquely short on surveillance capability. In my view, however, the pen may end up being mightier than the sword and we will be able to exercise control in other ways than through physical apprehension. The only example of this that I can give you now is our Regional Register of Foreign Fishing Vessels, in which our member states have agreed that if any foreign vessel commits an offense or is thought to have committed an offense in any one of our member states' fishery zones and refuses to submit to the jurisdiction of that state for the purpose of proceedings being instituted or inquiries being made, then that vessel is refused access to the waters of all of our member states after a fairly lengthy due process procedure. The Regional Register was used once last year and was successful in encouraging the vessel owner concerned to submit to the jurisdiction of the state concerned. He paid up his license fees, which is all we ever wanted him to do, and he is now free to fish whereever he likes.

GORDON MUNRO: John Bardach.

JOHN BARDACH: Reference was made to surveillance by licensees. At the present time it seems rather difficult to imagine what

the consequence would be of a Japanese vessel telling on a Korean or Taiwanese or vice versa. In the first case, some action might be possible; in the other case it might be very, very difficult.

JAQUES GRINBERG: I'm from the Australian Embassy in Washington. It is clear that Article 64 of the Convention has not solved the question of tuna. The ambiguities between Articles 64 (1) and (2) have already been pointed out. However, as it's also been pointed out today, one of the changes which has been brought about by the UNCLOS process and the discussion of Article 64 is that at least a sizable number of states now consider that the formerly international common property of tuna in fact may be a national common property. I would venture to suggest that one consequence of this, the transition from international to national common property, is that national interests become more directly engaged. I'd further venture the suggestion that the degree to which national interests will be brought into play in the discussion of, for instance, tuna, will vary with the economic importance of that resource to those countries.

We've already heard about the central importance, both at present and potentially, of the tuna resource in the South and western Pacific. I therefore come to my question. Mr. Rosendahl earlier in the discussion this morning mentioned that one of the features of the U.S.-Mexico dispute over tuna was that it was managed purely as a bilateral issue and confined to a question of fish rather than of wider political ramifications or wider political questions. I would suggest that this may not be the case in the South and western Pacific. In the light of the recent events with the apprehension and confiscation of the Jeannette Diana, I would like to ask Mr. Slatyer whether he would comment on the wider political questions that are evidenced by that particular incident.

ANTHONY SLATYER: I am not sure how many people are aware of the incident that is referred to. An American tuna vessel was arrested in Solomon Islands' waters for fishing without a license. It was charged on that count and also with not stowing its gear properly, and it was prosecuted in the same manner that any other fishing vessel in those circumstances would have been prosecuted. The result was that the court found the charges proved and fined the owner and the captain of the boat on both counts. On the illegal fishing count, the court -- and I emphasize that it was the court and not the government -- forfeited the vessel to the Solomon Islands as the court was entitled to do under the Fisheries Act. As you know from the previous discussion, the U.S. government in those circumstances is required to take action under the Magnuson Act and has taken that action with the result that a significant proportion of Solomon Islands' tuna exports which had been directed towards Pago Pago and Puerto Rico has now to find another market. The American problem, and I'm sure both sides perceive it as a problem, is being addressed by the development of a fisheries

access agreement between states in the South Pacific and the United States so that there would no longer be such a thing as fishing for tuna without a license. The idea of a multilateral agreement of this kind has been bandied around for some time. A decision of the South Pacific Forum this year gave some impetus to that work and we have started talking with the United States. This incident has definitely stimulated a regional solidarity, I guess you could call it, as would any incident that so directly affects a member state of the Forum Fisheries Agency. I guess that if the matter cannot be resolved swiftly through the current processes, there might be some scope for other regional responses in the future, but I cannot even speculate on what they might be.

GORDON MUNRO: Roger Rosendahl with his long association with the U.S. tuna industry has asked if he might make a brief comment or response to the question.

ROGER ROSENDAHL: Mr. Grinberg is the second person today to ask me about my comment that the U.S. problem with Mexico could be confined to fisheries, and I want to clarify that statement. A Norwegian lady asked me during the break whether there is anything inherent in the fisheries industry that might make it a confinable issue, and my answer is distinctly, "No." In fact, as others have pointed out, the situation is frequently to the contrary, especially where fisheries tend to be a highly emotional issue. The reason that the fisheries issue may be confined in the instance of Mexico and the U.S. is that there are many other more major issues which face us, such that fisheries is fairly low on the overall priority list. I have also had a fair amount of dealings in Papua New Guinea, and I can tell you by way of contrast that the situation would be quite different there; in terms of U.S. relations with that country, fisheries is a much higher priority. I can see how it would be more difficult in the South Pacific to confine this issue as we hope we have done in Mexico.

GORDON MUNRO: Lee Alverson.

LEE ALVERSON: I have only a very short comment. Lee and others referred to the importance of the management component, particularly as it acts as a brake. Lee spoke of the importance of providing an economic dimension that would control limited entry and suggested very strongly that this be done right the first time, and I think both Dr. Crutchfield and I would certainly endorse these comments. But I would like to point out a frailty, I think, of our current position. If I had to forecast what will happen in Alaska, I don't think we'll do it right, and I don't think we'll do it in time, the first time. We'll ignore history, and I think there's a very basic reason why that will happen. The concept of limited entry and its strategies and importance in terms of achieving certain economic goals are well understood at the intellectual and academic level

in forums like this. But I think what we frequently forget is that the people who evolve fisheries policy at a council level or at a national level are very seldom members of a group like this. They come from the user groups themselves who form a large politically reactive party, the recreational and the commercial groups, and they march to a different drum. And we have not done a very effective job in communicating to that group at that level that there are major benefits from taking those steps now. And I think that's our real challenge, because those people are the ones that will control that process.

GORDON MUNRO: Nat Bingham.

NAT BINGHAM: I represent the Pacific Coast Federation of Fishermen's Associations. Mostly we represent small-boat fishermen here on the West Coast in California. I've been very interested over the past few days to hear the themes of common property, limited entry, and management of resources weave their way in and out of our discussions. I would like, just in passing, in phrasing my comment, to mention that the California fishermen have in fact put a limited entry scheme together and passed it into law here and have begun to take cognizance of that problem and to deal with it at their own level. We also have recently lost or are going to lose our market for albacore here on the West Coast because of some of the economic forces that have been touched on this morning in some of the discussions. My question is simply this: Is it worthwhile under the common heritage of mankind doctrine to take into consideration cultural values as well as pure bio-economic ones in trying to design our management strategies? Is it worthwhile to protect some of the artisanal fisheries or are we going to go strictly into large-scale agency governmental and economic ventures and let the small fisherman go the way of the small farmer?

GORDON MUNRO: Any members of the panel willing to take that on?

LEE ANDERSON: Very briefly, I think the answer is "Yes," and Jim Crutchfield said that yesterday. The only problem is that you have to watch out for God, motherhood, and apple-pie objectives. Though some protection of artisanal fisheries (assuming you can define artisanal) is good, a lot more is not necessarily better. We have to be careful about the trade-offs. We should know what we're paying in terms of lost industrial development and what we're actually getting in return. I personally don't think we should completely protect these fisheries at the cost of lost efficiency and lost biological productiveness. I do think, however, that they are an important issue and that we have to directly face the problems they pose.

GORDON MUNRO: I would like to ask all of you to join me in thanking all six of our speakers for excellent presentations.

LUNCHEON SPEECH

INTRODUCTORY REMARKS

Robert B. Krueger
Finley, Kumble, Wagner, Heine,
Underberg, Manley & Casey

Our luncheon speaker today is Dr. Anthony Calio, who is the Deputy Administrator of NOAA, National Oceanic and Atmospheric Administration. He is the chief operating officer of NOAA, which as many of you know is an agency of some fourteen thousand employees. Dr. Calio provides policy guidance and determines technical program content and the budgets for the agency's programs which deal, as all of this audience knows, with the whole spectrum of oceanographic, oceanic and atmospheric programs. Before joining NOAA, Dr. Calio was the Acting Deputy Administrator of NASA, where he had full management responsibility for all programs through the first space shuttle flight. He is a fellow of the American Institute of Aeronautics and Astronautics, the American Astronautical Society, and is a member of the New York Academy of Science and the American Geophysical Union. It is a pleasure to have Dr. Calio with us today.

A CONSCIENTIOUS MANAGEMENT OF THE FUTURE
(THE ADMINISTRATION'S POSITION ON OCEAN POLICY AND LAW)

Anthony J. Calio
Deputy Administrator
National Oceanic and Atmospheric Administration

Over the past three days, you have been given an historic glimpse of the ongoing evolution of ocean policy and ocean law. It is an issue which is multifaceted, diverse, and complex and which has no easy answers. It involves virtually every nation on the globe. It involves also a vast geography, covering nearly 70 percent of the planet on which we all live.

Small wonder that it is an issue which has provoked emotional and, at times, heated debate. Unfortunately, what has emerged from that debate is a flawed convention which the United States cannot in good conscience sign.

There are some good and critical reasons for this decision. While they are well-known, they deserve repeating because they are the basis for a reasonable ocean policy -- one which would allow for this country's conscientious management of its future.

This is particularly true in the area of seabed mining. It is no secret that the U.S. decision to refuse to sign the Law of the Sea Convention centers on the imperfect deep seabed mining regime which the Convention contains, and the effect that regime could have on options and developments in years ahead.

In our view, the regime included five irreconcilable problems. We felt that the provisions of the regime would:

* deter future development of deep seabed mineral resources at a time when such development is in the interest of all countries;
* institute a decision-making process which would deny the United States and others a role that fairly reflects and protects legitimate interests;
* allow a system of binding future amendments which ignores U.S. constitutional responsibilities;
* require technology transfer without just compensation, allowing national liberation movements to share in the benefits of such transfer; and
* fail to assure access for future qualified deep seabed miners to promote the development of these resources.

Each of these problems by itself merits the decision made by the Reagan Administration not to sign the Convention as adopted by the Law of the Sea Conference. Let me explain.

Problem Number One: The proposed regime would deter future development of deep seabed mineral resources at a time when such development is in the interest of all countries.

As structured, the United Nations Law of the Sea Treaty would act as a hindrance to the timely economic development of strategic minerals. There are keen limitations imposed by the

treaty on companies or consortia wanting to mine the rich metallic ores of the deep sea floor.

The problem here is twofold. In the first place, the Law of the Sea Treaty seeks to regulate quite severely the mining of manganese nodules. These nodules have long been assumed to be a future source of industrial metals. However, the proposed regime -- replete as it is with unacceptable mining constraints -- would limit severely the profit which could be made from harvesting these nodules.

On the other hand, the development of newly discovered sources of polymetallic sulphides which are rich in industrial ores is also in jeopardy because of the proposed convention. The first discovery of polymetallic sulphides occurred in 1978, a full four years after the United Nations Conference on the Law of the Sea began. However, the Convention text contains no explicit wording regarding the development of these deposits. We are concerned that the exploration for and the extraction of these rich resources could be put on hold indefinitely under the terms of the treaty.

What is at stake, in either case, are valuable stocks of manganese, nickel, cobalt and copper. Since the first discovery of mineralized zones in the ocean depths, new sites have been found with nodules containing iron, zinc, silver and tin, with trace amounts of gold and platinum.

All of these elements play an important role in industrial growth and development. Given the interdependent nature of the world in which we live, any effort to stymie the development of deep seabed mineral resources could have an adverse impact on our collective future. The recovery of these resources will demand new mining and processing techniques -- many of which have yet to be commercially developed. To date, ocean mining remains a risky and high cost venture requiring a capital outlay of $1.5 to $1.8 billion per site. Pilot programs and prototype development alone carry a $300 million price tag. Such outlays by the private sector are not likely under the terms of the treaty, since both the price of ore as well as supply channels from land-based mines can be manipulated. In effect, the treaty could foster several mineral cartels dominated by countries already rich in strategic or industrially essential minerals. These cartels would wreak havoc with normal competitive factors.

We believe that the new regime proposed by the treaty to govern seabed mining could also hold the development of resource sites hostage to the designs of an unelected International Seabed Authority. That Authority would be empowered to approve mining ventures, issue licenses, validate claims, set production limits, and distribute profits among signatory nations. We have determined that under these conditions, those who invest capital and technological know-how in seabed mining are unlikely to reap the benefits of their effort.

This clearly does not augur well for the future development of valuable ocean mineral sites. And given these circumstances, it is not in our best interest to become a signator to the Convention.

Problem Number Two: The treaty would institute a decision-making process which would deny the United States and others a role that fairly reflects and protects legitimate interests.

In the first place, the treaty provisions create a system of privileges for developing countries that are not simultaneously granted to private and national miners representing many of the industrial nations. The treaty does not allow a proportionate voice to the countries likely to make the largest investment in deep sea minerals exploration and mining. As was pointed out in President Reagan's statement of 9 July 1982 the countries voting "no" or abstaining from the adoption of the Law of the Sea Convention represent more than 60 percent of the world's gross national product. These nations include most of the countries who have, or are likely to develop, seabed mining technology. Yet, it is these very nations who, under the terms of the treaty, would be least likely to have an effective voice in the process which would determine the binding regulations affecting seabed mining.

We contend that the one nation, one vote rule for governing the International Seabed Authority does not reflect fairly the actual economic power and interests of the United States. The decision-making system of the seabed mining regime should provide that, on issues of highest importance to a nation, that nation will have affirmative influence on the outcome. Conversely, nations with major economic interests should be secure in the knowledge that they can prevent decisions adverse to their interests. Although we made specific proposals on this point, and although we repeatedly compromised on this issue, the terms of seabed mining regime place our vital interests in jeopardy.

We are concerned, too, that the treaty would impose burdensome financial requirements on U.S. mining operations on the high seas. The Resolution on Preparatory Investment Protection would require a pioneer investor -- such as one of our existing U.S. mining companies -- to assume heavy financial obligations in addition to those contained in the Convention. The financial obligations themselves are onerous indeed. They include a payment of $250,000 upon registration with the Preparatory Commission and an annual fee of $1 million upon approval of a plan of work. In addition, the investors would have to pay another $250,000 for processing a plan of work, as well as pay expenditures to meet diligence requirements which have not yet even been established.

As I noted earlier, the Convention would artificially limit deep seabed mineral production. And the treaty would permit discretionary decisions by the International Seabed Authority if there is competition for limited production allocations.

This combination of financial requirements and an almost total lack of meaningful control over the project being financed is unacceptable. If nothing else, it fails to meet the minimum leverage reasonably expected by risk capital investors. Again, given such circumstances, it is not in our best interests to become a signator to the Convention.

Problem Number Three: The treaty allows a system of binding future amendments which ignores U.S. constitutional responsibilities.

Under the terms of the treaty, a review conference may adopt amendments to the deep seabed mining regime after five years of negotiations. These amendments could automatically come into force for the United States upon approval by three-fourths of the states' parties. This process runs contrary to our country's constitutionally mandated treaty procedures. Under no circumstances could the United States allow other nations to bypass our approval -- including congressional advice and consent -- regarding international treaties, especially when those treaties seriously threaten our future security.

Despite our legitimate concerns and protests at this point, the developing countries insisted on keeping intact the future review procedures for adopting amendments. We found their intransigence on this issue incompatible with our interests for another reason as well. We felt that the amendment process could jeopardize substantial investments already made in deep seabed mining by holding out an either/or choice to companies and countries -- that is, either accept an amendment at some future date or be forced to withdraw from and denounce the entire Law of the Sea Convention. This is hardly an acceptable choice. And given such circumstances, it is not in our best interests to become a signator to the Convention.

Problem Number Four: The treaty requires technology transfer without just compensation, allowing at the same time national liberation movements to share in the benefits of such transfer.

Protecting private technology remains a major concern of the United States, especially when the technology is deemed sensitive and defense-related. Yet, the provisions of the treaty mandate that a company or consortium agree to sell its technology to the International Seabed Authority or to anyone the authority might designate. The price of the technology would be determined through negotiations between the Authority and the company seeking a permit to mine. This would give the Authority undue leverage in the negotiations -- another unfortunate example of the either/or considerations which abound in the treaty. In this case, the dictum is either sell at our price or be refused the permit.

Two other important issues hold here, as well. First, any technology whose transfer is prohibited by domestic law -- but which might be critical to successful mining operations -- would be barred from use (and, therefore, from the required "sale") in private mining under the treaty. This provision could force a shutdown of exploratory or extracting operations with an attendant substantial loss of risk capital already invested. On the other hand, any mandated technology transfer might ultimately benefit movements of national liberation, such as the Palestine Liberation Organization, whose avowed policy of terrorism is repugnant to us. The benefits could accrue either by making available the technology itself or through profits

distributed by the Authority to countries whose aim it is to threaten and upset political and economic security throughout the world. Under these circumstances, too, it is not in our best interests to become a signator to the Convention.

Problem Number Five: The treaty fails to assure access for future deep seabed miners to promote the development of these resources.

The sum total of the privileges and advantages granted to the mining arm of the International Seabed Authority makes it improbable that private ventures could compete in the future development of deep seabed resources. The virtual monopoly which the treaty guarantees to the Authority would preclude other deep seabed exploration and mining activity.

The treaty fails to state clearly that companies meeting objective standards would be guaranteed a license to mine. The underlying fear is that some companies or an entire private consortia venture might be excluded or constrained simply because they or their sponsoring nation happen to be in disfavor with Authority members. There is no way to prevent this type of action under the terms of the treaty. Nor is there any reasonable way to seek redress for such activity given the substantive powers of the Authority.

Let me repeat one more time: Given these circumstances, it is not in our best interests to become a signator to the Convention.

The fact that the United States has chosen not to sign the Law of the Sea Convention for the reasons cited does not tie our hands with regard to a workable future. On the contrary, the decision provides the United States with an opportunity to evaluate its oceans policies. As one news source put it, "The possibility of a treaty has hung over five U.S. Presidents and made it virtually impossible for them to look at the oceans realistically." The commentary went on to read that "when the U.S. said "no" to the treaty, it represented a new beginning for the cause of U.S. ocean policy ..." and that "the President could announce a long, overdue, sweeping review of U.S. ocean policy."

In a way, that is what has happened. In his 10 March 1983 statement, President Reagan announced three important decisions aimed at promoting and protecting the oceanic interests of the United States "in a manner consistent with those fair and balanced results in the convention and international law." In this way, the President embraced those extensive parts of the treaty dealing with navigation and overflight, as well as those other provisions of the Convention which are consistent with U.S. interests, and which indeed serve well the interests of all nations.

Much has been said about that part of President Reagan's statement proclaiming an exclusive economic zone in which the United States will exercise sovereign rights over living and nonliving resources with 200 nautical miles of its coast. But very little attention, it seems to me, has been given to the quiet and telling assertion that the Law of the Sea Convention

"... contains provisions with respect to traditional use of the oceans which generally confirm existing maritime law and practice and fairly balance the interests of all states."

This is informative and important.

To a considerable degree, the President's statement asserts forthrightly and correctly that certain rights embodied in the Law of the Sea Convention are considered customary international usage. As such, treaty rights involving navigation, jurisdiction over the continental shelf, fisheries, pollution control, the conduct of marine scientific research and exclusive economic zones should, in effect, be shared by all nations. Certainly, the United States will exercise and assert its rights in these areas. The proclamation regarding the jurisdiction of the United States over its exclusive economic zone attests to this fact. This should neither surprise nor confuse those critics who argue that our decision not to sign the Law of the Sea Convention places us in a position of "lamentable isolation" and abrogated any and all rights we might have had by adopting the treaty.

Again, the contrary is true. With the Proclamation, the United States became one of 59 nations that have declared some form of exclusive economic zone since 1951. The concept is now generally accepted as an established part of international law whether or not the Law of the Sea Treaty is widely adopted. Furthermore, the President's Proclamation is fundamentally in accord with the provisions of the Convention. This is a significant step forward in U.S. oceans policy, if for no other reason than the sheer size of the area it embraces. The exclusive economic zone encompasses some 3.9 billion acres -- an area far greater than the 2.3 billion land acres of the United States and its territories. The importance of assuming economic jurisdiction over this area dramatically illustrates the point that the United States will have much to say about the conduct of nations on the high seas -- especially in its own jurisdictional area -- in the years to come.

We are not prepared, nor are we willing, to concede that signing the Law of the Sea Convention was the only way to go. We believe that the President's Proclamation is consistent with existing legislation which has been guiding our offshore activities and provides also the policy framework for the development of new interests of benefit to the United States. This framework is essential.

The Law of the Sea Convention which has been signed by 130 nations has obtained only 13 of the 60 ratifications required to bring it into force. It has been 22 months since the Convention was opened for signature. And although there is a reasonable probability that 60 nations might in time ratify the document, it is possible that the Convention might never enter into force. It is also distinctly possible that even if the Convention is ratified, a significant number of important states will join the United States in not ratifying the treaty. However, regardless of the ultimate fate of the Law of the Sea Treaty, it is imperative that the United States -- whose maritime interests

are surpassed by no other nation -- be prepared to assure its future in the use of the ocean. As one American diplomat told the Congress back in 1978, "... We have the means at our disposal to protect our ocean interests ... and we will protect those interests if a comprehensive treaty eludes us."

We sincerely wish to avoid unilateral decisions that would invite others to follow suit. It is, therefore, important that the United States take no action within our exclusive economic zone that would provoke reprisals by others affecting U.S. maritime mobility in their zones. We are committed to exercising our jurisdiction in a manner consistent with the non-deep seabed provisions of the Law of the Sea Convention. And we will work to discourage actions by other nations which are inappropriate or inconsistent with the non-deep seabed provisions of the treaty. All this notwithstanding, an evolving U.S. oceans policy will forge ahead and seek to develop with other countries a regime -- free of unnecessary political and economic restraints -- for mining deep seabed minerals beyond national jurisdiction. As President Reagan has said, "Deep seabed mining remains a lawful exercise of the freedom of the high seas open to all nations. The United States will continue to allow its firms to explore for and, when the market permits, exploit these resources."

It is unlikely that commercial mining of the ocean depths beyond the 200-mile exclusive economic zone will begin before the last decade of this century. In fact, the activities of those companies pursuing commercial deep seabed mining have been limited due to economic developments in the metals market. Nonetheless, this apparent lack of activity does not obviate the need to develop alternatives that would permit American companies to engage in mining the mineral riches of the ocean floor when the metals market recovers. Accordingly, the United States during the past few years has kept a door open for a dialogue with other seabed mining nations that would provide for mutual recognition of mining licenses granted in this country and other countries.

The Deep Seabed Hard Minerals Resource Act of 1980 requires the United States to seek reciprocating agreements with other nations that have their own deep sea mining operations. That effort has resulted in the United States concluding agreements with the Federal Republic of Germany, the United Kingdom, Italy, France, Japan, Belgium and the Netherlands. The first agreement of 2 September 1982, led to a successful resolution of overlapping claims. The continuing negotiations which followed this agreement led to the conclusion of the Provisional Understanding Regarding Deep Seabed Matters of 3 August 1984. The Provisional Understanding constitutes an agreement among those states possessing the most sophisticated technology and who have invested the most capital in behalf of the future of deep seabed mining. The Understanding provides for the avoidance of conflicts over mine sites and for regular consultations on various aspects of deep seabed mining.

The economics involved in deep seabed mining underscore the need for such agreements and understanding. Based on one official estimate of three representative seafloor areas -- each 18,000 square kilometers in size and each containing large amounts of manganese nodules with smaller percentages of nickel, copper and cobalt -- the market value for the recoverable minerals in each area is in the neighborhood of $16 billion. The accuracy of these estimates depends, in part, on the effectiveness of the state of the art technology when actual mining commences. The more sophisticated -- but workable -- the technology is, the greater the likelihood of profitable return. Still, with the dollar figures being contemplated, it is no small wonder that nations interested in developing the ocean minerals are willing to negotiate agreements among themselves. And under customary international law, they have every right to do so.

Deep sea mining was still a hypothetical activity when the Law of the Sea Convention deliberations began in 1973. No one has even begun to engage in this activity on a commercial scale and certainly not within the parameters most often mentioned. Mining ships, 1,000 miles from land, will be extracting minerals at a depth of 15,000 feet of open ocean. The techniques involved in such an operation are still being developed and perfected. As I said earlier, commercial deep sea mining might be a decade away.

In the meantime, the United States has taken steps to ensure that when this type of commercial mining begins it will have a voice in who does it, and how and where it will be done. The current Administration will not tolerate anything less. We are aware that there are those who might think that we have sacrificed good faith for no apparent or for selfish reasons. In reality, we have only sought to maintain a workable future based on competition rather than bureaucracy -- a competition based on true enterprise rather than the whims of other countries' ideologies. The demands of other nations that they are entitled by philosophical fiat to share in the wealth of the oceans ignores the reality of an enterprise involving labor, capital and technology. Those who are engaged in the harvest of these riches will share in the benefits. And the contribution of those involved must include more than mere piety of statement.

It is unsettling, too, to find nations whose verbal claim to a sharing of this wealth becomes part of a syllogism suggesting that the wealth be distributed to and shared with countries supporting radical ideologies inconsistent with the freedoms on which our nation was founded. Do not misunderstand me. We are not against sharing the profits made from the development and exploitation of those resources. But at the moment, the title to these resources is uncertain, given the absence of a treaty in which we are denied a proportionate voice in the decision concerning those resources. We fail to see where the one nation, one vote rule should apply when in reality the successful development of ocean based minerals depends on technology and risk.

We believe -- as we always have -- that our investment (technological and financial) and our commitment to risk and entrepreneurial challenges merit more that just an opportunity to pander to governments and countries that refuse to compromise their principles, but who feel no compunction in demanding that we abandon ours. To those critics who have suggested that our refusal to sign the Law of the Sea Treaty is tantamount to ensuring a major disappointment for the future of the United States, let me say that they underestimate the resolve of our private enterprise spirit and they understand little about our existing technological abilities.

We mean no one any harm. But we will not be hoodwinked into handing out riches on a silver platter to those countries who would use their new found wealth to precipitate conflict in an uneasy world. We will not barter our future for a sow's ear. Those days are gone.

We will, instead, insist on managing our future, particularly in the area of oceans policy. We will do so in a conscientious way.

PART VIII

SPECIAL SYMPOSIUM:
THE 1982 CONVENTION:
WHAT DOES IT HAVE TO DO WITH MARITIME TRADE?

INTRODUCTORY REMARKS

Jack Garvey
School of Law
University of San Francisco

I am Jack Garvey, Professor from the School of Law at the University of San Francisco, one of the hosts of this conference. I'm going to begin by telling you a little about the reason we created this symposium and the original inspiration for it. It grows out of a remarkable observation which is that, notwithstanding the portentous descriptions of the Law of the Sea Treaty which we've all heard, descriptions such as "the most extensive negotiations in history," and "most significant negotiations having to do with 71 percent of the earth's surface covered by water," there has been little articulation of the relationship to those who are by definition pre-eminently concerned with the part of the earth's surface covered by water, the members of the maritime trade. And this is especially notable given that the Law of the Sea Treaty grew out of the felt need to reconcile the increasingly ambitious regulatory and other assertions of coastal states with the navigational interests of the maritime powers. This need remains the heart of the matter for the maritime trade. So today what we will do is to try to address this central concern and at least begin to analyze the impact of the Law of the Sea Convention on maritime interests.

We're going to begin with a talk by Professor William T. Burke from the School of Law, University of Washington. For those of you who are familiar with the literature in this area, I'm sure I need not say anymore by way of introduction.

Our second speaker is Rear Admiral Bruce Harlow, the Assistant Judge Advocate General of the Navy. He was formerly the Department of Defense and Joint Chiefs of Staff representative for Ocean Policy Affairs and Vice Chairman of the U.S. delegation to the UNCLOS III.

Our third speaker is Norman Letalik, an Assistant Professor of Law at Dalhousie University and a Research Associate in the Dalhousie Oceans Studies Program.

Then we're going to hear from David Larson, who is a Professor in the Department of Political Science at the University of New Hampshire, and from Gordon Becker, who is presently Of Counsel to the New York firm of Kirlin, Campbell and Keating. Mr. Becker was formerly a member of the Legal Counsel's staff at Exxon and was a Chairman of the Exxon Oceans Committee. He's also a member of the Executive Board of the Law of the Sea Institute. Professor Larson and Mr. Becker will alternately address questions to each of the prior speakers.

Our last speaker is Mr. Carl Blom, a representative from the business community that is indeed affected by what we're discussing today. We want to know his perceptions and whether all he's heard here makes him feel nervous.

CHANGES MADE IN THE RULES OF NAVIGATION AND MARITIME TRADE BY THE 1982 CONVENTION ON THE LAW OF THE SEA

William T. Burke
School of Law
University of Washington

INTRODUCTION

This paper concerns some provisions of the 1982 Convention on the Law of the Sea (hereinafter CLOS) relating to state actions that could have an impact on the movement of vessels. The focus is upon treaty provisions that are either modifications of established law or completely new. Reference to customary international law will also be made where relevant and useful.

Concern for continued efficiency and safety in the movement of vessels and aircraft, both civilian and military, was probably the major interest at stake from the point of view of the United States, and of other maritime powers, in the process of renegotiating the international law of the sea [1]. Military concerns were foremost in the minds of those in the United States who in the late 1960s and early 1970s were responsible for formulating policy regarding the LOS negotiations [2]. Their principal worries at the time were the continued expansion of national territorial limits in the ocean and the extension to such enlarged areas of traditional international law authorizing coastal states to regulate vessel and aircraft movements in the territorial sea, including straits. As all will recall, it was the U.S. position then that only a three-mile territorial sea could be imposed on other nations by a coastal state and this meant that all ocean waters beyond that limit were high seas over which coastal states had no authority to interfere with the passage of vessels and aircraft.

Accordingly, the negotiating objective of the United States, and I believe of other maritime powers, was to secure agreement upon specific limits on national jurisdiction in the ocean and on substantive and jurisdictional principles which would safeguard navigation from interference by a coastal state. Although in the initial stages this goal was focussed upon the territorial sea and straits, it was also sought in negotiations involving all the zones of authority that came into issue. Navigation issues in the EEZ were thus also of particular concern to the U.S. and others.

As a general proposition, the 1982 treaty substantially meets the objectives just summarized [3]. The purpose of this discussion is to identify problems that may still cause difficulties for flag states under the CLOS and to comment upon the uncertainties that now arise because the United States has not signed the treaty and will not ratify it unless some Administration adopts a more favorable policy.

The range of provisions in the treaty that might impact upon the movement of vessels is considerable. They include those dealing with the nationality of vessels, entry into port, passage through the territorial sea, passage through straits, passage through archipelagic waters, and transit of the exclusive economic zone. More specifically the provisions of interest are those concerning requirement of a genuine link in the registration of ships [4], the new formulation of the concept of innocent passage [5], the provisions on transit passage and archipelagic sea lanes passage [6], the provision for sovereign rights for resource purposes in the exclusive economic zone [7], the provisions on jurisdiction in the EEZ for protection and preservation of the marine environment [8], and the relationship of these latter two sets of provisions. Obviously it is not possible to canvass all of this in a few minutes, hence most of the following discussion centers upon the EEZ provisions, but some preliminary reference is made to other issues.

NATIONALITY OF SHIPS

The 1958 Convention on the High Seas and the 1982 Convention both state that there must be a genuine link between the state of registration and the ships it registers. Neither provides a definition of genuine link, although the former implied the requirement of conditions permitting the flag state to exercise effective jurisdiction and control over the administrative, technical, and social matters of the ship. The new Convention no longer suggests a direct relationship between the genuine link concept and effective jurisdiction and control, but Art 94(6) does provide for a means of complaining if a flag state appears not to exercise the proper jurisdiction and control.

The absence of a definition of genuine link still suggests that flag states may exercise discretion in registering vessels and that other states cannot challenge the absence of a genuine link. Although the independent requirement of effective jurisdiction and control for certain specified purposes might provide some limitations on the exercise of that discretion, the Convention provides no effective sanction for failure to exercise jurisdiction and control. Article 94(6) simply requires a flag state to whom a complaint is made regarding failure to exercise proper jurisdiction and control to "investigate the matter and, if appropriate, take any action necessary to remedy the situation."

It does not seem to me very likely that the CLOS provisions on nationality of ships pose any imminent threat to vessel movement or operation at sea or to the system of order built upon the concept of nationality. The 1958 Convention requirement of a genuine link has had no effect whatsoever in deterring use of flags of convenience nor to my knowledge has it had any effect upon the operation of vessels operating under such flags. Indeed since 1958 the proportion of the world

merchant fleet operating under flags of convenience has increased to about one-third, suggesting the ineffectiveness of that treaty on the practice of registration under such flag [9]. If flags of convenience continue to be used, and states feel benefitted by the notion of open registry, it is unlikely that the concept of genuine link is perceived to be a significant hindrance to ship movement.

The question of nationality of ships is now being addressed in a separate international conference and it remains to be seen whether nations acting separately can both establish an agreed concept of genuine link and a sanction that will assure its recognition in practice [10].

TERRITORIAL SEA

Apart from straits, the major innovation in the CLOS regarding the territorial sea is the attempt to establish an objective concept of innocent passage. The discretion accorded to the coastal state under the 1958 Convention would have permitted that state to characterize passage as offensive or prejudicial to coastal state interests on grounds that need have nothing to do with actual occurrences in the territorial sea other than the mere presence of the vessel. There was no requirement under the 1958 Convention that a coastal state base its determination about the character of passage upon the behavior of the vessel itself during passage, hence it might claim authority to consider the vessel's cargo, previous behavior, or some other factor persuasive to it that the vessel was prejudicial to the coastal state. Although this interpretation of the Convention was never tested, such a subjective interpretation seemed plausible and a basis for concern.

The 1982 Convention seeks to remedy this difficulty by specifying vessel actions as grounds for determining that a vessel is not in innocent passage. The list of these events does in major degree provide assurance that a vessel will not be surprised by a coastal state determination that it is not in innocent passage. Article 19, however, does leave a small loophole for a creative coastal state official because it includes a catch-all category of events in the clause "any other activity not having a direct bearing on passage." Whatever this might be interpreted to include, it needs emphasis that the coastal state's characterization under this category must still be tied to an "activity" during passage.

The reason for mentioning this subject at all in the present forum is that in the Mayaguez incident there were claims by seamen against shipowners for alleged harms suffered, alledgedly due to the owner's negligence, when Cambodia chose to seize and detain the ship while in passage through the territorial sea [11]. A defense in the circumstances would have been to establish that the vessel was in innocent passage and this should also establish that the shipowner had no responsibility for the seizure, detention, or any resulting

harms. This case was, I believe, settled and there was no decision on the specific issue of innocent passage. Incidents of this type are not frequent and I would not anticipate any change in that regard. Should this recur, however, it would appear to me now to be somewhat easier to establish that the vessel should have been regarded as in innocent passage, at least if the Convention is considered the applicable law.

To pass to another question about innocent passage, the Convention seems to me clearly to include military vessels among those entitled to exercise that right. However, it needs to be noted that there were and are a significant number of states who either do not believe warships should have the right or currently provide to the contrary in their national legislation. Should the treaty come into force, the latter group would certainly be required to alter that legislation to provide that military vessels of treaty parties may enjoy the right of innocent passage. Whether the right is recognized by customary law is another matter, and it seems likely that some coastal states will insist that it is not. This is precisely the kind of problem the treaty was supposed to avoid, but the failure of the U.S. to ratify the treaty may assure that the U.S. will continue to bear the burden of uncertainty in this respect [12].

STRAITS

The LOS provisions on straits contain provisions that, if applicable, go a long way toward insulating passing traffic from any form of coastal state authority. Some observers have raised questions about the scope of the straits provisions, contending that they do not offer adequate assurance for transit of submarines and military vessels [13]. Not many agree with this view, and such reservations are very uncommon among participants in the negotiations. There appears to be an overwhelming consensus that transit passage provisions offer satisfactory assurance to vessels seeking unimpeded access to or over a strait [14].

From a U.S. perspective, the problem with the treaty and straits is the weakness of the American argument that the treaty now expresses customary law on which it is safe to rely for assurance of secure navigational routes in straits. And the root of that weakness is the testimony of American officials during or preceding the negotiations that a different transit regime was needed for a territorial sea wider than the three miles the U.S. had traditionally recognized [15]. It was implicit in this that the normal regime for straits, nonsuspendable innocent passage as found in the 1958 Geneva Convention, was not adequate. Accordingly it can hardly be surprising that the Reagan Administration's sudden discovery that transit passage was customary law all along may not find many takers [16].

It does not follow from these remarks that movement of vessels through straits is going to be attended by frequent interruptions or serious obstacles. However, I think it does

follow that there cannot be easy certainty that any particular instance of transit in times of crisis will be smooth and noncontroversial. Moreover, I suspect that from time to time there may be need for some special arrangements or concessions to particular states in order to assure that vessel movements proceed as desired and without political difficulties. A major purpose of the LOS negotiations was to avoid uncertainty, escape the associated political difficulties and unwanted tensions, and obviate any need for special agreements or arrangements. It would be foolish indeed to rely on the insubtantial foundation of customary law to demonstrate that these problems will not arise.

ARCHIPELAGIC WATERS

The issue of archipelagic sea lanes passage does not seem to me to be the same as that of transit passage. The reason is that the archipelagic regime itself is the creation of the CLOS and if that regime were not recognized there would be no requirement for a special right of archipelagic sea lanes passage. It can hardly be argued persuasively that the concept of archipelagic waters was a matter of customary law prior to the Convention's adoption. Nor can it be argued, at least yet, that the Convention itself creates customary law regarding archipelagic states and waters.

On the other hand, if the archipelagic states claim that status and are willing to recognize the obligations concerning passage, all entirely apart from the treaty, then nonparty states ought to be able to avail themselves of the rights that are part of the archipelagic regime although they do not otherwise accept the treaty. Thus if, apart from the LOS treaty, the United States recognizes the archipelagic status of Indonesia, which the latter claims for itself, then the latter must give to the United States the benefit of the rights of passage. It does not seem to be very appealing or acceptable symmetry to allow the archipelagic state, before the treaty comes into force, to take advantage of a consensus developed through the treaty approach, and at the same time reject the necessarily related claims of nonparties because they don't accept other and different parts of the treaty.

In any event it seems to me that everybody is better off if the archipelagic arrangement, including rights of passage through and over the archipelago, is generally accepted, irrespective of the fate of the treaty. I suspect there is a very good chance that the archipelagic regime will be recognized as customary law before too many years pass, including the criteria for recognition of the archipelagic state, if navigation rights as provided in the treaty are assured.

EXCLUSIVE ECONOMIC ZONE

Potential problems concerning freedom of navigation and movement within the EEZ are of special interest because this is

a relatively new area of legal regulation and it poses unusual problems of balancing coastal and other interests. As everybody knows, the EEZ as created by the LOS treaty is a means of satisfying coastal state economic interests in resources by conferring sovereign rights on this state over all resources in the zone. In addition the coastal state is delegated certain lesser authority with respect to other activities, i.e., environmental protection and scientific research. Coastal state authority, whether denominated as sovereign rights or jurisdiction, must have due regard for the rights and duties of other states under the treaty, including those subsumed under the freedoms of the high seas exercisable within the EEZ.

The legal problem of interest here is that of reconciling coastal state exercises of its sovereign rights or jurisdiction in the EEZ with the exercise of freedom of navigation. The exercise of sovereign rights over resources may on occasion obstruct freedom of navigation in the area or in some respect prevent its use for normal transit. Also the exercise of coastal jurisdiction for environmental protection could affect navigation in some circumstances. A recent example of the latter both illustrates the problem and raises a question about interpretation of the 1982 LOS treaty.

The U.S. Federal Register on 2 August 1984 carried the following notice: "NOAA is naming the East and West Flower Garden Banks in the Gulf of Mexico an Active Candidate for potential designation as a national marine sanctuary; and will proceed with subsequent steps in the evaluation process. The site, located 123 miles (198 km) due south of Sabine Pass, Texas, was placed on the National Marine Sanctuary Program Site Evaluation List on August 4, 1983" [17].

Designation of marine sanctuaries is provided in Title III of the Marine Protection, Research and Sanctuaries Act of 1972, as amended, for the purpose of preserving or restoring "those areas of the ocean waters, as far seaward as the outer edge of the continental shelf" (and other waters) "for their conservation, recreational, ecological, or esthetic values" [18].

The main reason for concern about the proposed designation is contained in the following passage in the Notice under the heading "Consideration of the immediacy of the need for sanctuary designation."

> Current information indicates that anchor damage by large commercial vessels continues at the Flower Garden Banks resulting in significant damage to the living coral communities. At this time, information on such damage is only available from various researchers performing monitoring studies for oil and gas companies in the vicinity of the Banks. Substantial damage to the reefs from large anchors has been reported by Dr. Thomas Bright, Texas A&M University .... The continued, cumulative effects of such activities to the resources are also likely to be

significant. As part of the development of the EIS and Management Plan, formal documentation of such occurrences and the extent of damage will be prepared as the EIS is developed.

Other Federal regulatory authorities are not sufficient to protect the Banks from this type of anchor damage. Existing Minerals Management Service stipulations which establish a "no anchoring zone" are not applicable to vessels not engaged in actual oil and gas activities at the Banks. Further, as discussed above, the prohibition of reef anchoring by vessels over 100 feet in length has been eliminated from the proposed regulations implementing the final Coral Reef Fishery Management Plan, which applies to the Gulf of Mexico.

Title III of the Marine Protection, Research and Sanctuaries Act provides that sanctuary regulations be applied "in accordance with recognized principles of international law ..." In a letter to Dr. Nancy Foster, Chief of the Sanctuary Programs Division, the Department of State advises: "The Department [of State] believes that the United States does have jurisdiction to prohibit anchoring in the area, except for anchoring required by force majeure" (letter from Edmund E. Wolfe, Deputy Assistant Secretary for Oceans and Fisheries Affairs to Dr. Nancy Foster, Chief, Sanctuary Programs Division, 19 April 1984) [19].

The question is whether the no-anchoring regulation would be consistent with "recognized principles of international law," having in mind that the current Administration has said that the LOS treaty "contains provisions with respect to traditional uses of the oceans which generally confirm existing maritime law and practice and fairly balance the interests of all States" [20]. The United States has also said that it will act in accordance with the balance of interests established in the LOS treaty for traditional uses of the ocean. Is it lawful under the LOS treaty standards for a state to prohibit anchoring over its continental shelf or within its EEZ as a means of protecting the environment? [21] If the U.S. persists in this effort, is this another example of acting inconsistently with the LOS treaty while elsewhere continuing to hold out that we abide by the nonseabed portions of the treaty? Is it necessary to characterize this problem as one of environmental protection?

An important initial observation is that the letter from Dr. Nancy Foster to the State Department requesting a written reply suggested a basis for the no-anchoring rule that would not have raised the jurisdictional issue. Her letter of request, dated 6 April 1984 [22], reads in relevant part:

> A major reason for establishing a marine sanctuary in this ocean area would be to protect the coral resources found in Flower Garden Banks from

> destruction caused by the anchoring of vessels waiting for entrance to the United States ports. Most of the vessels reported to be anchoring in the area are foreign flag vessels, and since we must regulate the activities of non-citizens and foreign flag vessels within marine sanctuaries in a manner consistent with international law, I request that you state whether, in the opinion of the Department of State, international legal authority would allow the United States to prohibit anchoring within Flower Garden Banks. Specifically, may NOAA, as an exercise of the authority of the United States to prescribe port State entry requirements, deny entry to United States ports to vessels determined to have anchored in Flower Garden Banks?

In his reply, Mr. Edmund Wolfe of the State Department was not content to affirm that the U.S. could get at this problem through establishing conditions on port entry. In fact the specific request from Dr. Foster concerning ports is pretty much ignored. His letter mentions the general question of whether the U.S. has jurisdiction to prohibit anchoring.

> Resolution of that question necessarily involves a determination of the appropriate balance between the resource interests of the coastal State and the navigational freedoms of the vessel flag States. Anchoring is a necessary part of the time-honored freedom of navigation, and coastal State limitations on the exercise of that freedom, beyond the territorial sea, must not be undertaken lightly. In this case, however, it appears that the proposed limitation is justifiable because of the demonstrable damage that anchoring can do to the fragile coral formations and because of the relatively limited area in which anchoring will be prohibited. Therefore, the Department believes that the United States does have the jurisdiction to prohibit anchoring in that area, except for anchoring required by <u>force majeure</u>.

As if to underline the claim being asserted, Mr. Wolfe continues:

> Coastal State rights to enforce resource jurisdiction do not, as you know, derive solely from the presence of the offending vessel or person in a port of the coastal State. This being true, it would not be necessary to rely on denial of port entry as the chief enforcement device. The Department therefore suggests that no reference to port State entry requirements be made if NOAA decides to establish a marine sanctuary in the Flower Garden Banks area [23].

Unfortunately the Wolfe letter contains no analysis of relevant law, no discussion of state practice (if any), and no reference at all to the provisions of the LOS treaty. Although it seems highly probable that such analysis was attempted, in addition to the brief observations in the DEIS, they do not appear to be published [24].

The preliminary question is whether it is acceptable to characterize this as an exercise of resource jurisdiction rather than as an environmental protection measure. The principal thrust of the U.S. marine sanctuary legislation appears to be environmental, not exploitation. Other statutes deal with resource use and management, specifically the OCSLA and the MFCMA. As the Federal Register notice observes, the coral found on the Flower Garden Banks is subject to the authority of the Gulf of Mexico Fishery Management Council which has a management plan for coral. It had been thought that the Council would recommend a no-anchoring regulation, but it did not do so.

Whatever the view of the Gulf Council or of the State Department, the manifest objective of the no-anchoring rule is to prevent harm to the coral from an activity that is not itself targeted on the coral. If some other activities were pursued in the area, such as military exercises involving explosives, they too would need to be regulated and possibly prohibited in order to protect the coral. No one would argue that the "management" action in that circumstance was equivalent to a regulation of an activity intended to exploit or even to affect the coral. In this instance, the vessels involved may be wholly oblivious to the nature of the bottom on which their anchors are fixed.

The Senate Committee Report, which originally rejected the idea of marine sanctuaries, seemed to have in mind an environmental purpose in its view of such sanctuaries:

> The Committee believes that the establishment of marine sanctuaries is appropriate where it is desirable to set aside areas of the seabed and the superjacent waters for scientific study, to preserve unique, rare, or characteristic features of the oceans, coastal, and other waters, and their total ecosystems. In this we agree with the House of Representatives. Particularly with respect to scientific investigation, marine sanctuaries would permit baseline ecological studies that would yield greater knowledge of these preserved areas both in their natural state and in their altered state as natural and manmade phenomena effected change [25].

Continuing,

> Marine sanctuaries require the forbearance of all people, United States citizens and foreign citizens, from acts that would destroy or harm the natural values within the sanctuary. United States jurisdiction does not extend to foreign people or

ships in high seas areas: domestic legislation authorizing designation of marine sanctuaries in such areas would be ineffective unless international agreements were executed to establish sanctuaries and to regulate the conduct of signatories in them.

Because the sanctuary legislation is aimed at environmental protection, rather than at providing a regime for exploration and exploitation of resources, applicable international law is that concerning protection of the marine environment. In light of the U.S. Oceans Policy statement, noted above, announcing U.S. adherence to the nonseabed portions of the treaty, it is appropriate that Part XII of the LOS treaty be taken to establish the standards of acceptability for the proposed no-anchoring requirement in the sanctuary. Part XII is entitled "Protection and Preservation of the Marine Environment" and it is primarily concerned with marine pollution.

For present purposes the most important aspect of the treaty's definition of "pollution of the marine environment" is the broad reach of activities it embraces:

> "Pollution of the marine environment" means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities;... (Emphasis added.)

The activities toward which Part XII is aimed are those that cause pollution in the sense of this definition. The consequences which are the target of the no-anchoring rule seem easily to fit within this concept of pollution. Anchoring introduces both a substance and energy into the marine environment and the effects are harm to living resources and hindrance to fishing.

Article 194 suggests also that the provisions of Part XII are applicable to all manner of pollution, whatever the form taken. The first paragraph of this article declares that "the measures taken pursuant to this Part shall deal with all sources of pollution of the marine environment" and then mentions some of those measures. More significantly, the last paragraph of Article 194 appears to be aimed directly at the marine sanctuary: "The measures taken in accordance with this Part shall include those necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life." These terms seem well chosen to describe the concept of the marine sanctuary and they make it difficult to contend that under this treaty measures to create a sanctuary for protection

of habitat are not a part of a coastal state's resource jurisdiction.

In addition to clarifying the scope of the treaty regarding the concept of pollution and the measures subject to international standards, Article 194 also provides general guidance regarding the standards applicable to measures to protect and preserve the marine environment. Paragraph 4 provides that "In taking measures to prevent, reduce or control pollution of the marine environment, States shall refrain from unjustifiable interference with activities carried out by other States in the exercise of their rights and in pursuance of their duties in conformity with this Convention."

The LOS treaty does not spell out in detail what is "justifiable" and what is not. However, the treaty provides guidance for that assessment. The general provisions of Part XII indicate that this Part seeks to be comprehensive in dealing with coastal state actions aimed at protection of the marine environment. Accordingly great weight must be given the fact that the Convention limits the scope of coastal state authority to prescribe measures with which foreign vessels must comply in the EEZ and carefully provides for decisions at the international level regarding pollution standards in this area. Moreover, the only coastal state enforcement actions for pollution incidents in the EEZ are for discharge violations of international standards. No actual detention of a vessel in the EEZ is permitted unless the violation results in a discharge that causes "major damage or threat of major damage to the coast line or related interests of the coastal State, or to any resources of its territorial sea or exclusive economic zone ...." No other ship-caused pollution except dumping is subject to coastal enforcement measures.

Article 211 of the 1982 Convention highlights the limited character of coastal authority regarding marine environmental protection beyond the territorial sea under the treaty, which the U.S. presumably supports as evidence of customary law with which it wishes to comply. Paragraph 1 provides for internationally established rules and regulations for prevention, reduction, and control of pollution from vessels, including the provision of routing schemes "designed to minimize the threat of accidents which might cause pollution of the marine environment." Paragraph 5 provides that for enforcement purposes in the EEZ coastal states may establish laws and regulations, but these are limited to those conforming and giving effect to generally accepted international rules and standards. Paragraph 6 is highly significant because it provides for an international procedure and mechanism for a coastal state which believes the international rules and standards are inadequate to meet special circumstances. This procedure essentially calls for international review through the IMO of the special circumstances and a determination whether special measures are needed to deal with the special circumstances. If an affirmative determination is made then the coastal state may "for that area, adopt laws and regulations for

the prevention, reduction and control of pollution from vessels implementing such international rules and standards or navigational practices as are made applicable, through the organization, for special areas."

The coastal state is also authorized under paragraph 6 to adopt additional rules and regulations, which may relate to navigational practices, but these must also be submitted to and agreed by IMO.

While Article 211 may be aimed primarily at discharges and routing schemes in special areas, the language is broad enough to include restrictions on navigation such as prohibitions on anchoring, especially having in mind the general purpose of Part XII of safeguarding navigation and providing for marine environmental protection. If the United States wishes to adopt special regulations prohibiting anchoring, and to comply with the balance of interests established by the LOS treaty, a new approach seems necessary.

Even if Article 211 were narrowly interpreted so as not to include anchoring regulations, this would simply confirm that the coastal state is not authorized under the treaty to interfere with navigation in such a way since the Convention sought to deal with pollution and coastal authority in a comprehensive way. The absence of provision for this element of environmental protection means that the treaty does not authorize such action by the coastal state vis-a-vis other nations.

Since it is assumed for this discussion that the treaty represents customary law, as the United States appears to be willing to assume, it follows that there is no authority under international law to prohibit an incident of navigation beyond the territorial sea. This conclusion is reinforced by what we know of state practice, and confirmed by the assessment of international law by the report of the United States Senate Commerce Committee when the marine sanctuary legislation was before that Committee in 1972. There never has been any state practice of restricting navigation or of interfering with elements of navigation for the purpose of environmental protection. This was true in 1972 and it is still true today. Accordingly, whether one looks to the 1982 LOS treaty for evidence of customary law or to state practice or to both combined, the United States would not be proceeding in accordance with recognized principles of international law if it forbade anchoring of foreign tankers in the Flower Gardens Banks. Such a regulation would also, therefore, be in violation of U.S. law.

For present purposes it was convenient to focus upon a specific instance of coastal state action affecting an incident of navigation. However, the general issue involved deserves more extended discussion, namely the relationship between the coastal state's rights and jurisdiction for resource purposes and its authority to prescribe and to apply policy for the protection of the marine environment, on the one hand, and the general international community's rights and interests in use of

the EEZ and continental shelf. It has long been obvious that environmental protection could have negative effects on navigation, and therefore great care was taken in the LOS negotiations to protect the latter, but less detailed attention has been devoted to issues presented by resource rights and navigation freedoms. This problem is not going to disappear and it could prove increasingly difficult as time goes by.

NOTES

1. Oxman, Bernard H., From Cooperation to Conflict: the Soviet Union and the United States at the Third United Nations Conference on the Law of the Sea, 1984 McKernan Lectures in Marine Affairs, Institute for Marine Studies, University of Washington, 1985.
2. Id.; see also Hollick, U.S. Foreign Policy and the Law of the Sea, chaps. 6 and 7 (1981).
3. But see Reisman, Michael, The Regime of Straits and National Security: An Appraisal of International Lawmaking, 74 Am. J. Int'l L. 48 (1980).
4. Articles 91-94.
5. Articles 17-26.
6. Articles 37-44 and 53-54.
7. Articles 56 and 77, and other articles in Parts V and VI.
8. Article 56 and Part XIII.
9. See Chapter III of the UNCTAD Secretariat Report on the Economic Consequences of the Existence or Lack of a Genuine Link between Vessel and Flag of Registry, UNCTAD Doc. No. TD/B/C.4/168, 10 March 1977.
10. Report of the Secretary-General, Law of the Sea, UN Doc. No. A/39/647, 16 November 1984, pp. 16-17.
11. Claims against the U.S. Government were dismissed in Rappenecker et al v. United States, 509 F. Supp. 1024 and 1018 (1981). For accounts and discussion of this incident see Seizure of the Mayaguez, Hearings before the Committee on International Relations, House of Rep., 94th Cong., 1st Sess., Parts I-III (1975) and Reports of the Comptroller General of the United States submitted to the House Committee on International Relations (1976). See also Paust, The Seizure and Recovery of the Mayaguez, 85 Yale L. J. 774 (1976); letter from Michael Sandler, Office of Legal Adviser, Dept. of State and author's reply, 86 Yale L.J. 203-13 (1976).
12. Careful heed is due the admonitions of Prof. Oxman on this point:

> The irony is that a U.S. administration strongly committed to the expansion of the global military capability of the United States, including its capacity to project naval power, declined to

> accept the Convention when it was completed in 1982 because of its deep seabed mining provisions. This raises a more profound question regarding the future of the regime of warships. Lying behind the learned and conflicting arguments about the content of the future customary international law of the sea are assumptions about priorities: the will to act in a situation in which law is made, and unmade, by acquiescence. It was the strong priority accorded economic over political or military considerations that influenced the rest of the world to concede to the major powers most of what the latter desired on military issues at the Law of the Sea Conference. In broad terms, the same reasoning could apply to the reshaping of "customary law" in the coming years.
>
> The question is whether the major powers in general, and the United States and Western Europe in particular, are themselves beginning to lower the priority they accord naval considerations (particularly the facilitation of global naval mobility and operations) as against economic, environmental, and perhaps even alternative defense considerations in shaping their ocean policies.
>
> If we are witnessing such a change in priorities -- dramatized by the U.S., British, and West German decisions not to sign the Convention -- then we must expect corresponding changes in the law over time.

Oxman, The Regime of Warships under the United Nations Convention on the Law of the Sea, 24 Va. J. Int'l L. 809, 862-63 (1984).

13. See especially, Reisman, op. cit. supra, note 3.
14. The LSI Workshop in January, 1984 brought together several of the most knowledgeable participants and observers of the III Law of the Sea Conference. Their comments and discussions are remarkably clear and illuminating on the contemporary expectations of negotiators. See especially pp. 57-72, 292-311, and 540-549 in Van Dyke, ed., Consensus and Confrontation: The United States and the Law of the Sea Convention (1985).
15. See, for example, the testimony of John Norton Moore reported in Digest of United States Practice in International Law 1975, pp. 431-32 (1976).
16. The United States argument at the time of the negotiations was not that current customary international law recognized free transit through straits. It was that in the U.S. view the areas of straits that would be affected by a twelve-

mile territorial sea were high seas through which customary law recognized freedom of navigation. The United States considered that recognition of a right of free transit would preserve the gist of the regime of the high seas, although it would not be exactly the same and some aspects of free navigation would be surrendered. The problem with this, of course, is that it recognizes that in the absence of a special right such as free transit, the extension of the territorial sea carries with it lesser rights of passage than are enjoyed on the high seas. It was argued that this did not necessarily have to be the case because straits are different areas than the territorial sea proper. This argument can be conceded, of course, in the context of a treaty negotiation and, as has been seen, it did win the day. But the situation the United States faces is that it rejected the treaty it tried so hard to secure. And it cannot point to anything in customary law that suggests radically different treatment for the territorial sea in straits. Indeed the evidence is that under customary international law innocent passage was considered applicable in straits with the sole difference that it could not be suspended. Neither the United States nor the Soviet Union have been able to demonstrate that traditional customary law recognized or required some special limitation on the rights of coastal states in extended territorial seas.

17. 49 Fed. Reg. 30988, 2 August 1984.
18. 16 U.S.C. Section 1432. The Marine Sanctuaries Amendments of 1983 were approved after the above was written and are not taken into account of this paper.
19. 49 Fed. Reg. 30990, 2 August 1984.
20. Statement of Ocean Policy, March 10, 1983, Weekly Compilation of Presidential documents of March 14, 1983.
21. In this instance the purpose of the proposed rule of no-anchoring is not to protect the coral from harvesting or to establish a conservative rate of exploitation, but to prevent incidental harm from an activity that is not directed at the coral. The objective of the proposed action more closely resembles protection of the marine environment than management of resource use. Particularly in the case of living marine resources, management is dealt with by an entirely different statutory and regulatory structure and principles.
22. Letter in author's files.
23. Copy of letter from Edward E. Wolfe to Dr. Nancy Foster in author's files.
24. The Draft EIS for Flower Gardens Bank does contain references to international law, including the 1958 Shelf Convention. The DEIS otherwise employs the technique of qualifying proposed actions by the phrase "in accordance with international law," leaving to others the task of making that determination. Specifically, to avoid direct regulation of navigation, the DEIS suggests securing

international recognition, through IMCO, of the sanctuary as an area "to be avoided." But the sanctuary designation would still authorize such regulation "in accordance with international law."

25. U.S. Senate Report in 3 U.S. Code Congressional and Administrative News 4234, 4241, 92nd Congress, Second Session 1972.

UNCLOS III AND CONFLICT MANAGEMENT IN STRAITS

Rear Admiral Bruce A. Harlow
Assistant Judge Advocate General
United States Navy

My topic today involves the emerging law of the sea and its consequences on the management of armed naval conflict. Specifically, I am going to address the impact of the twelve-nautical-mile territorial sea regime [1] on navigation in straits during periods of armed hostilities. You may wonder why I have chosen to present such an apparently "military" topic to an audience consisting mostly of civilian lawyers, academicians and business people. I can assure you that although I am going to be addressing matters collaterally relating to naval warfare, the principal issue of navigation in straits in time of hostilities is of crucial importance to civilian as well as military maritime interests. From a military perspective, our naval and air forces must be able to move about the world's oceans to the degree necessary to meet a variety of military and political commitments. We in the Navy are tasked with the protection of U.S. citizens and their property at sea, and it is impossible to predict with any certainty where our interests may be challenged in the future. Further, unlike our principal adversary, we are a maritime nation, dependent upon sea lanes of commerce for our international trade, including much of our fossil fuel energy requirements, and many of the raw materials essential to our industry. Therefore, any encroachment upon our ability to fully utilize the oceans must be viewed as a matter of grave national concern in the boardroom and classroom as well as the wardroom.

From the earliest efforts to codify the law of the sea at The Hague in 1930 [2], the principal goal of the United States regarding navigational access and passage has been the preservation of maximum operational mobility and flexibility at minimum political and economic cost. It was not until the post-World-War-II era that the traditional expectations of maritime nations regarding ocean access and passage were called into question as the result of a growing capability of coastal states to exploit living and non-living resources adjacent to their coasts. The United States asserted sovereign rights over certain resources beyond its territorial sea by the Truman Proclamation of 1945 [3]. This proclamation, in essence, stated that coastal state jurisdiction over natural resources of the subsoil and seabed of the adjacent continental shelf was reasonable and just, inter alia, because the shelf was an extension of the land mass of the coastal nation. By the mid-1950s, a sizeable number of nations had made maritime claims to broad coastal areas of an even more comprehensive nature, citing the U.S. example as precedent.

The first and second United Nations Conferences on the Law of the Sea (in 1958 and 1960 respectively) were intended, among

other things, to halt this proliferation of coastal claims. The 1958 Conference resulted in the adoption of four conventions (Territorial Sea and Contiguous Zone, the High Seas, the Continental Shelf, and Fishing and Conservation of Living Resources of the High Seas) [4]. Neither the 1958 nor the 1960 Conference was able to reach agreement on the maximum breadth of the territorial sea [5]. This failure to delimit the breadth of the territorial sea by convention resulted in increased unilateral declarations by coastal states arbitrarily extending their territorial sea claims beyond the historic three-nautical-mile limit, to ocean areas which traditionally had been regarded as high seas [6].

The impact of increasing territorial sea claims was a matter of concern particularly with respect to international straits. Maritime commerce is presently dependent upon passage through roughly 100 international straits that dominate the major ocean avenues of world trade. An additional 161 straits are similarly susceptible of use and may become important to maritime communication in the future. Moreover, air and sea mobility are essential to our fulfillment of some 40 bilateral and multilateral mutual defense agreements. Such mobility is dependent upon unimpeded passage through straits.

Concerned that the expansion of coastal state maritime claims might jeopardize the uniqueness of straits, the U.S. and USSR in 1967 discussed the possibility of a third Law of the Sea Conference. The contemplated conference was to have three purposes:

(1) to fix the maximum breadth of the territorial sea at twelve miles;
(2) to explicitly preserve, in international straits, traditional freedoms of navigation as had existed in the pre-twelve-mile territorial sea regime; and
(3) to resolve certain fisheries issues.

The U.S. and USSR reached agreement on these issues and began to poll the world community through their ambassadors abroad on the acceptability of a new Conference on the Law of the Sea limited to these three issues. At the same time as the initial U.S.-USSR consultations, Ambassador Pardo of Malta focused international attention on the great potential value of minerals on the bottom of the ocean in a 1967 UN speech calling for UN action to declare that these minerals were the "common heritage of mankind." Thus, by the time the U.S.-USSR proposal was being sounded out in the capitals of the world, the Pardo initiative had alerted the UN to the general subject of deep sea resources. As a result, a UN consensus for a Law of the Sea Conference developed, but it was to be comprehensive in nature and not limited to the navigational issues originally contemplated by the U.S. and USSR. Nevertheless, to the U.S., navigational access and passage were the key issues to be addressed and resolved by the Conference.

From the first substantive session of the Conference, agreement on a twelve-mile territorial sea was a foregone conclusion; in public debate, no other limit was seriously discussed [7]. At the same time, one of the conditions for acceptance of twelve miles by the maritime nations was a provision assuring unimpeded transit through those straits that would no longer have a high seas corridor and in which there would be no right of submerged transit or overflight if agreement were reached that an "innocent passage" regime were to apply [8]. In negotiating an accommodation of both the interests of the maritime states in guaranteeing continued passage rights and those of the straits states regarding navigational safety and pollution, the Conference subordinated the coastal state's traditional [incidents] of territorial sovereignty to the needs of the international maritime community. The straits regime the Conference adopted is not, as many publicists would have you believe, anything new. Quite to the contrary, the straits provisions reflect "business as usual," and are merely a recitation of traditional state practice in the context of the recognition of a twelve-nautical-mile territorial sea standard.

The 1982 Convention's straits regime may be summarized as follows [9]:

First, in recognition of the functional distinction between straits and territorial seas, the straits regime is entirely separate within the Convention from the territorial sea regime.

Second, Article 38 of the Convention creates a term to describe routine straits passage: transit passage. Transit passage is defined as: "The exercise ... of freedom of navigation and overflight solely for the purpose of continuous and expeditious transit of the strait between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone." Transit passage pertains in all such straits, except those in which passage is regulated by long-standing international conventions, and except where the strait is formed by an island and the mainland of the coastal state, and an alternative, similarly convenient route exists seaward of that island. The Convention further provides that transit passage is non-suspendible. Non-suspendible innocent passage applies in straits in which transit passage is not applicable.

The transit passage regime guarantees unimpeded surface, subsurface, and air navigation in international straits for the purpose of expeditious passage through the strait. Transitting warships are restricted to those activities incidental to passage through the strait consistent with security of the unit (for example, the use of radar, sonar, and air cover). They are also required to comply with generally accepted international safety and pollution regulations, and to respect sea lanes and traffic separation schemes properly adopted by the coastal state.

Article 42 creates limited coastal state competence to adopt laws and regulations regarding transit passage; however,

paragraph 2 provides that: "[s]uch laws and regulations shall not discriminate in form or in fact among foreign ships or in their application have the practical effect of denying, hampering, or impairing the right of transit passage as defined in this section." Article 44 prohibits coastal state interference with transit passage with the following language: "States bordering straits shall not hamper transit passage and shall give appropriate publicity to any danger to navigation or overflight within or over the strait of which they have knowledge."

Parenthetically, at this point I should emphasize that, despite its relatively large number of signatories, the 1982 Convention has no status other than that of a treaty not yet in force. It may never enter into force, and, even if it enters into force, it might do so as the result of ratifications by states of minimal maritime significance. It may fairly be concluded, however, that with respect to navigation, the Convention generally represents customary international law as developed through centuries of state practice. Accordingly, for purposes of my presentation today, I will assume that notwithstanding the uncertainties of ratification of the Convention, future questions of navigation will be resolved along the lines of the concepts contained in the Convention.

The legal regime articulated for international straits in the Convention is a significant milestone in the reconciliation of competing interests attendant upon navigation in international straits. But I also submit that ultimately the refinement of respective rights and obligations of states in international straits can only be harmonized through the process of claim and counterclaim, a slow and somewhat tedious process. Extremely difficult, yet highly important, questions deserve thoughtful analysis in the context of the 1982 Convention's territorial sea and straits provisions.

One such question upon which I believe international lawyers and national policymakers need to be focusing their legal and political skills is the analysis, in the context of the 1982 Convention's territorial sea and straits regimes, of the rights and obligations of all states in international straits during periods of armed conflict, particularly when armed conflict is at a serious and sustained level, and states begin to invoke the traditional rights of belligerents and neutrals. In such an environment, which I might add is not at all far removed from current reality, I can foresee serious potential for confrontation unless states direct their actions and claims in respect to international straits in such a way to ensure a proper balance between the requirements of states participating in the conflict and those states not participating.

Let me first explain my reluctance in employing the terms "belligerent" and "neutral" in referring to the rights and duties of states during a period of armed conflict. We all recognize that these terms are associated with a "state of war," and that the rights and duties of states during "war" have been

codified in the 1907 Hague Conventions. We also know that, with a few exceptions, there have been no formally declared "wars" since World War II [10], but that "armed conflict" or "armed hostilities" have been with us almost continually in the post-World-War-II period.

My point is that, given the reality of armed conflict between two or more states, the respective rights and duties of the participants and nonparticipants will not be determined by the existence of a formal "state of war;" nor will their respective rights and duties be determined by an arbitrary determination that the rules applicable during "peacetime" govern. Rather, evaluation of the rights and duties of the participants and nonparticipants under international law should proceed by measuring basic legal principles firmly established by the practice of states during armed conflicts over the centuries against the current national security requirements and political realities. I would submit that these principles include, at a minimum:

- the principle that the use of force is governed by military necessity, and constrained by considerations of proportionality and humanitarian concern, and
- the principle that hostilities must be limited in scope and nature to the participants themselves, and that nonparticipants must remain unaffected to the maximum extent possible.

If one proceeds from the perspective of these fundamental principles of armed conflict, the evaluation of the competing claims of participants and nonparticipants regarding their rights and duties in straits will result in the application of some of the rules traditionally associated with the "law of war," as well as many "peacetime" rules. Many of the rules in each category may be either not applicable to a particular conflict or unworkable and therefore unlikely to be invoked.

Straits, I should point out, are not the only ocean areas for which competing interests must be balanced and permissible activities defined in the context of armed conflict. Archipelagoes, for example, present similar problems for the lawyer, politician, and naval planner. I focus my remarks today on straits only because of the time constraints and because straits are the ocean area where differences in states' expectations are most likely to occur. You need only to look at the front page of your newspaper to see that this is so; straits are, as I like to say, where the "propeller bites the water."

The traditional rules relating to belligerent naval operations and neutrality are derived from the 1907 Hague Convention XIII concerning the Rights and Duties of Neutral Powers in Naval War (Hague Convention) [11]. These rules were refined over the course of two World Wars and may reasonably be concluded to be reflective of customary international law. The Convention refers to "neutral territorial waters" and "neutral waters" without directly addressing territorial waters in international straits and provides, in summary, as follows:

- As a general rule, belligerent military aircraft may not enter neutral airspace, including airspace superjacent to territorial seas of a neutral.
- A belligerent is forbidden to use neutral territorial waters as a sanctuary or base of operations against its adversaries.
- A neutral may refuse to allow passage of a belligerent warship through its territorial sea on a non-discriminatory basis among the belligerents.
- A neutral may, on a non-discriminatory basis among the belligerents, permit submerged transit of submarines through its territorial sea or elect to allow only surface passage.
- When a neutral is unable or unwilling to prevent abuse of its neutrality by a belligerent, that belligerent's adversaries may take action to prevent further abuse.

In my opinion, an analysis of the rights of participating and nonparticipating states in contemporary naval armed conflict limited solely to superimposing the twelve-nautical-mile territorial sea regime in the 1982 Convention onto the Hague Convention rules oversimplifies the issues to be resolved and is likely to yield conclusions not reflective of emerging international law. It is an error of logic to attempt to overlay a 77-year-old articulation of rights intended to balance belligerent and neutral interests, as they existed then, onto a contemporary and significantly changed set of circumstances, such as where the twelve-nautical-mile territorial seas are recognized as the norm and over 201 straits no longer have a high-seas corridor. At the time of the Hague Convention in 1907, no distinction existed in the law of the sea between peacetime navigational rights in straits and those applicable in the ordinary territorial sea, because virtually all significant straits contained high seas corridors. There was simply no need then to articulate separate rules for straits passage.

The question is, then, not what is the effect of the twelve-nautical-mile territorial seas regime on neutral rights in straits but rather, in view of the changed regime, what are the rules that will preserve the interests of participants and nonparticipants during armed conflict now and in the future? The answer, I believe, is that, in view of their indispensibility to ocean navigation, straits should not be used in implementation of national tactical or defensive policy, even in time of armed conflict.

For example, may a strait state participating in armed hostilities employ mining in its territorial waters in an international strait as a measure of coastal defense?

I would answer that defensive mining should be limited to non-strait territorial waters. That is, the participating coastal state should neither be permitted to suspend or hamper transit passage and, in my opinion, mining would clearly "hamper" transit passage. The fact that the 1982 Convention provides for temporary suspension of innocent passage in territorial seas generally, but not of transit passage, or innocent passage in straits where transit passage does not

apply, highlights the distinction between territorial waters generally and straits comprised of territorial waters. It is true that by strictly applying the transit passage concept in this manner, the coastal state appears to "lose" a defensive alternative it had in straits under the three-nautical-mile territorial sea regime. I would submit, however, that today's technology in both weaponry and tactics has rendered an arbitrary coastal defensive margin an anachronism, and the coastal state's loss is merely illusory. For any contemplated activity in a strait that might encroach on the exercise of transit passage, there will always be an alternative suitable to the needs of the participants in an armed conflict.

Permit me to give another brief example. Should the exercise of visit and search be permitted in the waters of an international strait?

Superficially, straits are an attractive venue for visit and search. A minimum of resources is necessary to monitor maritime traffic in straits. Furthermore, a ship's maneuverability is severely restricted in straits, limiting the likelihood of escape. From the perspective of the coastal state, straits are particularly desirable for visit and search because of the availability of coastal radars and shore batteries as well as shore-based air cover and, in many cases, because of the accessibility of friendly ports should the ship be diverted or seized.

Notwithstanding this potential desirability to the military planner, my view is much the same as in the previous example. Neither the warship nor a participating strait state should be permitted to conduct visit and search in an international strait. International straits passage is simply too important to international commerce and communication to permit any activity which limits or threatens its exercise. To permit a belligerent warship to conduct visit and search in a neutral international strait would, in my opinion, unacceptably alter the delicate balance reflected in the transit passage regime.

As a practical matter, the delay of a ship in a strait for purposes of visit and search "hampers" the right of transit passage of the entire international community. Coastal combatants and even small ocean-going combatants are highly maneuverable in restricted waters; merchant ships do not share that capability. Their propulsion and steering systems are designed for efficiency, not for responsiveness to rapid or extreme course and speed changes. To place any extraordinary requirement upon a merchant ship to maneuver in straits places that ship and other ships using the strait at risk.

Finally, and perhaps most importantly in terms of conflict management, in determining applicable rules regulating armed conflict in straits, to permit visit and search in the territorial waters of a strait bordered by a nonparticipating coastal state risks drawing that state into the conflict. This may occur by military confrontation with a participating state in an attempt by the nonparticipating coastal state to prevent visit and search in its territorial waters. It might also occur

as a result of direct actions by participants in the conflict who perceive that the coastal state permits acts in its territorial waters inconsistent with its status as a nonparticipant in the conflict.

I am not suggesting complete demilitarization of international straits; that would be unrealistic. Both straits states and straits users retain their inherent right of self-defense as recognized by the UN Charter. In an extraordinary instance of extreme national peril, it may be necessary to restrict the right of transit passage in the interest of national survival. What I am suggesting is that, except in a case of extreme peril involving national survival, the rights and obligations of nations participating in armed conflict, and those of nonparticipating states, can best be preserved by maintaining transit rights in straits.

I have attempted to explore with you some of the vexing questions that policymakers must face as states begin to apply the rights and responsibilities articulated in the 1982 LOS Convention. In this post-Conference setting, the law of the sea is in a state of flux. International law will be determined to a large degree, in my opinion, by state practice ... the time-tested process of claim and counterclaim. The same can be said for the rights and responsibilities of participants and nonparticipants in an armed conflict setting. If the law of the sea is to serve as a blueprint for peaceful and efficient use of the oceans, every aspect of those activities of states which may have an impact on navigation must be critically scrutinized to determine what impact they may have on the delicate balance reflected in the customary rules governing ocean use.

NOTES

* Assistant Judge Advocate General of the Navy, Formerly Department of Defense and Joint Chiefs of Staff Representative for Ocean Policy Affairs, and Vice Chairman of the U.S. Delegation to the Third UN Conference on the Law of the Sea. The views expressed herein embody only the author's personal reflections and should not be taken as official positions of the U.S. Government, the Department of Defense, the Joint Chiefs of Staff, or the U.S. Navy. The author gratefully acknowledges the assistance of Commander Peter E. Misiaszek, JAGC, USN; Head, Law of the Sea Branch, International Law Division, Office of the Judge Advocate General of the Navy.

1. Article 3 of the 1982 Convention provides for a maximum territorial sea limit of twelve nautical miles. On 10 March 1983, the President declared that the policy of the United States would be to recognize maritime claims consistent with the Convention so long as the coastal state is willing to accord U.S. ships and aircraft the rights set forth in the Convention.

2. 24 A.J.I.L. Supp. 1-79, 169-258 (1930). The Hague Codification Conference of 1930 included 47 nations and the Free City of Danzig as participants. Although several other law of the sea issues were proposed for Conference consideration, only territorial seas issues were debated. No Convention resulted from the Conference.
3. Proclamation No. 2667, "Policy of the United States with Respect to the Natural Resources of the Subsoil and Seabed of the Continental Shelf," 28 September 1945; 4 Whiteman's Digest of International Law 756.
4. See for a complete text of the Conventions 52 A.J.I.L. 830-862 (1958).
5. Territorial seas limits were impliedly limited by the 1958 Convention on the Territorial Sea and Contiguous Zone to twelve nautical miles. See Article 24 of the Convention which limited the contiguous zone to twelve nautical miles.
6. In 1958, fifteen coastal states claimed territorial seas twelve nautical miles or greater. By 1982, 107 of 137 independent coastal states claimed territorial seas of twelve nautical miles or greater.
7. Stevenson and Oxman, The Third United Nations Conference on the Law of the Sea: The 1974 Caracas Session, 69 A.J.I.L. 13-14 (1975).
8. Id. at 14.
9. United Nations Convention on the Law of the Sea, U.N. Doc. A/Conf. 62/172, 7 October 1982.
10. Exceptions are the Arab-Israeli Wars, and the Indo-Pakistani War of 1965.
11. Oct. 18, 1907, 36 Stat. 2415, T.S. No. 545.

ARREST OF VESSELS AND THE LAW OF THE SEA

Norman Letalik
Assistant Professor of Law
Dalhousie Law School and
Research Associate
Dalhousie Ocean Studies Programme

INTRODUCTION

On 2 August 1926, just before midnight, a collision occurred on the high seas between the French mail steamer Lotus and the Turkish collier Boz-Kourt. The Boz-Kourt was cut in two and sank. Eight of the eighteen Turkish nationals aboard perished. When the Lotus arrived in Constantinople the next day, an inquiry into the collision was commenced by the Turkish police. On 5 August, Lieutenant Demons, the officer of the watch on board the Lotus at the time of the collision and the first officer of the ship, was arrested. Although a French national, Lieutenant Demons was forced to stand trial despite his protests that the Turkish court had no jurisdiction. On 15 September, the Criminal Court delivered its judgment. Lieutenant Demons was sentenced to eighty days' imprisonment and a fine of twenty-two pounds. The officer of the Boz-Kourt, who had survived the collision, was sentenced to a slightly more severe penalty [1].

The French government protested the arrest of Lieutenant Demons, its national. The dispute was submitted to the Permanent Court of International Justice (PCIJ) which was asked to determine whether Turkey had the right, under international law, to institute criminal proceedings against an officer of a foreign flag vessel for acts committed on a foreign flag vessel while it was on the high seas. The Court decided by a majority of seven to five that there was no rule of international law which prohibited a state, in this case Turkey, from exercising jurisdiction over a foreigner in respect of an offense committed outside its territory [2]. This decision was strongly criticized, as seamen could be held subject to foreign criminal laws of which they could have no knowledge [3].

The decision of the PCIJ in The Lotus is still worthy of interest for two reasons: first, for the controversy it created with regard to criminal jurisdiction over collisions between foreign vessels on the high seas; and second, and more importantly, because it graphically displayed the supremacy of state sovereignty inherent in the international legal system at that time, i.e., a sovereign state could act in whatever manner it wished provided that there was no positive rule of international law which expressly prohibited its actions. It is this underlying "abstentionism" which even today comes into conflict with the attempt of the world community to develop and promote common norms.

Today, just as in 1927, we fear that vessels may be subject to arbitrary arrest and detention by foreign coastal states be it for penal or other matters. This paper will investigate the international law of the arrest of vessels in the pre- and post-UNCLOS III era and speculate as to its future directions. For organizational purposes, this paper will be divided into two sections, arrest for civil matters and arrest for all other purposes. As civil arrest is by far the most common type of vessel arrest, this division was deemed the most appropriate even though it has only been dealt with in a cursory manner in public international legal fora.

ARREST OF SHIPS FOR CIVIL MATTERS

The Hague Codification Conference

The first international conference by public international lawyers to deal with the arrest of ships for civil matters was the Conference on the Progressive Codification of International Law which was held at The Hague from 13 March through 12 April 1930. It was part of a general movement spearheaded by the League of Nations to promote the codification of international law following the end of "the war to end all wars." As early as 1924 the Council of the League of Nations had appointed a committee of jurists to report on the codification of international law. The Committee decided that "territorial waters" was one of seven topics which was ripe for codification.

The Second Committee of the 1930 Hague Conference was entrusted with the task of developing a convention to codify the international law relating to the territorial sea and the contiguous zone. Although no agreement was reached by the Second Committee of the Conference, its report [4] nevertheless contained some insights with regard to the state of the international law of the arrest of vessels as it was perceived at that time.

The draft on the legal status of the territorial sea dealt with a number of issues which are related to the arrest of vessels, namely: the right of innocent passage [5]; a coastal state's ability to protect its rights in the territorial sea [6]; charging fees for passage through the territorial sea [7]; the boarding of foreign vessels passing through the territorial sea for the purpose of arresting persons aboard [8]; arresting or diverting a foreign ship passing through the territorial sea for the purpose of exercising civil jurisdiction in relation to a person on board the vessel [9]; the arrest of foreign government vessels [10]; the right of hot pursuit [11]; and the passage of foreign warships [12].

The comments of the Rapporteur of the Second Committee revealed that "all States admit the principle of freedom of maritime navigation" [13]. As well, it was recognized that international law "attributes to each Coastal State sovereignty over a belt of sea around its coasts" [14], subject only to the right of innocent passage. The major differences at the Hague Conference centered around the contentious issue of the breadth

of the territorial sea and the contiguous zone. The differences, however, were so great that it became impossible to conclude a convention. Consequently, the Committee, wishing to salvage its efforts, passed a resolution which requested that the Council of the League of Nations distribute the Draft Convention to its member states for consideration at future conferences [15].

In many ways it is difficult to evaluate the work of the Hague Conference. On the one hand, it was never even put to a vote, yet on the other hand, there was little evidence of dissension on many issues related to the arrest of ships. It is perhaps best to consider the Hague Conference as forwarding evidence with regard to state positions in a contentious field.

The 1952 Convention on the Arrest of Ships

The Comit Maritime International (CMI) is a non-governmental international organization dedicated to the progressive codification of maritime law. Constituted by the national maritime law associations of a number of maritime states, the CMI has traditionally represented the views of the international shipping establishment. By the time the CMI convened its 1951 Conference in Naples to discuss, inter alia, a convention on the civil arrest of ships, it had already concluded a string of successful conventions dealing with such diverse topics as collisions between vessels [16], salvage [17], limitation of liability [18], bills of lading [19], maritime liens and mortgages [20], and the immunity of state-owned ships [21]. Of these conventions, all but the last could be said to fall within the sphere of private international maritime law.

The 1926 Convention on the Immunity of State-owned Ships dealt with issues of sovereign immunity, normally the preserve of public international law. In particular, the convention attempted to place restrictions on the absolute immunity from arrest of state-owned vessels, in essence differentiating between acta imperii (acts of a sovereign in a public capacity) and acta gestionis (acts of a sovereign in a commercial capacity). Under the convention, government ships and cargo aboard those ships were not entitled to immunity from arrest and liability unless they were ships of war, state-owned yachts, patrol vessels, hospital ships, fleet auxiliaries, supply ships, or other vessels employed by the government in a non-commercial setting [22]. Even the immune vessels would be subject to claims proceeding in the courts of their flag state in respect of: 1) collisions; 2) salvage and general average; and 3) claims for repairs or necessaries [23].

Here, therefore, was a significant public international maritime law convention produced by an organization usually entrusted with codifying private international maritime law. While only nineteen states [24] signed the Immunity of State-owned Ships Convention, their numbers included such important maritime states as Great Britain, Germany, Norway and the Netherlands. By the time the Naples Conference of the CMI had been convened in September 1951, sixteen states had either

ratified or acceded to the Immunity of State-owned Ships Convention, including the four above-mentioned states and Greece [25, 26]. While these numbers could not be said to be overwhelming, especially considering the absence of the United States, the Soviet Union and Japan, they nevertheless represented a considerable shift amongst major maritime states regarding the right of state-owned ships to be immune from arrest [27]. It must, therefore, be assumed that by this point the CMI had a significant profile regarding conventions dealing with public international maritime law issues.

The agenda for the CMI's Naples Conference in 1951 included not only a Convention dealing with the civil arrest of ships [28], but it also included conventions on civil jurisdiction in matters of collision and penal jurisdiction in matters of collision, the latter convention dealing with the same issue which had come before the Permanent Court of International Justice a quarter of a century earlier in the case of The Lotus. Dealing at this point only with Article 2 of the 1952 Arrest Convention, one can see that it created a sweeping power of arrest for the coastal state:

> A ship flying the flag of one of the Contracting States may be arrested in the jurisdiction of any of the Contracting States in respect of any maritime claim, but in respect of no other claim, but nothing in this Convention shall be deemed to extend or restrict any right or powers vested in any Governments or their Departments, Public Authorities, or Dock or Harbour Authorities under their existing domestic laws or regulations to arrest, detain or otherwise prevent the sailing of vessels within their jurisdiction [29].

Unfortunately, the term "jurisdiction" was not defined.

The wording of Article 2 would appear to create broad powers of arrest for civil claims against all vessels within the territorial waters of a coastal state. It may be possible to "interpret away" the meaning of the term "jurisdiction" by stating that it would ordinarily refer to vessels within a coastal state's port, but this is surely an unnatural meaning for a term which would ordinarily include the territorial sea of a coastal state. Curiously enough, there was no discussion of this point in the Report of the International Commission which had been entrusted with drafting the Arrest Convention [30]. Examining the reports of the various national maritime law associations also reveals that this wording was not considered to be controversial. The report of the British Maritime Law Association, for example, stated that under English law, property which could be found on "English territory or within English territorial waters" could be arrested [31].

It therefore appeared that the Arrest Convention forwarded the general proposition that foreign ships may be arrested in the territorial sea of a coastal state provided that the creditor initiating the action had a "maritime claim." It is,

however, important to note that the class of subjects which could be termed "maritime claims" was limited by the Arrest Convention [32].

As if these powers were not sufficiently far-reaching, Article 3 of the Arrest Convention provided that even the sister ship of the ship against which the claim attached could be arrested. Finally, it invited further coastal state arbitrariness in arrest by stating that the claimant's liability for false arrest would be determined by the laws of the state in which the arrest had been made [33]. Consequently, if a coastal state's civil procedure rules do not provide for the payment of damages when a vessel has been wrongly arrested, there would seem to be few restrictions on the potential abuse of the infringement of the freedom of navigation and innocent passage through a coastal state's territorial sea.

The Arrest Convention and the 1958 Territorial Sea Convention[34]

The wide arrest powers of the Arrest Convention were in stark contrast to the civil arrest provisions of the aborted Hague Draft Convention on the territorial sea. The Hague Draft Convention had stated in Article 9:

> A Coastal State may not arrest nor divert a foreign vessel passing through the territorial sea, for the purpose of exercising civil jurisdiction in relation to a person on board the vessel. A Coastal State may not levy execution against or arrest the vessel for the purpose of any civil proceedings save only in respect of obligations or liabilities incurred by the vessel itself in the course of or for the purpose of its voyage through the waters of the Coastal State. The above provisions are without prejudice to the right of the Coastal State in accordance with its laws to levy execution against, or to arrest, a foreign vessel in the inland waters of the State or lying in the territorial sea, or passing through the territorial sea after leaving the inland waters of the State, for the purpose of any civil proceedings [35].

Under the Hague Draft Convention, vessels merely traversing a coastal state's territorial sea could not be arrested for civil matters. The only derogations from this general rule indicated that arrest could take place if the obligations leading to the arrest resulted from the foreign vessel's voyage through the waters of the coastal state, and that the foreign ship could then be arrested in the coastal state's territorial sea provided that it was passing through the territorial sea after leaving the coastal state's inland waters.

When the International Law Commission (ILC) was entrusted with the task of preparing a draft Territorial Sea Convention for the 1958 Geneva Conference on the Law of the Sea, it was confronted with the obvious conflict between the 1930 Hague

Draft Convention and the 1952 Arrest Convention. The ILC had generally been using the 1930 Hague Draft as a model for its deliberations [36]. Initial discussions by the Commission indicated that they wished to draft their Convention so that it would be in conformity with the Arrest Convention [37]. This path was, however, rejected for two reasons. First, it was felt that summarizing the Arrest Convention would be misleading [38], and secondly, the 1952 Convention was not easy to reconcile with the interests of navigation [39].

The resolution of the issue by the Commission fell on the side of freedom of navigation. As a result, a stance similar to the one which had been expressed in Article 9 of the Hague Draft Convention was eventually adopted [40]. It is important to note, however, that one of the reasons for this decision by the ILC seemed to be the low level of ratification which the Arrest Convention had received at this point -- only three ratifications [41]. In any case, some members of the Commission felt that although they adopted a less coastal state interventionist stance, it "in no way prevented certain States from adopting other, more far-reaching, rules by means of an international convention, if they so desired" [42].

At the 1958 Geneva Conference the incompatibility of the ILC draft with the 1952 Arrest Convention again came to the fore. As McDougal and Burke put it, with characteristic understatement, the "deliberations of the 1958 Conference did not succeed in dispelling entirely the atmosphere of confusion surrounding the question of the extent of coastal civil jurisdiction" [43]. Some delegations still seemed to favor making the 1958 Convention compatible with the Arrest Convention [44], while others were clearly against it [45]. The resolution of this vexatious problem was proposed by Chairman Bailey of Australia who noted that there was no disagreement to a Dutch proposal [46] which would have clarified that the provisions of the Territorial Sea Convention would not prejudice the application of the Arrest Convention between the state's parties to that Convention because of the wording of Article 25 of the Territorial Sea Convention which stated:

> The provisions of this convention shall not affect conventions or other international agreements already in force, as between State's Parties to them.

To state that this solution was less than satisfying is an understatement. None of the recorded comments of the ILC drafting committees nor the deliberations of the First Committee showed any systematic attempt to consider all of the implications of balancing interests between private creditors and claimants in coastal states as against the need to protect the freedom of navigation. For example, there is no evidence that the decision of the American and Panamanian General Claims Arbitration in the case of The David [47] was even considered.

In that case, the David had collided with another vessel, the Yorba Linda. The owners of the Yorba Linda filed an in rem

action against the David before the United States District Court for the Canal Zone. The Yorba Linda's owners had earlier received judgment against the David in an uncontested action before a Panamanian court. Because of the nature of the service procedures within the Panamanian court, the judgment was not valid in the Canal Zone.

The David was arrested by a U.S. marshal in what was later determined by the Tribunal to be the territorial sea of the United States. The David gave a bond and was released the next day. The owners of the David claimed before the Arbitration Tribunal that the arrest of their ship was illegal and beyond the jurisdiction of the U.S. District Court, and that the illegal arrest and the resulting necessity of giving a bond and defending the suit in the Canal Zone forced the claimant into a settlement which it would not otherwise have made, "and inflicted damages upon it comprising not only the difference between the amount of the Panamanian judgment and the amount of the payment under the settlement agreement, but also the expenses of litigation ... resulting from the Canal Zone suit" [48].

The owners of the David asserted, inter alia, that since she had been engaged in innocent passage at the time of the arrest she should not have been arrested. The majority of the Arbitration Tribunal disagreed and stated:

> The general rule of the extension of sovereignty over the 3-mile zone is clearly established. Exceptions to the completeness of this sovereignty should be supported by clear authority. There is a clear preponderance of authority to the effect that this sovereignty is qualified by what is known as the right of innocent passage and that this qualification forbids the sovereign actually to prohibit the innocent passage of alien merchant vessels through its territorial waters. There is no clear preponderance of authority to the effect that such vessels when passing through territorial waters are exempt from civil arrest. In the absence of such authority, the Commission cannot say that a country may not, under the rules of international law, assert the right to arrest on civil process merchant ships passing through its territorial waters [49].

The dissenting Panamanian commissioner on the Tribunal relied on resolutions by the Institute of International Law, research in international law by Harvard Law School, and the Hague Codification Conference to support the proposition that international legal authority did not recognize the right of coastal states to arrest vessels engaged in innocent passage [50]. While this judgment has been criticized [51], it nevertheless shows that when one is colored primarily as a case involving commercial interests it is all too easy to subordinate public international legal norms such as the preservation of the

right of innocent passage. It is this tendency to subordinate which lead first the ILC, and then the participants on the First Committee at the 1958 Geneva Conference, to assume that it was possible to allow both Article 2 of the Arrest Convention and Article 21 of the ILC Draft, which ultimately became Article 20 of the Territorial Sea Convention, to stand separately, without resolving their inherent conflicts.

The Policy Considerations Behind Article 20

Forgetting for the moment the purported compromise developed between Articles 20 and 25 of the Territorial Sea Convention, Article 20 can nevertheless be said to take a strong position on promoting freedom of navigation. Its first paragraph is in conformity with the Arrest Convention and as such does not present any problems [52]. The second paragraph, however, differs considerably from both the Arrest Convention and the principles enunciated in the judgment in The David. It states that coastal states may not arrest a ship for civil matters unless the obligations or liabilities were incurred by that ship for the purpose of its voyage through the waters of the coastal state. Thus the liabilities must be: 1) incurred by the ship; and 2) incurred for the purpose of completing its voyage through the waters of the coastal state. It is this latter point which is in conflict with the Arrest Convention and The David judgment, as neither required that the maritime claims arise in the arresting state's waters. Finally, the third paragraph is again in conflict with the Arrest Convention and the judgment in The David, as it would seem to prevent a coastal state from arresting a vessel which is merely traversing its territorial sea. It only allows for the arrest of vessels in the territorial sea if they are lying there or if they are passing through upon leaving that coastal state's internal waters [53].

McDougal and Burke posit some recommendations for resolving the conflicts presented by the Arrest Convention as against the Territorial Sea Convention [54]. It is perhaps not too surprising that, being public international lawyers rather than admiralty lawyers and thus having no anxious creditors to placate, they favored the approach on arrest for civil matters taken by the Territorial Sea Convention. They suggested that states which wished to comply with both Conventions should: 1) ratify the Territorial Sea Convention and include a reservation that the Arrest Convention would be considered applicable to "vessels anchored in the territorial sea or passing through after leaving port" and 2) ratify the Arrest Convention and include a reservation that the Territorial Sea Convention be considered applicable to vessels merely passing through the territorial sea [55]. This set of actions would have the effect of: 1) preserving freedom of navigation for vessels merely traversing a coastal state's territorial sea; 2) allowing vessels to be arrested for civil claims only when in ports lying in the territorial sea or when traversing the territorial sea after leaving port [56]; and 3) limiting the number of claims

for which a vessel may be arrested while in the territorial sea to those claims which are enumerated in the Arrest Convention, thus limiting the potential interference in navigation for specious claims. Whether private creditors wishing to have their claims secured would accept the McDougal and Burke compromise is another matter.

While it is true that vessels are rarely arrested while in transit through a territorial sea, this is most likely due to the private creditor's ignorance of the ship's whereabouts. The advent of coastal-based traffic management centres [57] and vessel movement reporting systems [58] could alter this considerably. The ever-increasing regulation of ship movement for navigational safety and environmental protection is likely to lift the veil on vessels' whereabouts.

As well, the rationale for supporting the proposition that vessels should only be arrested in port is weakening. First, massive technological changes in cargo handling [59] have drastically reduced the time which ships spend in ports. This increases the likelihood that any arrest, even arrest in port, will have an adverse impact on a vessel's ability to trade. Second, with unloading systems such as LASH or mooring buoys with pipelines, ships may not have to enter ports at all. Third, with the advent of larger vessels, ships are increasingly likely to load, unload, and anchor at roadsteads which, while they are considered to be within the territorial sea, are often not within the internal waters of a coastal state [60]. Fourth, offshore oil and gas exploration and exploitation activities by foreign flag vessels or structures make arrest outside of ports more likely [61]. Finally, there is no indication that coastal states are either streamlining their rules regarding the release of arrested vessels or that they are making the arrest of foreign ships more difficult. If anything, the contrary is true with the advent and widespread use of interlocutory orders such as "Mareva" injunctions [62].

In all likelihood, therefore, more ships or mobile offshore structures will be arrested in territorial seas and beyond in the coming years than ever before. Canadian legislation, for example, already goes so far as to allow the arrest of vessels in rem in Canadian "territorial waters" and in all places "to which legislation enacted by the Parliament of Canada has been made applicable" [63]. This has prompted one prominent Canadian admiralty lawyer to state:

> Pursuant to these sections, a Marshal could, for instance, arrest an oil rig (ship) situated at any location off the East Coast to which Canadian legislation has been made applicable. Such an arrest would prevent the rig from moving [64].

While it is, of course, true that coastal states have a legitimately greater interest in regulating economic activities which occur off their coasts, which they do not have when interfering in the innocent passage of foreign ships, it is

likely that the distinction between some offshore activities and innocent passage will be blurred. As well, with states exploiting all forms of offshore resources more intensively, the intrusion of foreign vessels will likely result in more arrests.

UNCLOS III and the Civil Arrest of Vessels

Article 28 of the Law of the Sea Convention is virtually identical to Article 20 of the 1958 Territorial Sea Convention [65]. The various proposals advanced by states never addressed the conflict between the Arrest Convention and the provisions on civil arrest borrowed from the 1958 Territorial Sea Convention [66]. This inactivity can, at least partly, be attributed to the large number of important issues which captured the imagination of the delegations represented in the Second Committee. Much time had to be spent dealing with, inter alia, international straits, the exclusive economic zone, and the outer limits of the continental shelf. Against these monumental issues, the civil arrest of vessels traversing the territorial sea pales by comparison.

Unlike the Territorial Sea Convention, however, the LOS Convention does not have an equivalent to Article 25; in fact, the counterpart to Article 25 states:

> This Convention shall not alter the rights and obligations of States Parties which arise from other agreements compatible with the Convention and which do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under this Convention [67].

This would seem to imply that a ratification of the LOS Convention would have to be viewed as superceding those provisions of the Arrest Convention which are incompatible with its provisions. Since the LOS Convention elsewhere defines coastal states rights and flag state rights in far greater detail than do the 1958 Geneva Conventions, the regime for the civil arrest of foreign vessels adopted in the LOS Convention would appear to be determinative for ratifying states even if the issues were not adequately discussed. In this connection, it is interesting to note that more than 50 states, including the United Kingdom, France, the Federal Republic of Germany, and Greece, have ratified or acceded to the Arrest Convention [68]. On the other hand, 46 states, including the United States, the Soviet Union, the United Kingdom and Japan, have ratified or acceded to the Territorial Sea Convention [69]. Both Conventions, therefore, can be said to be heavily subscribed.

Should the LOS Convention receive a large number of ratifications, especially from the more than 50 states which have ratified or acceded to the Arrest Convention, then the uncertainty with regard to civil arrest for transiting vessels will be resolved. Such ratifications are unlikely and even if they were not, there is still a likelihood that the in rem arrest procedure of many coastal states would not be brought

into conformity to the LOS Convention. While strictly speaking this would be a violation of the Convention, there will probably be many such violations as states ratifying the Convention go through the arduous and painstaking task of bringing all of their national legislation in conformity to the Convention's provisions.

In the interim, however, the time is right for states to once again consider the subject of arrest. Appropriately enough, the CMI has convened a Conference for Lisbon in May 1985 to deal with the arrest of vessels as well as maritime liens and mortgages. This time, however, it is hoped that the participants will keep at the forefront of their thoughts the conflicts inherent between the wide powers of arrest for claimants in coastal states promoted by private maritime lawyers and the right of innocent passage promoted by public maritime lawyers. Such a conference would, for once, have to mix private and public maritime lawyers -- admittedly a potentially volatile combination. Then these issues could finally be aired rather than ignored as they have been by one group or the other over the past half century.

ARREST OF SHIPS FOR NON CIVIL MATTERS

Introduction

While there are many provisions in the LOS Convention which deal with arrest, this paper will touch on only a few: fisheries violations, the suppression of piracy, slave traffic, narcotics traffic, unauthorized broadcasting, and penal jurisdiction. The provisions with regard to arrest for pollution will not be dealt with here as they have already been adequately dealt with elsewhere [70].

Arrest for Fisheries Violations

The issues surrounding freedom of navigation as against coastal state competence over fisheries have been extensively covered by Burke [71]. He concludes that only "very limited authority to affect navigation should be recognized and then only in exceptional situations" [72]. He goes on to clarify that "[s]uch situations should probably be limited to instances of very large resource zones outside developing States with a special dependence on fisheries for economic development but without enforcement capability" [73]. As this paper, however, deals with arrest, attention will be limited to Article 73 of the LOS Convention [74]. No equivalent to it existed in the 1958 Convention on Fishing and Conservation of the Living Resources on the High Seas [75]. This no doubt stems from the fact that in 1958 a coastal state could not claim exclusive jurisdiction over the living resources beyond its territorial sea. Only the coastal state's "special interest in the maintenance of the productivity" of the living resources in high seas areas adjacent to its coasts was recognized [76].

Paragraph one of Article 73 allows the coastal state to board, inspect, arrest, and institute judicial proceedings to

ensure compliance with fishing regulations in the exclusive economic zone. These coastal state regulations must, of course, be in conformity with the provisions of the LOS Convention. As there was considerable discussion at UNCLOS III concerning these provisions, there will no doubt be some divergence in state interpretation and practice [77]. The second paragraph of Article 73 indicates that both the arrested crews and vessels must be promptly released upon the posting of a reasonable bond or security. What "prompt release" will be interpreted to mean is unclear, as is the notion of a "reasonable" bond or security. No doubt there will be some divergence in interpretation on these matters.

The third paragraph is particularly important as it states that in the absence of specific international agreements to the contrary, violations of fisheries laws in the EEZ may not include imprisonment or other forms of corporal punishment. There are undoubtedly many states which will have to alter their current legislation before it conforms with this provision [78]. Finally, as a safeguard, the fourth paragraph of Article 73 requires that the arresting coastal state "promptly" notify the flag state of any arrests, inspections or boardings undertaken. As well, information regarding the penalties imposed must also be passed along "promptly."

These provisions provide reasonable safeguards against arbitrary arrest and will probably work reasonably well with larger foreign fishing vessels. With artisanal fishing vessels, however, the procedures may prove to be very cumbersome and unrealistic. No doubt coastal states whose artisanal fishermen often cross boundaries will wish to consider special agreements to create more appropriate enforcement regulations.

Suppression of Piracy

While often considered to belong to the era of "iron men and wooden ships," piracy is still a problem in many areas. The tales of ship boardings in Southeast Asia and in particular in the Straits of Malacca, boardings off the coast of West Africa, and the theft of yachts for the drug trade in the Caribbean make the newspapers almost daily [79]. As piracy has been around as long as there have been criminals and ships, it is not surprising that the League of Nations Committee of Experts for the Hague Codifications Conference first considered the topic [80]. No provisions with regard to piracy were, however, included in the 1930 Hague Draft Convention as it dealt only with the Territorial Sea. From the perspective of international law, piracy can only take place in areas where coastal states do not exercise criminal jurisdiction. Piracy within a coastal state's territorial sea is a violation of the criminal laws of the coastal state rather than a violation of international law.

The 1958 High Seas Convention, however, dealt with piracy [81]. Article 14 of the High Seas Convention contained a general provision that all states were to cooperate to suppress piracy. Article 15 defined piracy and Article 19 authorized the seizure of pirate ships on the high seas. In particular,

Article 19 allowed states to seize all pirate ships or ships taken by pirates and arrest the persons and seize the property on board. It then allowed the courts of the flag of the arresting ship to decide on the penalties to be imposed and to determine the action to be taken with regard to the ships and the property aboard subject to the rights of legitimate third parties.

In order to protect against unwarranted coastal state interference in the freedom of navigation of ships, the High Seas Convention provided that: only ships in the government service could make the arrest [82], and seizures made without adequate grounds would make the seizing state liable for any loss or damage caused by the seizure [83]. If confronted with a vessel suspected of engaging in piracy, the coastal state's arresting vessel may send an officer to the suspected ship for the purpose of checking documents. If suspicion remains following the documentary inspection, then the coastal state's officer is authorized to board the ship for further examination. Again, should the suspicions prove to be unfounded, the boarded vessel is entitled to be compensated for any losses or damages sustained [84].

The LOS Convention's provisions with regard to arrest for piracy are a virtual carbon copy of the provisions of the High Seas Convention [85]. As in many other areas of arrest, no substantive changes were made. Although the High Seas Convention has been widely ratified [86], there is no real evidence that international piracy is less of a problem today than it was in 1958. One would therefore have to suspect that a similar level of effectiveness should be expected from the LOS Convention. With the advent of twelve-nautical-mile territorial seas and archipelagic states, more waters which in the past would have been high seas are now under coastal state control. Therefore, by definition, this will physically reduce the geographic area in which "high seas" piracy could take place, leaving therefore greater responsibility on coastal states to repress piracy. Whether developing coastal states will have the wherewithal to undertake this new responsibility is another more difficult question.

Suppression of Slave Transport, Narcotics Traffic, and Unauthorized Broadcasting from the High Seas

The High Seas Convention allowed government vessels the right of visit where a vessel was suspected of engaging in the slave trade [87]. The safeguards were identical to those incorporated into the Convention regarding the right of visit of ships engaged in piracy.

As slavery is universally condemned in international law [88], it is appropriate to take account again of this in a constitutive treaty such as the Law of the Sea Convention. It is, therefore, not surprising to find provisions which are virtually identical to the High Seas Convention in the LOS Convention [89].

Much like the slave trade, traffic in narcotics is universally condemned in international law [90]. To this end, the Territorial Seas Convention provided in Article 19(1)(d) for coastal state criminal jurisdiction for foreign ships passing through the territorial sea for the purposes of the suppression of illicit narcotic traffic. No rights were, however, granted to suppress narcotics traffic on the high seas. With the entry into force in 1964 of the widely accepted [91] Single Convention on Narcotic Drugs, 1961 [92], there was reason to incorporate the suppression of narcotics traffic at UNCLOS III. As a result of this widespread acceptance, it became appropriate to include a general statement against the illicit traffic in narcotic drugs or psychotropic substances in the Part VII of the LOS Convention dealing with the high seas [93]. No powers of visitation against foreign flag ships were granted, however, and in this respect the suppression of the narcotics trade differs from the suppression of piracy, the slave trade, and even unauthorized broadcasting. Owing to the widespread difficulties which the world community has in suppressing the narcotics trade, one wonders why such a policy choice should have been made. It is interesting to note the difficulties presented by these strictures and American attempts, through the Marijuana on the High Seas Act [94] to counteract these strictures [95]. In any case, criminal jurisdiction to suppress traffic in narcotic drugs on vessels passing through the territorial sea still exists in the same form as under the Territorial Sea Convention. Now, however, the suppression of psychotropic substances has been added to the list for the purposes of coastal state criminal jurisdiction [96].

Added to the list of activities which allow visitation and arrest on the high seas under the LOS Convention is unauthorized broadcasting from the high seas [97]. No such rights existed in the High Seas Convention. Now, any state where such broadcasts can be received or where they interfere with authorized radio communication may prosecute the unauthorized broadcasters before their courts. The rights of visitation and arrest are permitted in the same way with the same safeguards as for visitation and arrest for the purposes of suppressing piracy and slave trade.

Penal and Criminal Jurisdiction

The 1958 High Seas Convention adopted the rules developed in the CMI's International Convention for the Unification of Certain Rules Relating to Penal Jurisdiction in Matters of Collision or Other Incidents of Navigation [98]. This Convention came to the opposite conclusion reached by the P.C.I.J. in the much criticized decision in The Lotus. That is, now only: 1) the flag state of the ship on which the master or crew members served [99] or 2) the states in which they are nationals [100] may proceed in criminal actions against them for their role in causing a collision on the high seas or optionally, in the territorial seas of a contracting state [101].

The LOS Convention has adopted this same approach in Article 97. Therefore, there is complete uniformity between the High Seas Convention and the LOS Convention and, as well, there is virtual conformity with the CMI's Penal Convention.

With regard to criminal jurisdiction against persons on board vessels traversing a coastal state's territorial sea, the 1958 Territorial Sea Convention had substantially followed the 1930 Hague Draft Convention [102], the major addition to the Territorial Sea Convention being the granting of the right to coastal states to arrest ships passing through their territorial seas which are engaged in illicit narcotics trade. The LOS Convention has substantially followed the Territorial Sea Convention in this regard [103]. The only changes made from the Territorial Sea Convention to the LOS Convention were the granting of additional authority to the coastal state to suppress illicit traffic in psychotropic substances and to allow the arrest of a foreign ship engaged in innocent passage through the territorial sea if it has violated the coastal state's marine pollution regulations in the coastal state's exclusive economic zone [104].

Otherwise, the rules are the same, i.e., the coastal state may only arrest the vessel for criminal activities:

> (a) if the consequences of the crime extend to the coastal State;
> (b) if the crime is of a kind to disturb the peace of the country or the good order of the territorial sea; or
> (c) if the assistance of the local authorities has been requested by the master of the ship or by a diplomatic agent or consular officer of the flag State [105].

As well, the coastal state may arrest a vessel while passing through its territorial sea if it has just left the internal waters of the coastal state. To counterbalance these rights, the coastal state must have due regard for the interests of navigation. Presumably, therefore, the arrest of a ship for the purposes of arresting an individual who has committed a minor offence would be inappropriate.

Hot Pursuit

The provisions in the LOS Convention on hot pursuit [106] have their origins in the 1930 Hague Draft Convention [107] and the High Seas Convention [108]. The High Seas Convention elaborated on the provisions in the Hague Draft Convention. There are very few substantive changes to the doctrine of hot pursuit as between the High Seas Convention and the LOS Convention which do not involve applying hot pursuit to violations which occur within the exclusive economic zone or on the continental shelf of the coastal state [109]. The additional rights which coastal states now exercise in the offshore give them the right to regulate vessel traffic for

certain functional purposes. These rights are protected by the LOS Convention, *inter alia*, by allowing the right of hot pursuit to be used in enforcing these rights. This geographic expansion of the doctrine of hot pursuit is, of course, of considerable importance.

CONCLUSION

As can be seen, very little original thought took place at UNCLOS III regarding the arrest of vessels. This is unfortunate, as with expanded coastal state activities in the offshore being the order of the day, we should expect that transiting vessels will increasingly come into conflict with coastal state activities in the offshore. Although the LOS Convention in many ways balances the rights of ships to freely navigate with the coastal state's rights to exploit and manage its offshore, there are bound to be differences in the interpretation of the balance of these rights. As many of the differences of opinion are likely to manifest themselves in arrest, in retrospect more thought should have been addressed to the issue.

As well, at least in the area of civil arrest and in some areas of criminal arrest, there is a gap in the perceptions about arrest between private and public international lawyers. This gap has not been adequately dealt with by either the 1958 Geneva Convention or the LOS Convention and will likely be a source of friction. In the short term, it is hoped that the delegates to the CMI Conference in Lisbon in May 1985 consider public international legal norms presented in the 1982 Law of the Sea Convention like innocent passage when they draft a new arrest convention.

Perhaps it has been unrealistic from the start to assume that any broad-based set of rules on the law of the sea could deal at the same time with arrest procedures. It may well be time to separate arrest procedures from basic international norms concerning navigation rights versus coastal state rights. In separating the issues, it may ultimately be easier to reconcile them. While UNCLOS III has admirably balanced the basic international norms, it has sacrificed the procedural elements. As any student of law knows, there are times when form equals substance and when the lack of procedure can lead to an abuse of basic norms.

NOTES

1. The Case of the S.S. "Lotus" P.C.I.J. Ser. A, No. 10 (1927) at 10-11. Hereinafter referred to as *The Lotus*.
2. *Id.* at 19.
3. OPPENHEIM, I INTERNATIONAL LAW ed. H. Lauterpacht 8th ed. (1955) at 61-62.

4. The Report of the Second Committee is reprinted in 24 AM. J. INT'L L. (1930) Supp. 234-581.
5. Articles 3-5.
6. Article 6.
7. Article 7.
8. Article 8.
9. Article 9.
10. Article 10.
11. Article 11.
12. Articles 12 and 13.
13. Supra note 4, at 234.
14. Id.
15. See Resolution Concerning the Continuation of the Work of Codification on the Subject of Territorial Waters in Id., at 257-58.
16. International Convention for the Unification of Certain Rules of Law with respect to Collision between Vessels, signed at Brussels, 23 September 1910, reprinted in N. SINGH, 4 INTERNATIONAL MARITIME LAW CONVENTIONS (1983) at 2953.
17. Convention for the Unification of Certain Rules of Law relating to Assistance and Salvage at Sea, signed at Brussels, 23 September 1910 reprinted in SINGH, supra note 16, at 3084.
18. International Convention for the Unification of Certain Rules relating to the Limitation of Liability of Owners of Seagoing Vessels, signed at Brussels, August 25, 1924, reprinted in SINGH, supra note 16 at 2959.
19. International Convention for the Unification of Certain Rules of Law relating to Bills of Lading, signed at Brussels, 25 August 1924, reprinted in SINGH, supra note 16, at 3037.
20. International Convention for the Unification of Certain Rules of Law relating to the Maritime Liens and Mortgages, signed at Brussels, 10 April 1926, reprinted in SINGH, supra note 16, at 3053.
21. International Convention for the Unification of Certain Rules concerning the Immunity of State-owned Ships, signed at Brussels, 10 April 1926, reprinted in SINGH, supra note 16, at 3096.
22. See Articles 1-3.
23. Article 3.
24. The signatories included: Germany, Belgium, Brazil, Chile, Denmark, Spain, Estonia, France, Great Britain, Hungary, Italy, Mexico, Norway, the Netherlands, Poland, Portugal, Romania, Sweden and Yugoslavia. SINGH, supra note 16, at 3099.
25. These included: Germany, Belgium, Brazil, Chile, Denmark, Estonia, Greece, Hungary, Italy and colonies, Norway, the Netherlands, Curacao, Netherlands Indies and Surinam, Poland, Portugal, Romania and Sweden. It should be noted however that Poland and Romania denounced the treaty on 17 March 1952 and September, 1959, respectively. SINGH, supra

note 16, at 3100. These actions were no doubt taken so as to ensure bloc solidarity once they adopted state-owned economies.

26. McDougal and Burke in their classic THE PUBLIC ORDER OF THE OCEANS (1962) suggest at 150 that state practice seemed to confirm the authoritativeness of the 1926 convention. They cite SUCHARITKUL, STATE IMMUNITIES AND TRADING ACTIVITIES IN INTERNATIONAL LAW (1959) at 100 to support this proposition.

27. International Convention for the Unification of Certain Rules relating to the Arrest of Sea-Going Ships, signed at Brussels 10 May 1952, reprinted in SINGH, supra note 16, at 3101. Hereinafter cited as the Arrest Convention.

28. Emphasis Added. Note that a maritime claim is defined in Article 1 of the Convention as:
    (a) damage caused by any ship either in collision or otherwise;
    (b) loss of life or personal injury caused by any ship or occurring in connection with the operation of any ship;
    (c) salvage;
    (d) agreement relating to the use or hire of any ship whether by charterparty or otherwise;
    (e) agreement relating to the carriage of goods in any ship whether by charterparty or otherwise;
    (f) loss or damage to goods including baggage carried in any ship;
    (g) general average;
    (h) bottomry;
    (i) towage;
    (j) pilotage;
    (k) goods or materials wherever supplied to a ship for her operation or maintenance;
    (l) construction, repair or equipment of any ship or dock charges and dues;
    (m) wages of Masters, Officers or crew;
    (n) Master's disbursements, including disbursements made by shippers, charterers or agents on behalf of a ship or her owner;
    (o) disputes as to the title to or ownership of any ship;
    (p) disputes between co-owners of any ship as to the ownership, possession employment or earnings of that ship;
    (q) the mortgage or hypothecation of any ship.

    The Arrest Convention by enumerating the types of maritime claims necessarily limited them.

29. Comit Maritime International, Bulletin No. 105, Naples Conference, 1951 (1952) at 1-10 (J.T. Asser and Cyril Miller acting as Rapporteurs).

30. British Maritime Law Association "Memorandum upon Jurisdiction of English Admiralty Court in Comit Maritime International, supra note 29, at 34.

31. Supra note 28.

32. Article 3(1) states:

> A claimant may arrest either the particular ship in respect of which the maritime claim arose, or any other ship which is owned by the person who was, at the time when the maritime claim arose, the owner of the particular ship, even though the ship arrested be ready to sail; but no ship, other than the particular ship in respect of which the claim arose, may be arrested in respect of any of the maritime claims enumerated in Article 1(1) (o), (p) or (q).

33. Article 6 states:

> All questions whether in any case the claimant is liable in damages for the arrest of a ship or for the cost of the bail or other security furnished to release or prevent the arrest of a ship, shall be determined by the law of the Contracting State in whose jurisdiction the arrest was made or applied for.
>
> The rules of procedure relating to the arrest of a ship, to the application for obtaining the authority referred to in Article 4, and to all matters of procedure which the arrest may entail shall be governed by the law of the Contracting State in which the arrest was made or applied for.

34. Convention on the Territorial Sea and the Contiguous Zone, adopted by the United Nations Conference on the Law of the Sea, April 29, 1958 (U.N. Doc. A/CONF.13/L.52). Hereinafter cited as the Territorial Sea Convention.
35. Report of the Second Committee, supra note 4, at 244-45.
36. McDougal and Burke, supra note 26, at 277.
37. I Y.B. of the INT'L L. COMM.-1954, at 157, see esp. paras. 26, 27, 30, 32 and 33.
38. I Y.B. of the INT'L L. COMM.-1955, at 257, see esp. paras. 14 and 16.
39. Id. at 257, paras. 18 and 22 and 258, para. 27.
40. I Y.B. of the INT'L L. COMM.-1956, at 208, paras. 26, 69 and 70; and esp. 209 and 289 para. 15. It is important to note that the British Delegation seemed to reject this trend toward stressing the freedom of navigation at the expense of the right to arrest for maritime claims, Id. 208, paras. 72 and 73.
41. Id. at 208, para. 71 and 285, paras. 22 and 23.
42. I Y.B. of the INT'L L. COMM.-1956, at 285, paras. 22 and 23.
43. Supra note 26 at 278.
44. See especially the statements of the British, Dutch and the Philippine delegations at 3 UNITED NATIONS CONFERENCES ON THE LAW OF THE SEA: OFFICIAL RECORDS (1958) (A/CONF.13/39) at 120, and 16 and 123, para. 15 respectively.

45. See especially the statements, inter alia, of the Chilean, Norwegian, American and Israeli delegations at Id. p. 123-24, paras. 16, 17, 18, and 20 respectively.
46. Document A/CONF.13/C.1/L.51 which proposed the addition of:

> The provisions of ... [the relevant paragraphs] ... do not prejudice the application of the Brussels Convention of 10 May 1952 for the Unification of Certain Rules relating to the Arrest of Sea-going Ships, as between the States parties to that convention.

to Article 21 (later Article 20) of the Territorial Sea Convention.
47. Compania de Navegacion Nacional (Panama) v. United States 6 REP. of INT'L ARB. AWARDS (1933) 382-86.
48. Id. at 383.
49. Id. at 384
50. Id. at 386
51. P. Jessup, "Civil Jurisdiction over Ships in Innocent Passage," 27 AM. J. INT'L L. 747 at 750 (1933). McDOUGAL and BURKE, supra note 26 at 276-77.
52. Article 20 states:

> 1. The coastal State should not stop or divert a foreign ship passing through the territorial sea for the purpose of exercising civil jurisdiction in relation to a person on board the ship.
> 2. The coastal State may not levy execution against or arrest the ship for the purpose of any civil proceedings, save only in respect of obligations or liabilities assumed or incurred by the ship itself in the course or for the purpose of its voyage through the waters of the coastal State.
> 3. The provisions of the previous paragraph are without prejudice to the right of the coastal State, in accordance with its laws, to levy execution against or to arrest, for the purpose of any civil proceedings, a foreign ship lying in the territorial sea, or passing through the territorial sea after leaving internal waters.

53. The Arrest Convention also does not allow a foreign ship to be arrested merely for the purpose of exercising civil jurisdiction against a person on board. The maritime claims enumerated in the Arrest Convention may only be used as a basis for arrest if the claim is against the vessel as a whole rather than any individuals who happen to be on board the vessel.

It should further be pointed out that during the course of the 1958 Conference the wording of Article 21(1) (later 20(1)) was altered from a "coastal State may not arrest or divert" to a "coastal State should not arrest or

divert". [Emphasis added]. For a discussion of the effect of this change see L. Lee, "Jurisdiction over Foreign Merchant Ships in the Territorial Sea: An Analysis of the Geneva Convention on the Law of the Sea," 55 AM. J. INT'L L. (1961) 77 at 83-86. Cf. McDOUGAL and BURKE, supra note 26 at 279-280.

54. McDOUGAL and BURKE, supra note 26, at 281-282.

55. Id. at 282.

56. McDougal and Burke state that, as a matter of practice, virtually no arrests are ever made when a vessel is merely traversing a state's territorial sea, thus this solution would not unduly take away from the power of a private creditor to secure his claim. They cite Sir Gerald Fitzmaurice of the U.K. delegation at the Territorial Sea Conference as stating that: "His technical advisors had informed him that there had never been a case of a foreign ship being arrested during continuous passage through the territorial sea." Id. Apparently, the advisers to the U.K. delegation had uncovered neither the reports of the David nor the decision of the Supreme Court of Canada in The Ship "D.C. Whitney" v. The St. Clair Navigation Co. and the Southern Coal and Transportation Co. 38 S.C.R. 303. It is, however, likely that such arrests are few and far between.

57. Canada, for example, has vessel traffic management centres in place for much of its eastern seaboard territorial sea. See TRANSPORT CANADA, VESSEL TRAFFIC MANAGEMENT SYSTEMS; A. Provan and W. Stuart "The Eastern Approaches: Canada's Traffic System," Canadian Shipping and Marine Engineering News, March 1979, 16-18. The European Economic Community is also developing a vessel traffic management system.

58. Canada, for example, has a vessel movement reporting system in place named ECAREG for Eastern Canada Traffic Zone, SOR/78-669, 22 August 1978.

59. Consider for example the changes in the last twenty years in containerization, ro-ro, and LASH to name but a few.

60. See Article 9 of the 1958 Territorial Sea Convention and Article 12 of the 1982 Law of the Sea Convention, (A/CONF. 62/122 7 October 1982). Hereinafter cited as the LOS Convention.

61. While it may be true that most oil rigs would not be protected from arrest under Article 20 of the 1958 Territorial Sea Convention, in the sense that they are not simply engaged in transiting the coastal states' territorial sea, it would be possible to question whether or not supply vessels going to a rig are engaged in innocent passage. The 1958 Convention do not seem to cover such eventualities.

62. In this regard see, for example: Gapes, Robert, "The Development of the Mareva Injunction" 4 AUCKLAND U. L. REV. 170-181 (1981); Charity, David E. "'Mareva' Injuctions: A Lesson in Judicial Acrobatics." 12 J. MARIT. L. & COMM. 349-62 (1981); and Moisel, Frank, "The Mareva Injunction -- Recent Developments," L.M.C.L.Q. 38-46 (1980).

63. S. 55(1) of the Federal Court Act, R.S.C., 1970, c. 10 (2nd Supp). Moreover, s.55(4) of the Federal Court Act states, in part:

> A sheriff or marshall shall execute the process of the Court that is directed to him whether or not it requires him to set outside his geographical jurisdiction....

64. W. SPICER, CANADIAN MARITIME LAW AND THE OFFSHORE: A PRIMER, 1984, 22. Spicer cites as examples of applicable legislation: s.4(2) of the Territorial Sea and Fishing Zones Act, R.S.C., 1970, c. T-7; and s.255 of the Income Tax Act, R.S.C. 1952, c.148. Id. at 23.
65. The words: "The provisions of the previous paragraph" in Article 20(3) of the 1958 Convention have merely been replaced by "Paragraph 2." Paragraphs (1) and (2) of Article 20 are identical with paragraphs (1) and (2) of Article 28 in the LOS Convention, supra note 60.
66. A/CONF.62/C.2/L.3 United Kingdom draft articles on the territorial sea and straits; A/CONF.62/C.2/L.16 Malaysia, Morocco, Quam and Yenen, draft articles on navigation through the territorial sea, including straits used for international navigation; A/CONF.62/C.2/L.19 Fiji: draft articles relating to passage through the territorial sea. These were all virtually identical to Article 20 of the 1958 Convention. Only A/CONF.62/C.2/L.26 Bulgaria, German Democratic Republic, Poland, USSR: draft articles on the territorial sea differed in that a fourth paragraph was to be added:

> Government ships operated for commercial purposes in foreign territorial waters shall enjoy immunity, and therefore the measures referred to in this article may be applied to them only with the consent of the State whose flag the ship flies.

This addition, of course, is in conformity with the general Eastern Bloc position that government-owned ships are entitled to absolute immunity regardless of whether they are engaged in commercial purposes or not.

67. Emphasis added. Article 311(2).
68. As of January 1, 1981. SINGH, supra note 16, at 3106-07.
69. UNITED NATIONS, MULTILATERAL TREATIES DEPOSITED WITH THE SECRETARY-GENERAL: STATUS AS AT 31 December 1981 (1982) 587.
70. See, for example: D. ABECASSIS, THE LAW AND PRACTICE RELATING TO OIL POLLUTION FROM SHIPS (1978); P. Bernhardt "A Schematic Analysis of Vessel-Source Pollution: Prescriptive and Enforcement Regimes in the Law of the Sea Conference," 20 VIRGINIA J. INT'L L. (1980) 265-311; I. Booth "International Ships Pollution Law: Recent

Developments at UNCLOS" 4 MARINE POLICY 215-228 (1980); N. Hashimoto, "Marine Pollution: Surveillance and Regulatory Control and Guidance Toward Prevention" in NEW TRENDS IN MARITIME NAVIGATION (1980), Proceedings of the 4th International Ocean Symposium-1979, 44-45; R. M'GONIGLE and M. ZACHER, POLLUTION, POLITICS AND INTERNATIONAL LAW: TANKERS AT SEA (1979); S. Meese "When Jurisdictional Interests Collide: International, Domestic and State Efforts to Prevent Vessel Source Oil Pollution" 12 OCEAN DEVP'T & INT'L L. (1982) 71-139; J. Moore "Protection of Navigational Freedom and the Problem of Vessel Source Pollution" in NEW TRENDS IN MARITIME NAVIGATION (1980), Proceedings of the 4th International Ocean Symposium-1979, 39-42; T. Okuhara, "The New Law of the Sea and Prevention of Pollution by Vessels" in Id. at 36-39; T. Saito "Vessel-Caused Marine Pollution" in Id. at 42-44; J. Schneider, "Prevention and Control of Marine Pollution: Pollution from Vessels," in D. Johnston (ed.) THE ENVIRONMENTAL LAW OF THE SEA (1981) 203-217; J. SCHNEIDER, WORLD PUBLIC ORDER OF THE ENVIRONMENT (1979); AND McDORMAN et al., THE MARINE ENVIRONMENT AND THE CARACAS CONVENTION ON THE LAW OF THE SEA (1981) 30-35.

71. W. Burke "Exclusive Fisheries Zones and Freedom of Navigation" 20 SAN DIEGO L. REV. 595-623.

72. Id. at 623.

73. Id. Inter alia, Burke considers such restrictions on navigation as:

    1. the application of territorial sea authority to fishing vessels passing through the exclusive fishing or economic zone;
    2. the prohibition of entry by unlicensed fishing vessels into the EEZ or EFZ unless specifically authorized;
    3. requiring the use of prescribed sealanes by transiting fishing vessels;
    4. requiring report of entry and exit together with route used;
    5. the stowage of fishing gear during passage;
    6. the requirement for carriage and use of transpowders during passage; and
    7. the use of international agreement to determine protective measures.

    He cogently argues the pros and cons of each method.

74. Article 73 entitled: "Enforcement of laws and regulations of the coastal State" states:

    1. The coastal State may, in the exercise of its sovereign rights to explore, exploit, conserve and manage the living resources in the exclusive economic zone, take such measures, including boarding, inspection, arrest and judicial

proceedings, as may be necessary to ensure compliance with the laws and regulations adopted by it in conformity with this Convention.

2. Arrested vessels and their crews shall be promptly released upon the posting of reasonable bond or other security.
3. Coastal State penalties for violations of fisheries laws and regulations in the exclusive economic zone may not include imprisonment, in the absence of agreements to the contrary by the States concerned, or any other form of corporal punishment.
4. In cases of arrest or detention of foreign vessels the coastal State shall promptly notify the flag State, through appropriate channels, of the action taken and of any penalties subsequently imposed.

75. Adopted by the United Nations Conference on the Law of the Sea, April 28, 1958 (U.N.Doc. A/CONF.13/L.54). Hereinafter cited as the Fishing Convention.
76. Article 6(1).
77. For accounts of the fisheries provisions see, Inter alia: C. Hudson "Fishery and Economic Zones as Customary International Law," 17 SAN DIEGO L. REV. (1980) 661-689; R. Khan "Some Reflections on the Legal Implications of Extensions of Exclusive Fishery Zones" 21 INDIAN J. INT'L L. (1981) 534-545; S. Mohan "Fisheries Jurisdiction" in R. Anand, ed., LAW OF THE SEA: CARACAS AND BEYOND (1980) 223-252; Moore, G. LEGISLATION ON COASTAL STATE REQUIREMENTS FOR FOREIGN FISHING FLEETS (1981) (FAO); S. Rosenne "Settlement of Fisheries Disputes in the Exclusive Economic Zone" 73 AM. J. INT'L L. (1979) 89-104; UNITED STATES, CENTRAL INTELLIGENCE AGENCY, NATIONAL FOREIGN ASSESSMENT CENTER, THE NEW GLOBAL FISHING REGIME: IMPACT AND RESPONSE, (1980); R. Anand, The Politics of a New Legal Order for Fisheries", 11 OCEAN DEVP'T & INT'L L. (1982) 265-295; and F. Mirvanabi "Fishery Disputes Settlements and the Third United Nations Conference on the Law of the Sea", 57 REVUE de DROIT INTERNATIONAL, de SCIENCES DIPLOMATIQUES, et POLITIQUES (1979) 45-58.
78. In an international seminar held in Basseterre in St. Kitts in June 1983, a number of Chief Fisheries Officers from the small island states of the region indicated a great reluctance to eliminate the power of arrest and imprisonment of foreign fishermen. This may be a particularly difficult problem where the foreign fishermen are artisanal fishermen with few assets to be attached. The proceedings of this conference will be published shortly by The Dalhousie Ocean Studies Programme under a grant from the Canadian International Development Agency.
79. A. Weiner, "Piracy: The Current Crime" [1979] 4 LMCLQ 469 at 470-471.

80. League of Nations Documents, reprinted in 20 AM. J. INT'L L. (1926) Sup. 223.
81. Convention on the High Seas adopted by United Nations Conference on the Law of the Sea, 29 April 1958 (U.N.Doc. A/CONF.13/L.53). Hereinafter cited as The High Seas Convention.
Piracy is defined as:

> 1. Any illegal acts of violence, detention or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed:
>
> (a) On the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft;
> (b) Against a ship, aircraft, persons or property in a place outside the jurisdiction of any State;
>
> 2. Any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft;
> 3. Any act of inciting or of intentionally facilitating an act described in sub-paragraph 1 or sub-paragraph 2 of this article.

82. Article 21.
83. Article 20.
84. Article 22(2) and (3).
85. Articles 14, 15, 16, 17, 18, 19, 20, 21 and 22 of the High Seas Convention have become Articles 100, 101, 102, 103, 104, 105, 106, 107 and 110 respectively of the LOS Convention.
86. The High Seas Convention has been ratified or acceded to by 57 states. UNITED NATIONS, supra note 69, at 594.
87. Article 22.
88. McDOUGAL and BURKE, supra note 26, at 879.
89. Cf. Articles 13 and 22 of the High Seas Convention with Articles 99 and 110 of the LOS Convention. Their meanings are for all intents and purposes identical.
90. I. Waddell, "International Narcotics Control", 64 AM J. INT'L L> (1970) 310-323. Work on the suppression of the narcotics trade started in 1909 and the first convention against the narcotics trade was started in 1912. Id. at 311-12. Waddell states that there is a striking resemblence between the early movements to control the slave trade and the narcotics trade. Id.
91. 113 states ratified or acceded to the Single Convention as of 31 December 1981. UNITED NATIONS, supra note 69, at 206-07.
92. 520 U.N.T.S. 151.
93. Article 108.

94. 21 U.S.C. 955a (Supp. IV 1980).
95. S. Lewis "The Marijuana on the High Seas Act: Extending U.S. Jurisdiction Beyond International Limits" 8 YALE J. WORLD PUBLIC ORDER (1982) 325. See also Note, "High on the Seas: Drug Smuggling, the Fourth Amendment, and Warrantless Searches at Sea", 93 HARV. L. REV. (1980) 725.
96. See Article 27 (1)(d) of the LOS Convention.
97. Article 109. Unauthorized broadcasting is defined as "the transmission of sound radio or television broadcasts from a ship or installation on the high seas intended for reception by the general public contrary to international regulations, but excluding distress calls." Article 109(2) of the LOS Convention.
98. Adopted in Brussels, 10 May 1952, reprinted in SINGH, supra note 16, at 3111-3113. Hereinafter cited as the Penal Convention.
99. Article 1 of the Penal Convention.
100. Article 3 of the Penal Convention.
101. Under Article 4, the contracting states had the option of preserving such panel jurisdiction for themselves in their territorial seas.
102. Article 8, supra note 4 at 243.
103. Article 27 of the LOS Convention.
104. Article 27(5). See also Articles 220 and 56 of the LOS Convention.
105. Article 27(1) of the LOS Convention.
106. Article 111 of the LOS Convention.
107. Article 11 of the 1930 Hague Draft Convention.
108. Article 23 of the High Seas Convention.
109. See esp. Article 111(2) of the LOS Convention.

JACK GARVEY: As I indicated earlier, we have changed the format from the prior sessions. We're going to hear now from David Larson and from Gordon Becker, who will alternately address questions to each of the prior speakers. Then Professor Letalik's talk will draw questions from the audience, especially from the maritime lawyers that may be among us for this special session. Mr. Becker.

GORDON BECKER: Thank you, Mr. Chairman. I can't help thinking before I ask my first question how fortunate we all are on this lovely afternoon to be engaged in this exciting voyage of the Good Ship Law of the Sea Convention Adventurer, with our three intrepid master-mariners at the helm: Professors Letalik and Burke, plus Admiral Harlow. Certainly we're in good hands. Now I would like to train my sights on my friend Bill Burke and ask a cluster of questions which I know he will find easy to answer. I would appreciate your giving us your views on a statement made by Professor Riesenfeld some two years ago at a seminar at Duke University wherein he was discussing what was then the Draft Convention which later became what we call the Law of the Sea Convention. Professor Riesenfeld said this: "Thus the glorious freedom of the high seas has been severely restricted by juridical encroachment. Article 87 of the Draft Convention makes this abundantly clear. The freedom of the high seas may be exercised only under conditions laid down by this Convention." And Professor Riesenfeld goes on to say about that Article -- "Of the six enumerated aspects of the freedom, called the freedoms, solely navigation and overflight are not further qualified by specific references to other parts of the Convention."

Beginning with that statement, Professor Riesenfeld went on to discuss such parts of the Convention as the deep seabed provisions and the exclusive economic zone provisions. So I would like to ask as my first question: what are your views on that statement, particularly in light of your satisfaction with the navigational provisions of the Convention? Do you foresee, for example, continuing problems about reconciliation of EEZ rights and obligations and navigational rights and obligations? And if your answer is yes, do you think that these problems will be more serious for non-parties to the treaty than for parties? I wonder also if in answering this question you would tell us whether you think that Article 300 of the Convention, which forbids states parties to the Law of the Sea Treaty from abusing their rights in enforcing the Convention, will be a factor in helping resolve, say, disputes in the EEZ?

WILLIAM BURKE: With respect to the first question about freedom of the high seas, it seems to me that the creation of extended coastal state jurisdiction for resource purposes has obliterated freedom of fishing in the area where 90 to 95

percent of world fishery catches are taken, so there is no longer a significant freedom, with the exception of those areas falling outside. And perhaps for non-controversial species later the area outside 200 nautical miles will be meaningful, but that is a severe restriction.

The same can be said for scientific research. Scientific research now is totally subject to coastal state control, cannot be conducted without the consent of the coastal state, and, I believe, does now and will in the future face restrictions of various kinds. And that is a drastic change from the prior situation. In my opinion this is a very undesirable and counterproductive change in contrast to, for example, fishing, where at least the opportunity exists to change from international common property to national common property with allowance for some foreign access when it serves coastal interests. The introduction of appropriate fishery management could lead to more benefits gained from fisheries than under the prior regime which required general agreement before fishery management measures could be introduced in a specific situation involving more than one state.

With respect to navigation and overflight, it seems to me that the treaty is generally satisfactory. I thought the negotiations coped well with the potential effects of extended jurisdiction and with the protection of navigation in the exclusive economic zone. The latter was a very difficult problem, and I'm not sure it has been worked out. I think it will have to be worked out over time in implementation of the agreement. This will cause difficulties because there will be new uses, new methods, or new techniques for dealing with threats to the marine environment; such threats may increase or new threats may arise that could require some interference with navigation.

Also in connection with resource jurisdiction, particularly in the case of fisheries, navigation may be affected. In all of those instances I would argue for a very strong weight on navigation rights. I would attempt to limit the occasions for any interference with navigation because the interest in navigation is universal. There are fairly restricted circumstances in which coastal states need to protect their rights by regulating navigation.

With respect to continuing problems of reconciling EEZ rights and obligations with navigation rights and obligations, non-parties may have some difficulty in getting access to dispute-settlement procedures available under the treaty for disputes over interferences with navigation. I happen to agree with Bruce Harlow that it would be highly desirable to take the treaty arrangements as the appropriate legal principle without arguing about customary law. I think that's probably not possible, but it would sure be desirable. The United States may face some difficulties, because of its non-party status, in raising questions about interference with navigation. I believe that as a non-party we may find it more difficult to object to what others do in interpreting the treaty and that may well be

to our disadvantage. I think that is one of the problems that we will face because of the position we've taken on the treaty.

With respect to the Article 300 abuse of rights, I don't know how helpful that will be because I don't think there will be an overwhelming number of problems that arise out of adjustments. There will be specific difficulties from time to time but the utility for everybody in implementing the arrangements that were so carefully negotiated is fairly obvious. Even if the United States is regarded as recalcitrant, over time that may diminish as a factor. I would think it would. In a sense the U.S. is in a no-lose position because practice may very well be consistent with the treaty and distinctions based on party and non-party will be irrelevant. It just simply won't be effective to invoke such a distinction. And therefore the occasion for invoking abuse of rights would be minimal.

GORDON BECKER: Thank you.

DAVID LARSON: I should say I'm not a maritime lawyer although I had a tour of duty at the Naval War College as a visiting professor and got indoctrinated there by Admiral Harlow's friends. I agree with Bill Burke's fundamental premise, "From a U.S. perspective the problem with the treaty and the straits is the weakness of the American argument that the treaty now expresses customary law on which it is safe to rely for assurance of secure navigational routes and straits." That seems to me to be the central issue and I would just focus on it for a moment. I think that military transit passage through straits and innocent passage through territorial seas may be enforced on the basis of customary international law as expressed in the Corfu Channel case of 1949 and the 1958 Convention on the Territorial Seas largely because, as Admiral Harlow suggested, the U.S. Navy has the power to do so as it manifested in the Gulf of Sidra incident a few years ago off Libya. However, even such an enforcement of asserted rights under customary international law, I think, is open to question in the very simple practical sense that the development of new modern missiles, such as the Exocet, which were used so successfully in the Falklands war, have now been acquired by a number of coastal and straits states, thus making military surface vessels clearly much more vulnerable than they were in 1946 when the British forced their way a second time through the Corfu Channel. Also customary international law -- and I'm coupling this with what Admiral Harlow said -- has developed through centuries of state practice and did not really contemplate the modern SSBN or strategic ballistic missile submarine which really only became operational in about 1960. Article 39 1 (c) refers clearly to their transit passage in normal modes of continuous and expeditious transit, which I think is an explicit recognition in the 1982 UNCLOS Convention of the need for the safety and security of these SSBN. Without that protection afforded by this new regime of transit passage,

SSBN would have to rely upon the old regime as set forth in 1958, as Admiral Harlow well indicated, of surfacing and showing the flag. However, it may be from a strategic standpoint that the U.S. Navy has shifted its strategy and deployment of SSBN with the advent of the Ohio class SSBN and the Trident II missile; it may no longer be necessary or desirable to deploy these SSBN near the Eurasian land mass. This obviates the necessity of transit passage through international straits, because the reported range of the Trident II missile is now somewhere between 6000 and 8000 nautical miles. This means that these SSBN can deploy in the South Atlantic, South Pacific, or South Indian Ocean and still be able to target much of the Eurasian land mass.

However, I think that the military of all nations, including the United States, has shown an incredible ingenuity to adapt and be flexible to changing circumstances and, as indicated, they usually can take care of themselves. It seems to me, though, that the real problem is on the safety and security or the passage of commercial vessels through such narrow straits as Hormuz, Malacca, Sunda, Bab el Mandeb, as well as the English Channel. The recent attacks on tankers in the Persian Gulf, underwater explosions in the Red Sea, the collision and sinking of the Mont Louis at the eastern end of the English Channel -- all of these recent events tend to highlight these continuing difficult problems of surface navigation for commercial vessels. Essentially in agreement with Bill Burke, I feel uneasy and uncomfortable that the United States relies for the safety and security of its commercial vessels upon customary international law which may not be adequate to meet the needs or the requirements of modern navigation. And so I'd stop at that in regard to both Burke's and Admiral Harlow's paper.

GORDON BECKER: Admiral Harlow, you devoted your talk primarily to a defense of your position that the right of transit passage is indeed customary international law. If I understand your argument, it goes something like this. In the past, when the territorial sea was typically three nautical miles, many straits used for international navigation had a high-seas corridor. Accordingly, there was no question about stopping vessels using the high-seas corridor and no question of innocent passage was involved in such transit. I think you'd probably say also that vessels using that high-seas corridor were in effect using what today would be known as transit passage. And then I think you argue that despite the expansion of the territorial sea, or rather the right of a coastal state to expand its territorial sea from three to twelve nautical miles, we can assume that a right which is the equivalent of that former high-seas corridor right still exists through that strait and accordingly is customary international law. In other words, it seems to me that what you do in your argument is transpose a right which in the past, at the time of the three-mile territorial sea, was a high-seas right, into the expanded territorial sea created under

the Law of the Sea Convention -- a change not of substance but rather of form, putting a new name on an old right. I have to say that I don't find this a very convincing argument. I also am troubled, in trying to accept your argument, by other provisions of the transit passage provisions, such as Article 38 and Article 45. Article 45 deals with the regime of non-suspendable innocent passage through certain international straits where transit passage is not applicable. It seems to me that there is a parallelism in the provisions I've mentioned, under which the right of nonsuspendable innocent passage which comes from the 1958 Convention is stated, and what looks like the statement of a completely new right of transit passage with a new name through other territorial seas, a right not articulated in the 1958 Convention. I suggest to you that this parallelism tends to defeat your argument. What do you think about that?

BRUCE HARLOW: David Larson mentioned that perhaps there would be a practical problem in asserting any right of transit passage in the current situation because coastal states now have a destructive capability to threaten warships in a way that they didn't have in the past. I should emphasize that the pattern of conduct that I characterized as having existed for several decades has been non-confrontational. Admittedly warships, including United States warships, navigate cautiously. They do not stand into danger if they can avoid it. They have sensors to try and detect danger if it exists, but their activities while navigating through a strait are undertaken in a way that in no sense threatens the coastal state. The warships, of course, are very careful not to pollute or endanger any other coastal interests in the strait while they're navigating through it. Presupposing that the ship is not contemplating attack upon the coastal state, that it's simply transiting through to some other destination, I find it inconceivable that a coastal state would engage in armed battle with a foreign warship. The coastal state might complain if the warship were acting improperly or endangering other activities or polluting, but to me it would be astounding to think that a nation would resort to armed force in the face of a long-standing practice that has been non-confrontational and indeed has worked quite well.

Some people have argued that perhaps the navies of the world don't need to preserve this right, that because of the Trident's long range, we would no longer need to be concerned about any other mode but surface passage. This is absolutely and categorically not the case.

The third point involves the impact on commercial ships. I would emphasize that the problems mentioned vis-a-vis commercial ships involve circumstances wherein they were exercising the traditional right of innocent passage or, indeed, high seas navigational rights. Unless commercial submarines are developed, the regime of primary concern to the commercial maritime industry is that of innocent passage and not transit passage.

Gordon, you mentioned that what I'm trying to do is put old wine in a new bottle, but that analogy doesn't fit because really we're dealing with a new concept. Certainly I would be the first to admit that yours is an argument. On the other hand, as someone said the other day: when the map differs from the terrain, it's almost compelling to deal with the terrain as we find it. And again I would maintain that, if you set aside all the characterizations and the language in the Convention and look at what ships of maritime nations are doing, the existing practice looks, tastes, and smells like what is now called transit passage. Whether one argues that they're operating on the high seas or in territorial seas but nonetheless with special rights, whether one says it's a matter of de facto acquiescence or formal agreement, the bottom line is, transit passage goes on.

The final point concerns exceptions to the transit passage regime, as, for example, in straits that have routes of equal convenience. Again, that exception characterizes what has been going on for some time.

GORDON BECKER: Norman, I would like to make a few comments on your talk. Basically you point out the predicament that arises with arrested vessels when you have two different Conventions with two different sets of provisions. You suggest that the Law of the Sea Treaty is a problem-creator rather than a problem-solver when it comes to the matter of arrested vessels, and you suggest a new conference to try to resolve this matter. I'm not sure that you and I have any disagreement at all, because I think that your suggestion is a very practical one.

The thing that bothers me about your presentation is that there are many provisions in the Law of the Sea Convention on arrest and related matters which are desirable and constructive from shipping interests' point of view. I've been mainly interested in those concerning environmental protection. For example, we're all aware that under the Convention there are elaborate provisions for port and/or coastal state enforcement of various international pollution standards as they may be implemented by local measures, and that these enforcement measures include such things as interrogation of vessels, investigation of vessels, inspection of vessels, detention of vessels, and proceedings against vessels. However, the parts of the above environmental provisions of greatest interest, at least to me and I think to shipping interests, are those which contain safeguards protecting the rights of vessels, master, and crew when they get involved with the enforcing authorities. These provisions include among other things the prompt release of vessels on the posting of bond. They require also the expeditious handling of investigations and non-discrimination between vessels of different flags. They permit flag state preemption of proceedings against vessels and generally restrict the form of penalties that may be imposed in pollution cases to monetary penalties, with imprisonment precluded. Although they are not arrest provisions as such, the provisions which

guarantee the accused individual -- say, a master or an officer or a crew member -- are the generally accepted rights of an accused defendant. One extremely important provision says that an enforcing state which takes excessive enforcement measures or illegal enforcement measures under the Convention has to subject itself to appropriate judicial recourse. Lastly, Article 292 of the Convention permits a state, one of whose vessels allegedly has been improperly detained, in violation by the detaining state of Convention provisions for prompt release of vessel or crew on posting a bond, to submit that dispute to the Law of the Sea Tribunal or other appropriate court for a decision and for the purpose of securing the release of the vessel. I think that we should point out these provisions as innovative and practical and constructive insofar as shipping interests are concerned.

NORMAN LETALIK: Thanks for pointing out those items, Gordon. Of course, I don't really have any quarrels with any of those points that you mentioned; in fact, I address some of them in my paper. I don't really believe that the Law of Sea Convention in this field is a problem-creator; rather, in a lot of ways it is a problem-ignorer. The problem was created when a very poor compromise was struck in the 1958 Territorial Sea Convention with regard to the civil arrest of vessels. I chose to focus on that point this afternoon. Because the new Law of the Sea Convention is a problem-ignorer, it perpetuates the problems created by the 1958 Convention.

With regard to the other matters, I think you're perfectly right. Some of the provisions within the Convention, especially those which deal with arrest for environmental violations, and in particular those dealing with port state jurisdiction, are very much steps in the right direction. It is, interestingly enough, in those areas where the Law of the Sea Convention has dealt with new functional areas, particularly within the exclusive economic zone, that you find the resolution of the problem the greatest.

The problem, to my way of thinking, is that the Second Committee merely adopted many of the general arrest provisions in the 1958 Conventions, in particular from the Territorial Sea and the High Seas Conventions, without properly adapting them to generally accepted powers of civil arrest. In the deliberations of the Second Committee one finds very little discussion of many basic issues dealing with civil arrest. However, when the Convention dealt with issues arising from the creation of new coastal state rights in the exclusive economic zone where, for example, exclusive fisheries rights were created, then I entirely agree with you. Important protections were given, for example, to foreign fishing vessels to prevent their unlawful arrest and detention. I think that provisions such as those are very much steps in the right direction.

Nevertheless, in practice, problems will undoubtedly arise. For example, the concepts of bond and prompt release are not defined. We all know what variations presently exist between states in those areas. Now, admittedly, it becomes difficult in

a constitutive treaty like the Law of the Sea Convention to deal with those kinds of technical procedural issues. I wondered, as I posited my conclusion, whether it was appropriate to deal with those procedural matters in a broad-based treaty that sets out fundamental norms. I think it's unrealistic to expect that the Law of the Sea Convention -- as it was already such a protracted experience -- would begin to deal with so many particulars and so many different areas of arrest.

What we need is, first, to have the fundamental norms accepted by the international community. Once that happens, we should think in a very creative fashion about what kinds of procedural safeguards should be entrenched. Admittedly, one has to be very careful. When coastal and flag states don't agree, as was often the case at UNCLOS III with regard to the balance between some fundamental norms, the need for procedural safeguards is all the more obvious. But it's a difficult balancing act. I think that with regard to civil arrest, and in some instances with regard to criminal arrest, the procedures as they are outlined at the moment are not adequate.

DAVID LARSON: You mentioned "the gap in perceptions about arrest between private and public international lawyers." I'm not quite sure what the nature of this gap is. Is it economic, is it order?

NORMAN LETALIK: It lies in their fundamentally different interests.

GORDON BECKER: You stated that you think that there are some ambiguities particularly of a procedural or technical nature, and that it might be necessary to have a subsequent or special conference dealing with these. My question, which you've partially answered, is: what would you think the agenda for such a conference might include, or what do you think are some of the outstanding maritime legal issues or procedural issues that need clarification?

NORMAN LETALIK: I think it is a function of the different way that private and public maritime lawyers look at matters. Trained first as a public maritime lawyer, I admit my prejudices fall very much in that direction. Nevertheless, I think it's safe to say that public maritime lawyers take a broader look at all of the issues. They are concerned with the balancing of rights between coastal and flag states, whereas the private maritime lawyer is overwhelmingly preoccupied with only one notion, and that is making sure that his client's claim is satisfied, which usually means that a ship has to be arrested. As a result, he's less concerned with whether there's been a violation of that ship's freedom of navigation or of its right of innocent passage when he arrests a vessel. Rather he is only concerned that his client's claim will be fulfilled. His focus is narrow. But traditionally public maritime lawyers haven't had as much regard for the commercial interests as perhaps they

should have. That's where they can probably learn something from the private maritime lawyers.

Finally, civil arrest has not been an overwhelming problem in the past, but this is likely to change in the future, particularly with the technological changes that are taking place. For these reasons, it concerns me that the civil arrest provisions were basically ignored at UNCLOS III.

JACK GARVEY: Thank you. Now we will hear from Carl Blom as to whether the discussion today indicates a more or less risk-free environment for the conduct of the maritime trade as he understands it.

COMMENTARY

Carl Blom
Overseas Shipping Company
San Francisco

Every time we talk about the situation, I'm supposed to feel nervous about what is going on. When I first got involved with the "Law of the Sea" issue, everybody asked me, "Does this make you nervous?" Immediately I started to get nervous about not being nervous about being nervous. I know that is a lot of gobbledegook, but when I hear about commercial submarines and all sorts of "regimes," you can understand that a simple businessman like me gets confused. I mean, it's tough enough making a dollar with surface carriers, let alone going into things like commercial submarines. We do have to be practical. I'm neither nervous nor concerned about all these things that have been discussed, and there is a reason for that. I don't think the U.S., the great maritime nation that it is, is going to allow anyone to play around with our rights to the freedom of the seas. I'm sure that we will always have that access. I'm sure our navy will see to that, and I don't think that we are without support. The market here in the U.S. is probably the greatest marketplace in all the world. I can't imagine that all those nations out there who are running trade surpluses with the U.S. are going to deny us access to their markets when ours is so important to their own prosperity.

I'm not sure you realize how important our market is to the nations of the world. The deficit on our trade balance is one clue; another clue I can give you is the rapid increase in imports in the Port of Los Angeles/Port of Long Beach over the last couple of years. This last year the increase was 45 percent over the year before, and in 1983 the increase was 35 percent over 1982. Those are tremendous growth factors, particularly when you consider that in 1984 the growth in Silicon Valley has only been 20-25 percent per year over the last few years. Again, what I am trying to emphasize is the importance of the U.S. marketplace in world trade. Surely that's the "goose that is laying the golden egg" today, and I can't believe anyone wants to fool with that. I don't think that any nation is going to allow disputes over nodules somewhere on the ocean floor to disrupt that market, that flow of trade. At least that is the way I see it. I know that some abrasive things have been said at this conference, and some people might take offense at what has been said by Secretary Malone and/or others. But the fact is that freedom of the seas and freedom of trade are important to all of us, maybe even more so to the world at large than to the U.S., and it is important that people come straight out and say that. The U.S. has to protect its interests; we also have a responsibility to protect the freedom of the seas and free trade for the good of all. Most of you agree, and I think most nations agree, with the U.S. position. Some nations might not come out and say that, but

they'll tell you in private that they agree with the U.S. position on almost all these issues.

Well, I don't know if my remarks have been helpful; I fully understand that a good many of you are concerned about the "Law of the Sea" and all that that implies, and you should be, but I think one has to look at the larger economic issues and see to it that these lesser issues are resolved in a peaceful and proper way. I thought Admiral Harlow put it very well; I thought he put the pieces in their proper perspective. So getting back to where I started, I'm not anxious about what has been discussed here this week. I think the foreign business community has too much to lose to want to pull the string on the U.S. Have you been to Hong Kong or Singapore lately? Have you seen all the Mercedeses, Rolls Royces and fancy cars that they have out there? Do you think, for example, that all those nations in the Pacific Basin are going to give up their favorable trade balance with the U.S. to side with some of those positions that have been argued this week? I don't think so. No, I'm not nervous.

JACK GARVEY: Thank you, Carl. When lawyers talk to one another too much, they forget about their clients' point of view, and I think you set us right to a remarkable extent.

We have some time, so I invite anyone in the audience to address the panel.

FREDERICK S. WYLE: Although I have been active in the law of the sea on behalf of a small island nation, I speak here personally. I want to applaud Mr. Blom's statement and sympathize with it. We do have a growth industry in the legal community which puts to shame the container and the silicon industry. We may be engaged in an exercise that has carried us away, but I do think we have a dilemma. That is, on the one hand, we could say, as we are constantly tempted to say, "Look, we will do what we need to do. We, the United States, have the force and the resources to do what we want to do and make everybody accept it, for self-interest or for simple reasons of self-preservation."

On the other hand, if we spend too much time enforcing our will, we'll have no time for some of the things we want to protect, such as our normal defense functions, trade functions, and so on.

So the judgement was made in the 1960s: rather than meet nuisance attacks, nuisance barrages, nuisance legal arguments as they come up, let's get one big law of the sea resolution, which cuts down to an absolute minimum the nuisance activities. Now, that kind of judgement can never be proved to have been right or wrong. I have my personal doubts about it, but that was the judgement.

Now the United States has basically shifted its position and said, "Well, on balance, it wasn't worth having one Law of the Sea Treaty because, having waited, we find that the seabed provisions are not worth the advantages of the navigation."

Now, ours is a huge country, constituencies in the U.S. differ, and the Navy has to try to get what it can out of the Treaty. The mining industry in theory is satisfied to have had the Treaty turned down. I'm sympathetic to the Navy and to the different interests that are trying to do their best. I do want to say one thing, though. I think it would be a mistake, it would be no service to our friends in the Administration, if we didn't use an occasion such as this, which is the continuing dialogue about the law of the sea in the world community, to send them back to Washington with the message that, right at the moment, the U.S. position will not wash with independent opinion.

The U.S. is trying to have its cake and eat it, which is what we all try to do all the time. But sometimes we are in a position where that is not possible. The U.S. is in the position with respect to tuna, overflight, transit passage, the items recited in Professor Burke's paper, and a number of other items, where it simply cannot have the advantages of the treaty without giving up some of what it hopes to retain.

I've heard of a number of instances where the U.S. team has reported back to Washington that there seemed to be general acceptance of the U.S. position. These reports were, in many cases, quite false; they were poor apprehensions of what people really thought. The outcome of this enormous effort shows that there have been some misapprehensions and some mistakes on the U.S. side.

I would like to emphasize those parts of the message to our U.S. Administration friends that say, "You cannot really hope to maintain the current U.S. posture; you'd best get about trying to come up with a realistic set of renegotiating positions so that you can fix the seabed portion of the Treaty in a minimal way, enough to get by. Until you succeed in doing that, while of course you have to maintain certain positions, don't kid yourself. Those positions are not going to be accepted." Any comment on that general proposition, which in a way is the theme of the Conference, from any of the panel members?

BRUCE HARLOW: Just a general comment. I appreciate Carl's comments and would want to make perfectly clear that, although we all tend to parade horribles, the overall view in the United States Navy is one of optimism for the orderly development of the law of the sea, notwithstanding a disagreement over seabed mining. We share the view Carl espoused that coastal and maritime nations will work through this situation very positively. Indeed, when I deal with commanding officers of ships, whose eyes do not comfortably focus at distances of less than a quarter of a mile, it's difficult to get them to pay too much attention to any of these rather esoteric legal theories. They are more concerned with the underlying responsibility of navigating reasonably and safely and, I can assure you, in a non-confrontational manner.

There is a "have cake and eat it, too" syndrome that has been dominant for the last several years, and it relates, I suppose, to the "package deal" -- that is, the Treaty was negotiated as a package. The inference was that we couldn't enjoy navigational rights unless we agreed to the Treaty's seabed regime. The timing is off for that type of an approach to work, in my judgement. I know that it was impossible to separate the document into two separate pieces, although after 1977 I thought that it would make eminent sense to do so, not because there shouldn't be vigorous work on both the seabed issues and the navigational issues, but because I thought it was a mistake to tie, in one document, long-range futuristic problems to current day-to-day issues. There is little prospect that any nation will eat the seabed cake for thirty, forty, or fifty years. What do we do in the meanwhile? A monumental irony of maritime history would be if nations tried to impede or stop a balanced, a navigational, regime from being implemented because of perceived seabed mining interests. We would face, perhaps, chaos and confrontation when in the final analysis the entire seabed mining issue might become moot, might be rendered irrelevant through technological change. I very much hope,

therefore, although I can see the "package" and "have-cake-and-eat-it-too" issues arising, that we can get on with the urgent maritime business of the day: sorting out the emerging regimes in the light of actual practice. I don't view this approach as a one-sided proposition; I think it's in the interest of both coastal and maritime states to sit down and work towards a fair implementation plan and a balanced approach to these issues.

DAVID LARSON: I'd like to respond to that. I think it comes down to the question of procedure and approach. I agree with Mr. Wyle; that is to say, I disagree with Admiral Harlow. I think he's advocating a states' rights precedence, a muddle-our-way-through approach, to try to resolve some of the ambiguities and confusions which do exist. I don't think we can deny that they exist; you can't wish them away, they're there. To try to get out of this dilemma the United States is in, we should issue a declaration to the effect that we regard the 1982 UNCLOS Convention as customary international law, not say "it's reflective of" or "evidence of" -- those are euphemisms. We should come out and flatly say, "It's customary international law, and we'll abide by its provisions on a reciprocal basis with all of the states which also agree to do so except for Part XI which should be renegotiated." I think that can be done in the form of an executive declaration, which of course is an executive agreement equally binding in international law. We have case precedents in the U.S. Supreme Court -- United States v. Belmont, United States v. Pink, etc. -- so there's no problem there. I agree with Mr. Wyle; I would prefer that as an idealistic but neat, clean, direct approach to the problem.

DANIEL CHEEVER: Optimists and pessimists -- I'm not quite sure where I stand, but I am reminded of a story. It seems to me the optimists are in danger of being a little bit like the girl on Christmas morning who woke up to find her stocking full of droppings from the stable, and she turned to her parents and said, "Oh, Mummy and Daddy, how wonderful! Santa Claus tried to give me a pony, but it got away!"

My concern, of course, is that the things that Admiral Harlow and Professor Larson talked about may get away and may escape us. The United States could have taken an optimistic or a more positive approach to the Law of the Sea Convention. Instead, it placed too much on the negative, insisting that the Sea-Bed Authority won't work without really having proved the case -- though I admit I share the skepticism. My point is that the United States attached too much importance to the Area and the common heritage and not enough to codified navigation rights. From what we heard yesterday from Mr. Welling about the march of technology, I suspect the Area is going to be a non-issue and that Chapter XI will be a non-problem because we can get these minerals under different forms of jurisdiction when we need them.

Meanwhile, what have we done? We in the U.S. have singled out the most difficult part of the Convention and have taken a

negative approach to the Treaty as a whole. The Treaty is the fruit of one of the most extraordinary political processes directed towards the establishment of a system of world order that, in my judgment, has ever been seen, at least in modern history. We could have been leaders for the positive, it seems to me, rather than yielding leadership to other powers and other ideologies. Why emphasize the negative when technology, science, goodwill, and leadership are moving so positively towards a new, stable world order. Forgive the sermon; I could hardly forbear!

GEIR ULFSTEIN: I have a question for Professor Burke. He focused on the conflict between the coastal state's resource jurisdiction and the freedom of navigation, and he explicitly mentioned fisheries jurisdiction and environmental jurisdiction. But we now see also a similar development on the continental shelf activities. In the Norwegian sector of the North Sea there are now regulations prohibiting anchoring and trawling outside the ordinary 500-meter safety zones. There is a special competence to establish a 500-meter safety zone in the Continental Shelf Convention, Article 5. But the question to Professor Burke is: do the sovereign rights of the coastal state, according to Article 2 in that Convention, imply a competence to impose such restrictions outside the 500-meter zone to a greater extent than is provided for in the specific provisions of Article 5? Don't you now see, in several fields, what we usually call a "creeping jurisdiction"?

WILLIAM BURKE: Well, as I understand it, the problem under the Shelf Convention is not new. It was well known at the time of the Convention and the preparatory work that there were problems of accommodating the use of that area for oil and gas with navigation. There wasn't any way around that problem, it had to happen. Article 5 refers to "unjustifiable," as in "there shall not be any unjustifiable interference with navigation," so that what you have is a continuing problem of determining what's "justifiable" and what is not. As for the 500-meter safety zone, my recollection is that distance came primarily from national laws which were dealing with problems of avoiding fire. For the movement of vessels at sea, 500 meters is hardly a very great distance. It is a minimal area for safety around an installation, I would think; if it were 1000 meters or more, that wouldn't bother me very much. The question is, what will work? There is no doubt that the use of the area for both oil and navigation is going to continue and will spread around the world into areas that are, from an environmental point of view, more difficult to work in. Therefore there may need to be adjustments that would have a more severe impact on navigation than in the past. As I said, I don't see why that should bother us very much, as long as you're attempting to balance these uses so that they can continue together. The activities that I referred to in connection with no-anchoring were not resource use itself but protection of aspects of the environment. I'm

concerned about a prohibition on incidents of navigation for environmental protection reasons because the Treaty is very careful about this balance and because states may adopt exaggerated interpretations of their authority in order to protect the environment at the cost of severe impacts on navigation.

We have already seen in the statements at the closing ceremony in December, 1982, if my recollection is correct, interpretations that give much greater authority to the coastal state than the Treaty provides. I think there is a potential for this kind of extravagant interpretation in connection with environmental protection. The kinds of activities that are protected by freedom of navigation or that are incidents of navigation and similarly protected are varied, including military activities. The Treaty was very carefully phrased to avoid some of these problems which could be raised if states follow the lead of the United States in the Flower Garden Bank area.

DERMOTT DEVINE: My question is basically to Professor Burke. It arises out of Admiral Harlow's talk on the international customary law position of passage of warships through straits. As I understand your thesis, Admiral Harlow, you base your arguments on a doctrine of acquired rights here. Maritime countries have exercised certain rights for their warships through international straits. They have acquired customary rights in the past. These are not merely rights of innocent passage, but they are full high seas transit rights because, at the time when they were acquired, these corridors were a part and parcel of the high seas. You then argue that these rights have been maintained by constant practice against encroachment and have been asserted where necessary. You argue that they can only be lost by acquiescence or consent or perhaps by disuse but that they certainly cannot be lost by a change in the status of the waters through which they exist. I think myself that there is a precedent for this in the rules relating to the drawing of baselines. When we draw straight baselines, the right of innocent passage is preserved to landward of the straight baseline. Therefore, the right of innocent passage is preserved in waters despite the fact that the status of those waters is changed from territorial seas, on the one hand, to internal waters, on the other hand. So there is an analogy here for what it's worth.

But my basic questions to Professor Burke are the following three. First, whether he would agree with Admiral Harlow's description of the way in which rights have been acquired here. Secondly, whether those acquired rights have been lost or not, and, if they have been lost, by what process. And thirdly, in the future, how such rights could be lost if a maritime state might continue to exercise these rights and might not become a party to the 1982 Convention.

WILLIAM BURKE: I disagree that the rights were established in the first place except under the doctrines of international law relating to the high seas. The premise on which this argument is based, as you pointed out, is that you could not change the status of the waters to affect the rights which had previously been exercised in those waters. The example you give, unfortunately, proves the opposite of what you've said. The areas that were involved, as I understand it, in the delimitation of the straight baseline system in Norway were previously high seas, not territorial sea, and the right subsequently recognized by negotiation at the 1958 LOS Conference was the right of innocent passage. They did change the rights. Freedom of navigation did not survive the change to, or recognition of, Norwegian internal waters.

Secondly, we have numerous instances where rights which had been acquired have been changed, and the process of change is through the evolution of customary law. The exclusive fishing zones are not a creation of the 1982 Convention on the Law of the Sea. The exclusive economic zone is a result (at least partially) of the LOS Conference, but there were exclusive fishery zones at least fifteen years before that, where the rights previously accepted under freedom of fishing no longer existed, and that has been accepted. That was accepted in the case of the United States itself in 1966 when we adopted a twelve-mile exclusive fishing zone. So I think that there are ample precedents for changing rights and that the use of the "acquired rights" is a really tired way to try to get at this problem. I said I didn't think the rights were established, but with respect to aircraft I'm absolutely positive that that's the case, that there was no freedom of access for aircraft, state aircraft, above any part of state territory. The change in extent of state territory would impact the passage of aircraft. With respect to submarines, the unfortunate part of submerged transit is that if it occurred prior to the Treaty, if it occurred during the period since World War II, if it were submerged passage through the territorial sea, then clearly it was in violation of the law. On the other hand, it's very difficult to document this alleged practice of submerged transit because it is submerged. States weren't supposed to know the submarines were there, so they were not in a position to object. It's very hard to establish acquiescence when one of the parties is doing something which they are deliberately concealing from the other. So it seems to me rather difficult to establish that side of the argument.

The other complicating factor with respect to movement of submarines is that agreements exist with some states providing for submerged movement through their territorial areas. That complicates the problem of establishing a right, because a practice which results from an agreement negotiated with the coastal state is not very good evidence, at least to my mind, for the creation of customary law.

JOHN KNAUSS: Much of the seminar this afternoon has dealt with navigational rights, both military rights and commercial rights, in light of the fact that the United States will not be party to the 1982 LOS Convention. Mr. Blom suggested that, in spite of any other difficulties we have with not being party to the Treaty, the economic well-being of the world is such that economic forces will overcome these difficulties and commercial navigation will continue. Admiral Harlow has suggested that, one way or another, by hook or by crook, the military navigational rights of the United States will continue. Many of the questions addressed to Admiral Harlow suggest that there may be some problems with his position.

I would like to ask anyone on the panel whether or not there's any concern about Mr. Blom's position. Are the economic forces that require commercial traffic to continue to flow unimpeded back and forth between nations sufficiently strong or do you see foresee any factors that would impede U. S. commercial shipping if anyone wanted to use the provisions of the 1982 LOS Convention to which the United States is not party?

BRUCE HARLOW: If you're talking in terms of surface commercial navigation, you're either talking navigation on the high seas or through straits; you'd be talking about what would be termed "innocent passage," which renders moot the whole issue of transit passage. When it comes to commercial navigation, the coastal state generally has a strong economic interest in permitting continued flow of maritime traffic. It would be an exaggeration of the perils that we face to think that responsible nations are likely to interfere with commercial maritime traffic. Even if all nations signed the Treaty and we all reached agreement on all these issues, we would still be facing a potential challenge from irresponsible nations. Even vis-a-vis military ships, I do not believe that nations, for a nebulous, futuristic, iffy concern about seabed mining, would seriously contemplate undermining what most people consider is a balanced and fair navigational regime contemplated in the 1982 Convention.

JACK GARVEY: Thank you, Admiral Harlow. I'd like to thank the members of our panel and the audience as well for very fine comments and questions.

BANQUET SPEECH

INTRODUCTORY REMARKS

John P. Craven
Law of the Sea Institute
University of Hawaii

When I ask myself what is the real success of this conference and of this institute, it is the fact that it's an organic process, that we are here as the result of a U.S. and world organic consensus process that is bringing practitioners and scholars from the full spectrum of the ocean to come and talk, free from the constraints of their official capacities, to talk and propose modifications and initiatives which will allow us to develop that peaceful order of the ocean.

History fails to record that there are a few individuals who are the Machiavellis of this process, and so when we came down to look for the banquet speaker for this evening we decided that we would look for the Machiavellian organization and the Machiavelli associated with that organization. For a moment, a brief moment, we had a dilemma because we concluded that the Machiavellian organization was the National Advisory Committee for the Oceans and Atmosphere and therefore the chairman of that organization ought to be that Machiavelli. We made that conclusion at a time that NACOA, instead of having a low profile, had a high profile. We said, "Well, that's good: NACOA has a high profile." And then events transpired in which the world knew about NACOA but they didn't know about the chairman. And we said, "Aha! Machiavelli has been restored to the throne." We looked at the chairman of NACOA and we said, "Who is this individual?" and discovered that he is one that we have long known. This individual was the Machiavelli who really started the Law of the Sea Institute.

There was once a man educated as an oceanographer, who through some sort of mistake on the computer was put on the Stratton Commission in order to look at ocean policy in the U.S. Suddenly he began to think about ocean policy as well as oceanography and he got together with a few cohorts and they started a conference at Ohio State -- the Mershon Conference -- and out of the Mershon Conference came the strange organization called the Law of the Sea Institute which had enough money to publish its first volume in leather-bound buckram and its second volume as mimeographed pages. It's been in that state ever since. And it was under the guidance of the individual who is now our banquet speaker.

I'm not going to recite all the National Academy of Science and Engineering Committees that he's been on but he's the chairman of NACOA. He's been involved with NACOA ever since. He's the University of Rhode Island's number one oceanographer and guiding spirit and we are very privileged to finish this conference with some insights from the man who has been involved in the organizations that really set ocean policy for the United States.

I got a warning from this individual. He said to me, "Craven, if you give the introduction of me that you intended to give, I will deliver the speech that the Administration wrote for me. But if you are fairly mild and temperate, I will give my own." Johnny Knauss.

CREEPING JURISDICTION AND CUSTOMARY INTERNATIONAL LAW

John A. Knauss*
Graduate School of Oceanography
University of Rhode Island

I am an amateur practitioner in marine policy in the strict sense of the word. My formal training is in science, and for the past 35 years I have been paid to do marine science or to administer marine science programs. Much of my original interest in the law of the sea was sparked by concern for the future of international marine scientific research, and during the 1970s I spent some time attempting to design strategies and to persuade others, in an effort to insure a benign marine scientific research regime in the Law of the Sea Convention. We were largely unsuccessful, and, in retrospect, my efforts and those of my colleagues may have been counterproductive in the sense that our continuing championing of marine scientific research gave it a visibility that it might not otherwise have had and a regime that is more complex than might otherwise have been the case. Once hooked on marine policy and the law of the sea, it is difficult to put it aside, and I continue to take an active interest in these matters.

I find myself increasingly fascinated by two terms in the lexicon of those who deal with the law of the sea. The first is creeping jurisdiction, the second is customary international law. I believe I have at least a rudimentary understanding of the forces that shape the former. However, in spite of some reading on the subject, as well as listening to experts, I admit to being largely confused by how one determines the latter. Yet I believe it is the interplay of all that is implied by creeping jurisdiction and customary international law that is going to shape the law of the sea over the next 25 years.

Let us consider creeping jurisdiction first. We have come a long way since the first and second Law of the Sea Conferences of 1958 and 1960. We now have a 24-mile contiguous zone rather than 12. We have a 12-mile territorial sea. Where we had no fisheries zones before we now have a 200-mile exclusive economic zone (EEZ). We now have a juridical continental shelf that extends at least 200 miles offshore and to a depth of at least 2,500 meters, far beyond most interpretations of the 1958 Continental Shelf Convention. We now have a precise definition of archipelagic waters. We have a sufficiently liberal definition of an island, at least in a juridical sense, which permits almost any rock sticking out of the sea to be made into an island with a corresponding 200-mile EEZ if the resources of its potential EEZ justify the necessary investment to establish an automated lighthouse. All of these new zones, and the wider old zones, are measured from a set of baselines that stretches

*The views expressed here are my own, and not those of any groups of which I am a member, including the National Advisory Committee on Oceans and Atmosphere.

ever further seaward as geographers and lawyers continue to build on the International Court of Justice's rather open-ended baseline definitions of the Anglo Norwegian Fisheries Case, long since enshrined in our LOS Conventions.

We have all of these measures of creeping jurisdiction, but these are not formal manifestations of creeping jurisdiction unless we have a widely accepted Law of the Sea Convention of 1982. We do not have that as yet, and some, including at least two U.S. spokesmen at this meeting, are now suggesting we may never have. Then again, perhaps most of these carefully negotiated, often highly ambiguous, articles of the 1982 Convention are now a part of customary international law as has also been implied by some.

It is at this point I become a bit confused. I have heard spokesmen from within the Reagan Administration and those outside the Administration, and outside the United States, argue that the EEZ is now part of customary international law, but whose EEZ? Does the EEZ of customary international law include the "implied consent" provisions of Article 252 by which I can send my research vessel into your exclusive economic zone if you take longer than four months to respond to my official request for permission to do research in your exclusive economic zone? I have yet to find any of those who proclaim the exclusive economic zone as customary international law who will also agree it includes Article 252. Are the special rights of land-locked and geographically disadvantaged states in other nations' exclusive economic zones as spelled out in Articles 69 and 70, and elsewhere, a part of customary international law?

I expect the answer is no, and I expect at least one of the reasons it is no is because of creeping jurisdiction. If a criterion for customary international law is a widespread and uniform practice, then I very much doubt that many of the special international rights for research and resource use in exclusive economic zone and continental shelf are going to survive unless the 1982 Convention enters into force, and those who believe otherwise are kidding themselves. Furthermore, in the absence of a widely adopted LOS Convention of 1982, I am not sanguine about the preservation of some of the more traditional international rights of commercial navigation and military use.

The reason we have creeping jurisdiction is because of ocean resources, both real and potential. I believe, and most of my science colleagues believe, that ocean resource use and ocean development will increase. Fishing, oil, gas, other minerals, ocean thermal energy, ocean aquaculture, or at least ocean ranching, waste disposal, and more. It is not a question of whether it is, only a question of when. Such developments, at least in some areas, are not consistent with the unconstrained movement of shipping.

There is no technical reason why shipping cannot be controlled; therefore, why not control it? In a very few years the U.S. government is going to make available to the world a fancy new navigational system, Global Positioning System, or GPS for short. In fact, a prototype system is already in place. All it takes is a simple radio receiver (that presently costs

about $100,000, but in five years will cost $5,000, and in ten years will probably cost no more that a few hundred dollars) and you will know your position within a few feet 24 hours a day anywhere on the surface of the earth. These small radio receivers soon will be in the hands of campers and recreational boaters, as well as military and commercial users. Chrysler Motors is even considering making it an option on their automobiles in the 1990s. It, along with computer-stored maps, should keep any driver from getting lost. It may not be good enough to tell you which side of the street you are on, but it should be able to tell you the name of the street.

With GPS any coastal state anywhere in the world can justifiably establish narrow and separate sea lanes, if for no other reason than to minimize collision and pollution and it will be able to enforce international commercial traffic to stay within those lanes unless permission is granted to do otherwise. We already have the basis for such a move in Article 53 on archipelagic sea lane passage. A disinterested observer might find it only a small creep to apply the archipelagic sea lane passage concept to an exclusive economic zone which has to accommodate significant commercial traffic as well as resource development or environmental protection. With GPS to mark the paths, I expect widespread use of commercial sea lanes may become a part of customary international law in the next 25 years.

Nor do I believe the traditional military rights to the ocean are going to remain free of creeping jurisdiction, and I am not referring simply to "straits passage," a subject about which we have heard much this week. Those who advocate freedom of the seas in its broadest sense have been fortunate the last 15 years that the so-called navigational goals of both the United States and the Soviet Union have been largely concurrent. A reading of history suggests that one cannot always count on the major military powers having such common strategies. In fact, it was only a few years ago during the 1958 Law of the Sea Conference that the Soviet Union was a strong advocate of a 12-mile territorial sea as well as advance notification of warships transiting the territorial sea, while the United States was holding out for a three-mile territorial sea and with minimum constraints within it. It must be remembered that, although the Soviet Union was a major military power in 1958, it was not yet a major naval power. I am not prepared to predict how military freedom of the sea will be eroded in the next 25 years or even if it will be. But those who believe they have all the widespread and uniform practice they need to maintain current military freedoms of the sea under customary international law, absent a widely accepted 1982 LOS Convention, I believe have their heads in the sand. If nations bordering the Indian Ocean decide to make that body of water a military freeze zone, and if China, the Soviet Union, and the Group of 77 concur, I question how long the United States can hold out.

In the absence of a widespread and uniform practice, as manifested by a widely adopted 1982 Law of the Sea Convention, I see little to slow creeping jurisdiction in the next 25 years.

Nor do I mean to suggest that widespread adoption of the LOS Convention will freeze international law. As many of you in this room are acutely aware (since you were responsible for the negotiations), there is sufficient ambiguity in many of the articles of the 1982 Convention to insure a continuing creep of national jurisdiction if that is what the forces demand. All the Convention will do is slow the creep rate. I have heard a cynic describe customary international law as whatever a nation can get away with. Stake a claim, as in the Truman Proclamation or as in the Declaration of Santiago, and see what happens. Test the waters, as Brazil did in its reservations on military use of the exclusive economic zone. If there is widespread support, or at least relatively ineffective opposition, you are well on the way to establishing a new norm in customary international law.

Sea lanes for commercial shipping, extensive pollution-free zones, even military-free zones from which all foreign shipping is forbidden, extension of jurisdiction beyond 200 miles to fisheries stocks that extend beyond the EEZ, the expansion of the archipelagic nations concept to small island nations where the ratio of land to water does not meet the required one to nine ratio -- all of these movements seem possible in the future as coastal nations find reason to develop increasing sovereignty seaward.

O'Connell, and others, have written of the cyclical nature of mare liberum and mare clausum. He suggests that freedom of the seas dominates when one or a few commercial powers achieve dominance or parity and that closed seas is the rule when power is more widely distributed. I agree that one can read history in that light, but what was absent before has been the actual occupancy of the sea. Man has yet to dominate the sea, as he has the land, and the romantics amongst us do not want to believe we ever will. But we are getting there, faster than most casual observers realize. With the ability to occupy the sea, to work the sea, to extract the resources of the sea, to dominate the sea as we have the land, comes sovereignty of the sea. I believe the continuing flow of marine technology is a more cogent argument for creeping jurisdiction than the political argument of the dominance or division of power between nations.

Let me close on a different note. So far I have been arguing that the forces of creeping jurisdiction are going to determine future customary international law. Is there any counter force that will increase the international character of the oceans? I can think of one and it is not seabed mining. As you might have guessed by now, I am an advocate of the 1982 Convention though I agree the deep seabed parts of the Convention are not useful. But given my views of the role of jurisdiction and my belief that it is in the best interests of the United States to slow the creep rate, I believe we should have swallowed hard and signed the Convention. My candidate for making the oceans more international is the prospect of global ocean pollution and the need to reach agreement on protecting the ocean commons.

Transnational pollution problems are of increasing concern: the acid rain effects of coal-burning in Germany and France on the forests of Scandinavia, the same issue between the United States and Canada, and between the mid-western industrial states of the United States and the acid rain-sensitive lakes and forests of northern New England. Other examples are pollution in rivers like the Rhine where a nation's input affects downstream states. On the truly global level we have the worldwide increase of carbon dioxide in the atmosphere caused by the burning of oil, coal, and wood.

Waste management is a special form of pollution. That which cannot be effectively recycled must be disposed of somewhere. As we in the United States and elsewhere unearth more and more horror stories about incomplete incineration, landfills that pollute drinking water aquifers, lack of record keeping that allows housing developments on abandoned waste sites, a number of persons look longingly at the oceans as an alternative. I belong to a group that believes that under proper controls, the ocean can be used as a site for waste material with minimum risk and with minimum adverse effect on the oceans.

I also believe we are going to see an increased pressure to use the oceans for waste disposal in the future because of the concern about human health effects of our present waste management policies. Most coastal nations are party to the London Dumping Convention. It is too early to tell whether the increasing number of annexes and protocols of the London Dumping Convention can keep pace with the growing interest in the ocean as a waste disposal site. More importantly, the London Dumping Convention has yet to be truly tested. Are the nations of the world prepared to let some international body determine their waste management practice when the regulations are strongly contrary to their perceived natural interests? I expect the answer is no. I may, however, be wrong because the alternative is to let each nation go its own way in determining where and how to dispose of highly toxic material in the ocean, or low level radioactive wastes, to regulate at-sea incineration, even to determine individually how, and under what conditions, it should use the deep seabed for the disposal of high level radioactive waste.

It is barely possible that concerns about pollution of the global commons will drive the United States back to the international treaty table to discuss not an International Seabed Authority for seabed mining but an International Seabed Waste Management Authority to protect the global commons. But I will not hold my breath.

Absent widespread adherence to the 1982 Law of the Sea Convention, including the adherence of the United States, I expect to see creeping jurisdiction continue to drive customary international law for the next 25 years at as fast a rate as it did between 1982 and 1985.

LIST OF PARTICIPANTS

Dr. Scott Allen
Associate Director
Law of the Sea Institute
University of Hawaii

Dr. Dayton Alverson
Consultant
Natural Resources Consultants
Seattle, Washington

Dr. Lee Anderson
Department of Marine Studies
University of Delaware
Newark, Delaware

Mr. Steinar Andresen
Research Associate
Fridtjof Nansen Institute
Oslo, Norway

Professor Dennis W. Arrow
School of Law
Oklahoma City University
Oklahoma City, Oklahoma

Mr. William Bagley
Public Utilities Commission
State of California
San Francisco, California

Ms. Patricia Barcott
Attorney
Seattle, Washington

Dr. John Bardach
Resource Systems Institute
East-West Center
Honolulu, Hawaii

Mr. Gordon Becker
Kirlin, Campbell & Keating
New York, New York

Mr. Nat Bingham, President
Pacific Coast Federation of
Fishermen's Associations
Sausalito, California

Mr. Carl Blom
President
Overseas Shipping Company
San Francisco, California

Ms. Joan Bondareff
Assistant General Counsel
NOAA, Department of Commerce
Washington, D.C.

Mr. Robert Bowen
Marine Policy and
Ocean Management Ctr.
Woods Hole Oceanographic Inst.

Mr. Harley Branson
Vice President/General Counsel
Bumble Bee Seafoods
San Diego, California

Mr. John Briscoe
Attorney
Washburn & Kemp
San Francisco, California

Professor Edward D. Brown
Centre for Marine Law and
Policy, University of Wales
Institute of Science and Tech.

Ms. Marjorie A. Browne
Congressional Research Service
Library of Congress
Washington, D.C.

Ambassador Peter Brueckner
Legal Adviser
Ministry of Foreign Affairs
Copenhagen, Denmark

Commander Dennis L. Bryant
U.S. Coast Guard
Washington, D.C.

Professor William Burke
School of Law
University of Washington

Dr. Anthony Calio
Deputy Administrator
NOAA, Department of Commerce
Washington, D.C.

Professor David L. Callies
Wm. S. Richardson School of Law
University of Hawaii
Honolulu, Hawaii

Dr. Hugo Caminos
Under Secy for Legal Affairs
Organization of American States
Washington, D.C.

Dr. Daniel Cheever, Editor
Ocean Development and
International Law
Cambridge, Massachusetts

Mr. Louis F. Claiborne
Deputy Solicitor General
U. S. Department of Justice
Washington, D.C.

Mr. Donald Claudy
Counsel
Exxon Corporation
New York, New York

Mr. David Colson,
Asst. Legal Adviser for Oceans,
Int'l Envt'l and Sci. Affairs
U. S. Department of State

Dr. John P. Craven, Director
Law of the Sea Institute
University of Hawaii
Honolulu, Hawaii

Mr. Clifton Curtis
Ocean Policy Offices
The Oceanic Society
Washington, D.C.

Captain John W. Drapeau
Naval Legal Service Office
U.S. Navy
San Diego, California

Ambassador Jens Evensen
Ministry of Foreign Affairs
Oslo, Norway

Mr. Michael L. Fischer
Executive Director
California Coastal Commission
San Francisco, California

Ms. Brit Flolstad
Research Fellow
FridtJof Nansen Institute
Oslo, Norway

Mr. Edward W. Cannon
Policy Advisor
U.S. Coast Guard
Washington, D.C.

Mr. Niyada Choonhawongse, Dir.
Maritime Mgmnt. and Law Prog.
Thammasat University
Thailand

Mr. Walter F. Clark, Attorney
Sea Grant College Program
North Carolina State Univ.
Raleigh, North Carolina

Professor Thomas A. Clingan
School of Law
University of Miami
Coral Gables, Florida

Professor Alastair D. Couper
Department of Maritime Studies
UWIST
Cardiff, Wales

Prof. James A. Crutchfield
Department of Economics
University of Washington
Seattle, Washington

Mr. Dermott Devine, Dir. Des.
Institute of Marine Law
University of Cape Town
Cape Town, South Africa

Dr. Otho Eskin, Director
Office of Advanced Technology
Department of State
Washington, D.C.

Dr. Eduardo Ferrero Costa
Director, Centro Peruano
de Estudios Internacionales
Lima, Peru

Mr. Patrick J. Flanagan
Secretary/Treasurer
Standard Fisheries Corporation
San Francisco, California

Mr. John Norton Garrett
Petroleum Consultant
Houston, Texas

Professor Jack Garvey
School of Law
University of San Francisco
San Francisco, California

Fred Goss
Student, School of Law
University of San Francisco
San Francisco, California

Mr. Jaque Grinberg
Second Secretary
Australian Embassy
Washington, D.C.

Ms. Lynne Carter Hanson
Executive Director
Ctr. for Ocean Mgmnt. Studies
University of Rhode Island

RADM Bruce A. Harlow
Asst. Judge Advocate General
U. S. Navy
Alexandria, Virginia

Professor George Hauck
Faculty of Law
University of Puget Sound
Tacoma, Washington

Mr. Randy Heintz, Director
Engineering Evaluation
ARCO Alaska, Inc.
Anchorage, Alaska

Mr. Roger Herrera
Manager, Operations and Land
SOHIO Alaska Petroleum
Anchorage, Alaska

Ms. Ellen Hey
Volkenrechtelijk Instituut
Rijksuniversiteit Utrecht
Utrecht, The Netherlands

Lieutenant Howard L. Hills, USN
Legal and DOD Advisor
Micronesian Status Negotiations
Washington, D.C.

Ms. Mary Howell
Legal Assistant
Washburn & Kemp
San Francisco, California

Mr. Brian Hoyle
Office of Ocean Law and Policy
Department of State
Washington, D.C.

Dr. Hyung Tack Huh, Director
Korea Ocean Research
and Development Institute
Seoul, Korea

Dr. Howard Hume, Senior Advisor
Envt'l Emergency Response
Petro-Canada Resources
Calgary, Alberta

Professor Tsu-Chang Hung
Institute of Chemistry
Academia Sinica
Taipei, Republic of China

Mr. David Ivester
Attorney
Washburn & Kemp
San Francisco, California

Professor Jon L. Jacobson
Ocean and Coastal Law Center
University of Oregon
Eugene, Oregon

Prof. Dr. Guenther Jaenicke
Leiman/Heidelberg
Federal Republic of Germany

Mr. George Jenkins
Pacific Ocean Policy Studies
Palo Alto, California

Professor Douglas M. Johnston
Dalhousie Ocean Studies Prog.
Dalhousie University
Halifax, Nova Scotia

Mr. James Johnston
Senior Economist
Standard Oil Company (Indiana)
Chicago, Illinois

Mr. James Joseph, Director
Inter American
Tropical Tuna Commission
La Jolla, California

Mr. James Kateka, Director
Legal and Int'l Organization
Ministry of Foreign Affairs
Tanzania

Mr. Timothy R.E. Keeney
Deputy General Counsel
NOAA, Department of Commerce
Alexandria, Virginia

Mr. Hans-Joachim Kiderlen
Deputy Consul-General for
Federal Republic of Germany
San Francisco, California

Professor John A. Knauss
Graduate School of Oceanography
University of Rhode Island
Kingston, Rhode Island

Professor Dr. Albert W. Koers
Volkenrechtelijk Instituut
Rijksuniversiteit Utrecht
Utrecht, The Netherlands

Mr. G. Thomas Koester
Assistant Attorney General
State of Alaska
Juneau, Alaska

Mr. Alexander J. Krem
Investment Banking Group
Bank of America
San Francisco, California

Mr. George Kriste
Executive Vice President
Cook Inlet Region, Inc.
Anchorage, Alaska

Mr. Robert B. Krueger
Finley, Kumble Wagner
Heine Underberg Manley & Casey
Beverly Hills, California

Mr. Manfred G. Krutein
President
M. Krutein and Associates, Inc.
Mountain View, California

Professor Tadao Kuribayashi
Faculty of Law
Keio University
Tokyo, Japan

Ms. Maivan C. Lam
Assistant Director
Law of the Sea Institute
University of Hawaii

Ms. JoLynn Lambert
Attorney
Washburn & Kemp
San Francisco, California

Professor David Larson
Department of Political Science
University of New Hampshire
Durham, New Hampshire

Mr. Thomas L. Laughlin
Senior Policy Analyst
NOAA, Department of Commerce
Washington, D.C.

Mr. John R. Lawrence
Lawyer
Gulf Canada Limited
Calgary, Alberta

Professor Norman Letalik
Faculty of Law
Dalhousie University
Halifax, Nova Scotia

Dr. John Lo Schiavo, S.J.
President
University of San Francisco
San Francisco, California

Ms. Frances Luyt
Institute of Marine Law
University of Cape Town
Cape Town, South Africa

Professor Alexander Malahoff
Hawaii Undersea Research Lab
University of Hawaii
Honolulu, Hawaii

Ambassador James L. Malone
Asst Secy of State for Oceans
and Int'l Environmental and
Scientific Affairs

Commander Dennis L. Mandsager
Staff Judge Advocate
Naval War College
Newport, Rhode Island

Professor Philippe Manin
University of Paris I
Pantheon-Sorbonne
Paris, France

Mr. Jan Magne Markussen
Research Fellow
Fridtjof Nansen Institute
Oslo, Norway

Mr. Joel E. Marsh
Attorney
Marsh and Perna
Oakland, California

Mr. Robert J. McManus
General Counsel
NOAA, Department of Commerce
Washington, D.C.

Mr. Samuel P. Menefee
Phelps, Dunbar, Marks,
Claverie and Sims
New Orleans, Louisiana

Professor Edward Miles, Dir.
Institute for Marine Studies
University of Washington
Seattle, Washington

Professor John Norton Moore
Ctr. for Oceans Law and Policy
University of Virginia
Charlottesville, Virginia

Dr. Max K. Morris
Executive Director
Arthur Vining Davis Foundation
Jacksonville, Florida

Professor Gordon R. Munro
Department of Economics
Univer. of British Columbia
Vancouver, British Columbia

Ambassador Satya N. Nandan
Special Representative of the
Secy-Gen'l for Law of the Sea
United Nations

Mr. G. Clay Nettles
Foreign Service Officer
Department of State
Washington, D.C.

Mr. Myron Nordquist
Attorney
Herrick and Smith
Washington, D.C.

Ms. Patsy Oppenheim
Associate Dean
School of Law
University of San Francisco

Amb. Francisco Orrego Vicuna
Embassy of Chile
London, England

Dr. Willy Ostreng
Director
Fridtjof Nansen Institute
Oslo, Norway

Professor Bernard H. Oxman
School of Law
University of Miami
Coral Gables, Florida

Mr. Joel R. Paul
Attorney
Graham and James
San Francisco, California

Commander Richard E. Peyser
District Legal Officer
U.S. Coast Guard
Honolulu, Hawaii

Ms. Rose Pfund
Associate Director
Sea Grant College Program
University of Hawaii

Dr. Renate Platzoeder
Stiftung Wissenschaft
und Politik
Munich-Ebenhausen, F.R.G.

Dean David Ratner
School of Law
University of San Francisco
San Francisco, California

Professor Eldon H. Reiley
School of Law
University of San Francisco
San Francisco, California

Prof. Stefan A. Riesenfeld
Boalt Hall School of Law
University of California
Berkeley, California

Mr. Roger Rosendahl
Finley, Kumble, Wagner, Heine,
Underberg, Manley, and Casey
Beverly Hills, California

Ms. Edna E. Rossiter
Representative of WFUNA
Houston, Texas

Mr. Frank Rossomondo
Rockville, Maryland

Mr. Howard Rubenstein
Office of Special Services
University of San Francisco
San Francisco, California

Mr. Phillip M. Saunders
Research Associate
Dalhousie Ocean Studies Prog.
Halifax, Nova Scotia

Ms. Jan Schneider
Attorney
Washington, D.C.

Prof. N.-J. Seeberg-Elverfeldt
Max Planck Institute
Hamburg
Federal Republic of Germany

Professor Dinah L. Shelton
School of Law
University of Santa Clara
Santa Clara, California

Mr. Anthony Slatyer
Legal Officer, South Pacific
Forum Fisheries Agency
Honiara, Solomon Islands

Dr. Hance Smith, Lecturer
Dept. of Maritime Studies
UWIST
Cardiff, Wales

Dr. Robert W. Smith
Office of the Geographer
Department of State
Washington, D.C.

Professor Louis Sohn
School of Law
University of Georgia
Athens, Georgia

Ms. Carol Stimson
Administrator/Editor
Law of the Sea Institute
University of Hawaii

Mr. Gerald A. Sumida
Carlsmith, Wichman,
Case, Mukai and Ichiki
Honolulu, Hawaii

Professor Geir Ulfstein
Institute of Fisheries
University of Tromso
Tromso, Norway

Professor Jon Van Dyke
Richardson School of Law
University of Hawaii
Honolulu, Hawaii

Mr. Edgar B. Washburn
Attorney
Washburn and Kemp
San Francisco, California

Mr. Edward Washburn
Attorney
Washburn & Kemp
San Francisco, California

Mr. Peter Watson
Attorney
Lawler, Felix and Hall
Los Angeles, California

Professor D. Cameron Watt
Sea-Use Programme
London School of Economics
and Political Science

Mr. Conrad Welling
Ocean Minerals Company
Mountain View, California

Mr. John R. Winzler
President
Winzler and Kelly
San Francisco, California

Professor Warren Wooster
Institute for Marine Studies
University of Washington
Seattle, Washington

Ms. Esther C. Wunnicke
State of Alaska
Dept. of Natural Resources
Juneau, Alaska

Mr. Frederick Wyle
Counsel to Government of
Fed. States of Micronesia
San Francisco, California