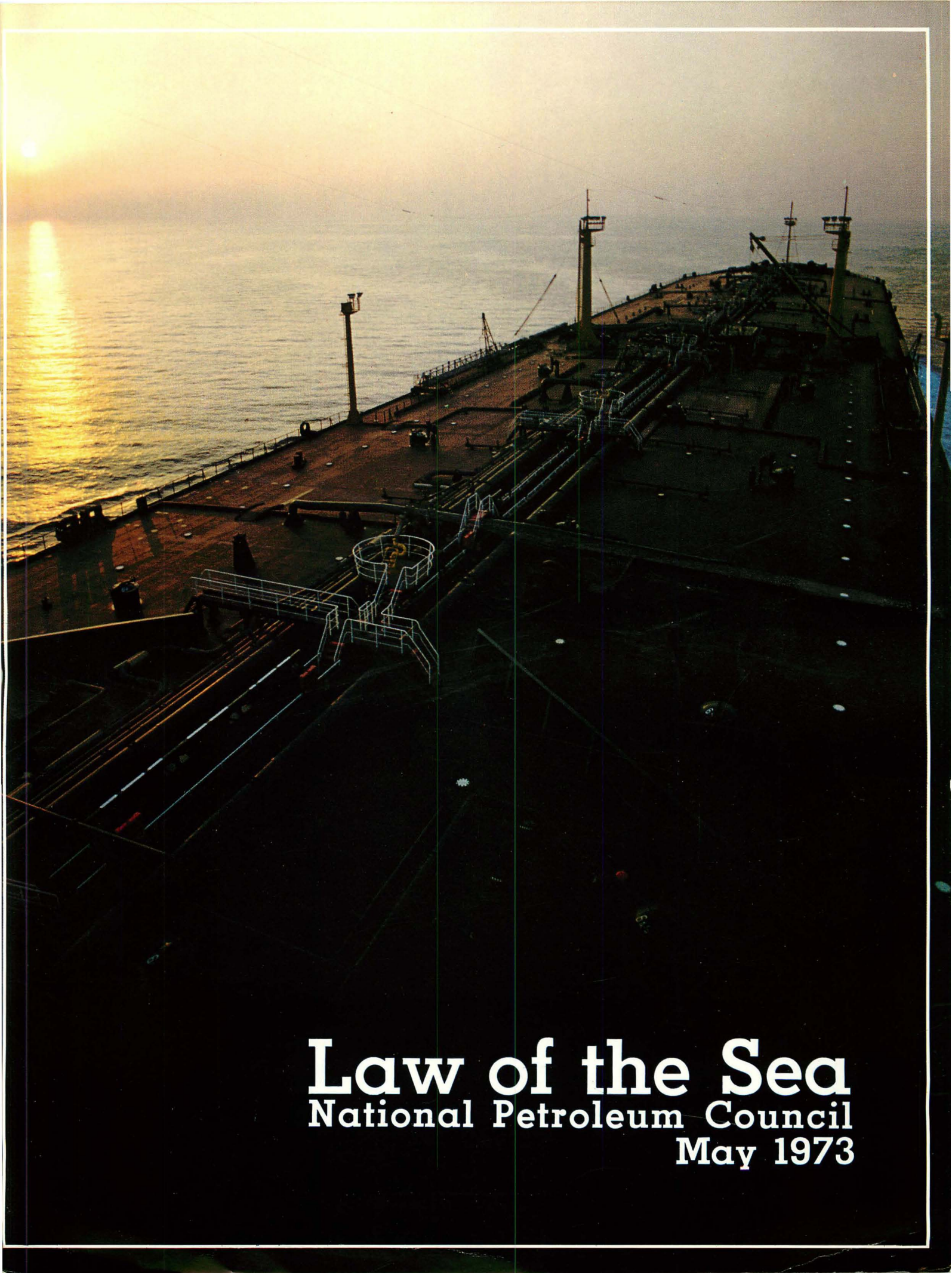

Law of the Sea

National Petroleum Council

May 1973

Law of the Sea

Particular Aspects Affecting the Petroleum Industry

May 1973

Prepared by
The National Petroleum Council's Committee on
Petroleum Resources Under the Ocean Floor
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with the assistance of
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Cover photo: 250,000 DWT tanker, *Esso Scotia*
Courtesy Exxon Corporation

PREFACE

The National Petroleum Council, an industry advisory body representing virtually all sections of the U.S. oil and gas industries, was established by the Secretary of the Interior on June 18, 1946, pursuant to a directive of the President of the United States. The purpose of the Council is to advise, inform and make recommendations to the Secretary of the Interior with respect to matters relating to petroleum or the petroleum industry submitted to it by the Secretary.

On September 15, 1972, the Council was requested by the Department of the Interior to undertake this study, *Law of the Sea-Particular Aspects Affecting the Petroleum Industry.* The NPC's Agenda Committee unanimously recommended that the study be undertaken and it was referred to the existing NPC Committee on Petroleum Resources Under the Ocean Floor, chaired by Wilton E. Scott, Chairman of the Board, Tenneco Oil Company. The Committee is assisted by a Technical Subcommittee, headed by Dr. Hollis D. Hedberg, Exploration Advisor, Gulf Oil Corporation, and a Legal Task Force, chaired by Cecil J. Olmstead, Vice President, Texaco Inc. (A complete listing of members may be found in Appendix B.) The report is the third in a series which has been completed by the Council regarding oil and gas development on the continental margins in respect to international negotiations being conducted by the United Nations Seabed Committee preparing for the forthcoming Conference on the Law of the Sea.

This report expresses the consensus of the membership of the National Petroleum Council. Association of representatives of the Department of the Interior and other government agencies with the deliberations of the Council on this subject does not connote endorsement of the recommendations expressed by the Council in this report. The National Petroleum Council recognizes that the military establishment is highly dependent upon adequate petroleum supplies for its mobility, but beyond that aspect, has excluded from this report any discussion of military implications of ocean area uses. The views expressed in the report are those of the Council and do not necessarily reflect the views of the Department of the Interior or of the United States Government.

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INTRODUCTION

A. The Study Assignment

Following two earlier requests from the Department of the Interior regarding oil and gas development on the continental margins, Assistant Secretary Hollis M. Dole, by letter of September 15, 1972, addressed to Mr. H. A. True, Jr., Chairman of the National Petroleum Council, requested the Council to undertake a further study and to report on matters relating to the Law of the Sea, including seabed mineral resources.* In his letter, Mr. Dole writes:

> In order to assist the Department of the Interior in the continuing preparation for the scheduled 1973 Law of the Sea Conference, the National Petroleum Council is requested to prepare a further study which should consider the question of navigation in coastal waters and international straits and the question of security of investment in overseas and domestic offshore areas. In conjunction with the latter, it would be helpful if special attention could be paid to the issue of compulsory settlement of disputes.

The letter refers to the projected increasing dependence of the United States on imported petroleum and the need to reduce that dependence as well as to stabilize the conditions under which petroleum will be produced abroad and exported to the United States. In his letter, Mr. Dole points out that:

> In this connection, the U.S. Representative to the United Nations Seabeds Committee on August 10, 1972, advised the United Nations that it is essential that Coastal State jurisdiction over mineral resources of the continental margins be subject to international standards, including navigation in coastal areas, pollution prevention, protection for the integrity of investments and the compulsory settlement of disputes.

The remarks of Mr. John R. Stevenson, U.S. Representative to the United Nations Seabed Committee, made in the Plenary Session of this Committee on August 10, 1972, included the following: †

> In order to achieve agreement, we are prepared to agree to broad Coastal State economic jurisdiction in adjacent waters and seabed areas beyond the territorial sea as part of an overall Law of the Sea settlement. However, the jurisdiction of the Coastal State to manage the resources in these areas must be tempered by international standards which will offer reasonable

* The letter is attached as Appendix A.

† See Appendix C for complete text of Mr. Stevenson's statement.

prospects that the interests of other States and the international community will be protected.

With regard to international treaty standards, he went on to say:

> When a Coastal State permits foreign nationals to make investments in areas under its resource management jurisdiction, the integrity of such investments should be protected by the treaty. Security of tenure and a stable investment climate should attract foreign investment and technology to areas managed by developing Coastal States. Without such protection in the treaty, investment may well go elsewhere.

He also urged compulsory settlement of disputes arising from ocean uses as follows:

> International standards such as those I described are necessary to protect certain noncoastal and international interests, and thus render agreement possible. AccordinglYt effective assurances that the standards will be observed is a key element in achieving agreement. Adequate assurance can only be provided by an impartial procedure for the settlement of disputes. These disputes, in the view of my delegation, must be settled ultimately by the decision of a third party. For us then the principle of compulsory dispute settlement is essential.

Because a Conference on the Law of the Sea offers an opportunity to stabilize factors relating to the production, transport and consumption of petroleum-factors essential to providing for worldwide energy needs-the Council has approached this assignment with the sense of obligation and urgency required by the significance of the subject matter.

B. Background

As was emphasized by President Nixon in his statement of May 23, 1970, on U.S. Oceans PolicY, nations are facing issues of momentous importance respecting uses of the oceans. The decisions that nations make in the coming Law of the Sea Conference will affect the global economy and international security for decades to come.

Since 1967, the United Nations has been concerned with the subject of peaceful uses of the seabed and the ocean floor beyond the limits of national jurisdiction as well as other related issues. By 1970, its consideration of the subject had reached a stage which prompted the General Assembly to decide to convene a Conference on the Law of the Sea in 1973. Resolution 2750 (XXV) adopted by the General Assembly for that purpose specified that the Conference will consider-

> international machinery-for the area and resources of the seabed and the ocean floor, and the subsoil thereof, beyond limits of national jurisdiction, a precise definition of the area *at* and a broad range of related issues including those concerning the regimes of the high seas, the continental shelf, and territorial sea (including the question of its breadth and the question of international straits) and contiguous zone, fishing, and conservation of the living resources of the high seas (including the question of preferential rights of Coastal States), the preservation of the marine environment (including, *inter alia*, the prevention of pollution), and scientific research.

The preparatory work for the Conference is assigned to a 91-member Committee on the Peaceful Uses of the Seabed and Ocean Floor Beyond the Limits of National Jurisdiction.

A Conference and Convention on the Law of the Sea covering the broad range of topics envisaged must surely have a marked influence upon the offshore exploration, production and transportation operations of the petroleum industry. These petroleum industry operations have an important impact on the economy and well-being of the United States and, indeed, of all nations. A Law of the Sea Conference will provide a distinct opportunity for achieving results to help solve the energy problems faced by highly industrialized consumer countries and to assist further the economic growth of the less developed countries.

C. Earlier NPC Reports

At the request of the Department of the Interior, the NPC's initial study respecting seabed matters was undertaken in 1968 and completed in 1969.* This Report provided a comprehensive analysis of the complex problems involved in the exploration and development of oil and gas resources from beneath the ocean floor, with careful consideration of U.S. national energy policy objectives and of geological, technological, economic, legal and multiple-use aspects. In this Report the NPC concluded, among other things, that existing international law, conventional and general, recognized the jurisdiction of Coastal States over the exploration for and development of the mineral resources of the entire continental margin off their coasts.

In response to a further request by the Department of the Interior in August 1970, the NPC prepared a supplemental study to the 1969 Report analyzing and commenting upon a proposed U.N. Convention on the International Seabed Area presented by the U.S. Government as a working paper on August 3, 1970, at the summer session of the U.N. Seabed Committee in Geneva, Switzerland.† In this Report, the Council endorsed the following five principles enunciated in the President's Statement of May 23, 1970, on U.S. Oceans Policy regarding the exploitation of seabed resources:

> [1] the collection of substantial mineral royalties to be used for international community purposes, particularly economic assistance to developing countries . . . [and the establishment of] general rules, [2] to prevent unreasonable interference with other uses of the ocean, [3] to protect the ocean from pollution, [4] to assure the integrity of the investment necessary for such exploration, and [5] to provide for peaceful and compulsory settlement of disputes.

This NPC Report recommended that the United States and other Coastal States retain jurisdiction over the mineral resources of the continental margins off their coasts and not relinquish such jurisdiction to an international organization and the Council reaffirms that recommendation.

D. World Energy Outlook

The particular significance to the petroleum industry of matters relating to the Law of the Sea, including seabed oil and gas development, is emphasized by the rapidly growing worldwide need for energy and the fact that much of the world's petroleum supply must necessarily be transported by ocean tanker from producing to consuming countries.

The efforts of all countries to improve their standards of living have sharply increased the demand for energy, particularly that supplied by petroleum. This increase in demand will be especially true of the developing countries. It is projected that, for the foreseeable future,

* NPC, *Petroleum Resources Under the Ocean Floor* (March 1969).

† NPC, *Petroleum Resources Under the Ocean Floor-Supplemental Report* (March 1971).

increases in energy needs for developed countries may increase at a rate of about 5 percent annually. In the developing countries, which account for about 70 percent of the world's population, the yearly rate of increase will be far higher.

The National Petroleum Council, in its recent study, *U.S.* Energy *Outlook,* estimated that total Free World demand for liquid hydrocarbons will more than double from 40 million barrels per day (MMB/D) in 1970 to almost 88 MMB/D by 1985.* Close to 70 percent of this oil will be transported on the world's oceans.

International oil supply patterns will be influenced by many factors, including (1) the geographical distribution of oil reserves, (2) political and economic conditions, (3) the rate and ultimate amount of reserve additions, (4) price competition, (5) quality and relative refining values of alternative crude supplies, (6) security considerations, (7) the need for diversified energy and crude sources, (8) changes in geographic patterns of demand, (9) environmental considerations, and (10) the rate of development of alternative energy sources and technology.

Taking these factors into account, the National Petroleum Council, in its U.S. Energy Outlook Report, concluded that:

- *Existing reserves coupled with the non-Communist World resource base remaining* to *be discovered,* as *it is presently appraised, are sufficient* to meet *requirements* up to 1985.
- *Assuming that political and* economic *conditions throughout the non-Communist World will continue* to *provide rewarding investment opportunities, it is well within the geological and technical capability of the international oil industry* to *add in the range of 450* to *550 billion barrels of oil* to *proved non-Communist World crude oil reserves during the 15-year period* 1971-1985. *Any events* or *conditions that adversely affect the political* or *economic climate will have* a *negative impact* on *future oil finding and development.*
- *Finding and developing this range of gross additions* to *proved non-Communist World crude oil* reserves *in the period through 1985 will* depend, to a *large extent,* on *the oil industry's ability* to *attract* or *generate large amounts of capital. This situation will be complicated by* a *variety of uncertainties in both domestic and foreign government* energy *policies with* regard to *increased taxation, nationalistic foreign government policies and actions, and the ultimate impact of current demands* for *participation in oil operations by governments of foreign producing countries. Also, restraints* on *capital recovery and possible future currency exchange adjustments* may *add* to *the already* large *risks and adversely affect* long-term *profitability and, ultimately, the oil industry's ability* to *provide the* required *supplies during this period.*
- *The cost* of *finding, developing and supplying the volume of oil* required *through* 1985 *will likely increase sharply over the intervening years. There is not* an *endless supply of so-called "low cost" oil -even in the Middle East.* New *increments of crude oil producing capacity will be* more *and* more *costly* as *much of the new producing capacity will have* to come *from offshore and Arctic regions.* New *supplies from these areas will be* more *expensive than existing reserves because of the high costs*

* NPC, *U.S. Energy Outlook, A Report of the National Petroleum Council's Committee* on *U.S. Energy Outlook* (December 1972), Chapter Twelve, Table 154.

associated with exploring and producing oil in these harsh environments *and with meeting their* more *stringent environmental standards. Even in Middle East countries, future new production will likely* come *from smaller, less productive -and therefore higher* cost-reserves *than those now supplying much of the* present *production.**

Developed and developing countries, consuming and producing countries, and the international oil industry that serves all countries have differing interests with regard to petroleum. In the face of accelerating demand for petroleum, however, the common interest in the discovery, development and transport of these resources far outweighs any differences that might lie between them.

E. Recent United Nations Developments

The U.N. Seabed Committee, perhaps more properly referred to as a preparatory committee for the U.N. Law of the Sea Conference, continued its work by holding two sessions in 1972, the first in New York in March and the second in Geneva in July and August. The most noteworthy accomplishment of these sessions was an agreement on a list of subjects and issues to form the basis of an agenda for the Law of the Sea Conference.† Review of this list shows that matters referred to in Secretary Dole's request letter are included in the proposed Conference agenda.

Another accomplishment was the establishment of a working group on the international regime, composed of 33 members, to prepare draft treaty articles giving effect to the Declaration of Principles adopted by General Assembly Resolution 2749 (XXV) in 1970. These principles, expressed in general terms, were accepted without a single dissenting vote. However, the fact that they embraced fundamental issues on which governments hold widely divergent views became evident when the working group undertook to translate them into draft treaty articles. This work, which is still in a preliminary stage, was generally considered useful and indicative of some progress in that it clarified positions and identified differences. It also evidenced a genuine desire on the part of delegations to come to grips with fundamental issues in a constructive manner and to begin effective preparation for a Law of the Sea Conference.

The General Assembly, at its 27th session in 1972, reviewed the work of the Seabed Committee and requested it to hold two further sessions in 1973 with a view to completing its preparatory work for the Law of the Sea Conference. By Resolution 3029 A (XXVII), the Assembly requested the Secretary General to convene the first session of the Law of the Sea Conference in New York for a period of approximately 2 weeks in November/December 1973. This first session is to be limited to organizational matters such as the structure of the Conference, election of officers and adoption of an agenda. The Resolution calls for the second session of the Conference to deal with substantive work, to be held at Santiago, Chile, in April/May 1974. At its 28th session in 1973, the General Assembly will again review the progress of preparatory work for the Conference and will consider any further matters requiring decision in connection with the Conference.‡

At its 27th (972) session, the General Assembly also took important actions on the recommendations of the Stockholm Conference on the Human Environment and other related matters. It established by Resolution 2997 (XXVII) the following: 0) a Governing Council for Environmental Programs to report annually to

* *U.S. Energy Outlook,* pp. 260-26l.

† See Appendix D, "List of Subjects and Issues Relating to the Law of the Sea."

‡ U.N. Doc. A/PV.2114 (December 18, 1972), p. 38.

the General Assembly through the Economic and Social Council, (2) an environment secretariat headed by an Executive Director, and (3) a voluntary environment fund.* An Action Plan consisting of 109 recommendations was referred to the Governing Council for appropriate action through Resolution 2994 (XXVII), in which governments were also reminded of those recommendations requiring action at the national level.†

Nine recommendations of the Action Plan dealt specifically with marine pollution, one of the subjects of this Report. RecomrLendation 92 on marine pollution states in part:

> That Governments collectively endorse the principles set forth in paragraph 197 of Conference document A/CONF.48/8‡ as guiding concepts for the Conference on the Law of the Sea and the Inter-Governmental Maritime Consultative Organization (IMCO) Marine Pollution Conference scheduled to be held in 1973 and also the statement of objectives agreed on at the second session of the Intergovernmental Working Group on Marine Pollution which reads as follows:
>
> > The marine environment and all the living organisms which it supports are of vital importance to humanity, and all people have an interest in assuring that this environment is so managed that its quality and resources are not impaired. This applies especially to coastal area resources. The capacity of the sea to assimilate wastes and render them harmless and its ability to regenerate natural resources are not unlimited. Proper management is required and measures to prevent and control marine pollution must be regarded as an essential element in this management of the oceans and seas and their natural resources.
>
> That Governments take early action to adopt effective national measures for the control of all significant sources of marine pollution, including land-based sources, and concert and co-ordinate their actions regionally and where appropriate on a wider international basis....

It remains to be determined how effectively the new U.N. Governing Council for Environmental Programs and the environment secretariat will coordinate its functions and work with that of the U.N. Seabed Committee and any organization that may be established by the Law of the Sea Convention.

In March and April of 1973, the Seabed Committee held its third preparatory session in New York. In Subcommittee 1, the United States put forward a major new proposal that would bring into effect on a provisional basis, pending the entry into force of the Law of the Sea treaty, those parts of the permanent international regime and machinery relating to seabed development. The Committee approved a request made by the U.S. for a study by the U.N. Secretary-General of examples of past precedents for such action. Early and tentative reactions of other delegations were mostly favorable. Subcommittee 1's Working Group on the International Regime and Machinery completed its second reading of the draft treaty articles concerning general principles of the legal regime and began consideration of the first draft articles relating to the new international seabed authority to be established.

Subcommittee II, which deals with such questions as the economic resource zone, established a working group of the

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* U.N. Doc. A/PV.2112 (December 15, 1972), p.8.

† U.N. Doc. A/PV.2112, p. 6.

‡ See Appendix E, "General Principles for Assessment and Control of Marine Pollution."

whole and began a more refined debate on such issues as the territorial sea, straits and fisheries. In Subcommittee III, the United States presented a working paper to the Marine Pollution Working Group explaining the sources of pollution from vessels and urging exclusively international, rather than Coastal State, standards for marine pollution control. In addition, the Subcommittee established a new working group on scientific research and technology transfer that will begin its work during the 1973 summer session in Geneva.

CHAPTER ONE

INTERNATIONAL COMMUNITY INTEREST IN NAVIGATION

A. Background

Questions relating to navigation throughout the world's oceans are complex. They are made even more complex by the probability that negotiations leading to their resolution in a Law of the Sea Convention will be inextricably involved in other critical matters. These questions include the extent and quality of Coastal State jurisdiction respecting areas adjacent to its coasts, the nature of an international regime to regulate seabed resource development in the areas seaward of such jurisdiction and the security interests of States.

It is of vital importance that an accommodation of differing national interests among States in navigational questions be achieved. As the U.S. Representative to the U.N. Seabed Committee has emphasized, "The freedoms of navigation ... connect us as a single community; they embody our rights and interests in communicating with each other." * While it is now evident that some revision of international law regarding navigational rights is likely, it is essential that there be wide international agreement on such a revision.

* Statement presented to Subcommittee II of the U.N. Seabed Committee by Mr. John R. Stevenson on August 3, 1971.

Issues such as agreement on the nature and extent of a Coastal State's jurisdiction over seabed resources and the nature and extent of rights of passage through coastal waters and international straits are inseparable. Thus, wide agreement on international provisions governing such critical matters will be essential since all States are interested in and concerned with ocean use.

Coastal State jurisdiction in the area off its coasts in which it exercises agreed rights should be appropriately limited, so that vessels engaged in commercial navigation passing through the area will be unimpeded except for internationally agreed provisions relating to safety of operation, including ship design and construction, pollution control and compliance with internationally agreed standards for the accommodation of such navigation with other lawful uses of the marine area. Failure to reach broad international agreement on these matters could well result in extensive claims of jurisdiction by some Coastal States which would seriously impair the rights and legitimate interests of all States.

Questions of navigational rights have been made even more pressing with the assertion of the "archipelagic" doctrine. Under this doctrine, waters between even widely separated islands constituting an

archipelago are asserted to be either "internal" or "territorial" and, as such, subject to the jurisdiction of the Coastal State, thus further reducing or potentially eliminating the navigational rights of the international community.

Another way of attempting unilaterally to extend the jurisdiction of a Coastal State over navigation, referred to by the Canadian Delegate to the U.N. Seabed Committee as "functional jurisdiction," is the attempted exercise of Coastal State authority over defined activities taking place beyond the territorial sea. Such exercise of Coastal State jurisdiction has been frequently undertaken with respect to national defense and security, the protection of fishing interests, and pollution control. The exercise of such jurisdiction has already led to serious impairment of navigation. If this trend were to continue, it would create a "clear and present danger" of seriously conflicting rules among various Coastal States which maritime interests would find practically impossible to comply with because of the diversity of these rules.

If the international community cannot resolve its differences through internationally agreed standards, it seems certain that Coastal States will increasingly resort to inconsistent and irreconcilable unilateral actions. The danger of such unilateral actions is then very real -the consequences of failure to achieve internationally agreed standards are obvious, and the need for agreement is compelling.

The new Law of the Sea Conference should recognize fully, however, that Coastal States have important interests in matters involving the use of the marine environment, especially the waters and seabeds off their coasts. These interests should be defined and international rules developed which would afford them protection without hampering navigation in the area.

B. Interest of States in Unimpeded Commercial Navigation

All States have a vital interest in unimpeded commercial navigation on the world's ocec;ms. Every exporting and importing State is, and will remain, heavily dependent upon seaborne trade.

Petroleum tankers represent 45 percent of the total tonnage in international commerce on the world's oceans. The growing dependence of nations upon energy for the well-being of their peoples will result in increasing movements of petroleum between producing and consuming countries. Thus, it is highly important that the necessity for unimpeded movement of petroleum be recognized by all States and hence provided for in a Law of the Sea Convention in the international community interest.

The present magnitude of petroleum movement is evidenced by the extent of daily Free World oil movement during 1972, as shown below (in barrels):

- Exports from the Middle East to Europe-8,l15,OOO
- Exports from the Middle East to Japan and other Eastern Hemisphere -6,079,000
- Exports from North Africa to Europe -3,040,000
- Exports from the Caribbean to North America-2,04l,OOO
- Exports from West Africa to Europe -1,284,000
- Exports from the Caribbean to Europe and other Latin American countries-1 ,275,000
- Exports from the Middle East to North America-l,077,OOO
- Movements between other ports-6,088,000.

These daily movements in 1972 totaled about 29 million barrels.*

* Department of the Interior, Office of Oil and Gas, *Estimated International Flow ot* Petroleum *and Tanker Utilization:* 1971-1972 (May 1972).

Now, and for decades ahead, Japan and Western Europe, as major petroleum consuming areas, will be crucially reliant upon maritime commerce, including tankers. The petroleum exporting countries depend upon tanker movement for the producing revenues that provide for their economic development and growth. There is scarcely any part of the world which is not served by tankers for energy needs. Developing States have a growing stake in this commerce as their own industrial growth proceeds and their reliance upon the export or import of oil increases exponentially.

The United States is no exception. It is today dependent upon foreign sources for some 30 percent of its oil supply. It is anticipated that by 1985 the United States will be importing over 50 percent of its oil requirements of which 10 to 11 MMB/D will be waterborne imports of crude and products. According to the NPC U.S. Energy Outlook Report, "if ... the total waterborne oil requirements in 1985 were to originate in the Persian Gulf, a fleet of at least four hundred 250,000 DWT [deadweight tons] tankers would be required." * The Report also projects the importation of about 4 trillion cubic feet of liquefied natural gas annually by 1985. This would require the construction of about 90 highly specialized vessels, each having a maximum capacity of approximately 1 million barrels of oil equivalent.

With this estimated large increase in the movement of petroleum to the United States (which illustrates international movement generally), it will become more important to both producing and consuming nations that movement be consistent with internationally agreed standards, particularly reflecting the interests of Coastal States.

The cost of transporting petroleum from producing to consuming countries is a significant element in determining the price of petroleum products to the consumer. Economies of scale and concern for holding down costs of delivery of petroleum have heavily influenced crude oil tanker size. In less than a decade, we have seen the average tanker size grow from 21,187 DWT to 45,840 DWT. New crude tanker buildings in recent years have been almost all larger than 200,000 DWT, and tankers of up to 500,000 DWT are now under construction. Still larger ones have been designed.

Examples of savings in transportation costs of crude oil, according to the U.S. Energy Outlook Report, are as follows:

> *If, for example, Persian Gulf oil* were *delivered* to *existing U.S. ports,* 50,000 to 70,000 *DWT tankers would have* to *be used. The estimated transportation cost would be in* excess *of* $9.00 per *ton. Figure 107* [see *chart below] shows that* a 250,000 *DWT tanker could deliver the same ton of oil for about* $6.55. *However, until such time* as deepwater *terminals are built-again using the Persian Gulf/U.S. East Coast example-VLCC's [very large* crude *carriers] will be used* for *the majority of the voyage* to *neighboring foreign* deepwater *terminals (e.g., Eastern Canada* or *the Bahamas) with* 50,000 to 70,000 *DWT tank ships being used for transshipment into U.S. ports. .Figure 107 shows that such* an *arrangement requires* a $0.50 to $0.70 *increase* per *ton in transportation charges.* †

Similar comparisons would, of course, be applicable to other delivery points.

Economical transport and the movement of petroleum generally require passage of crude oil tankers through coastal waters worldwide and through principal

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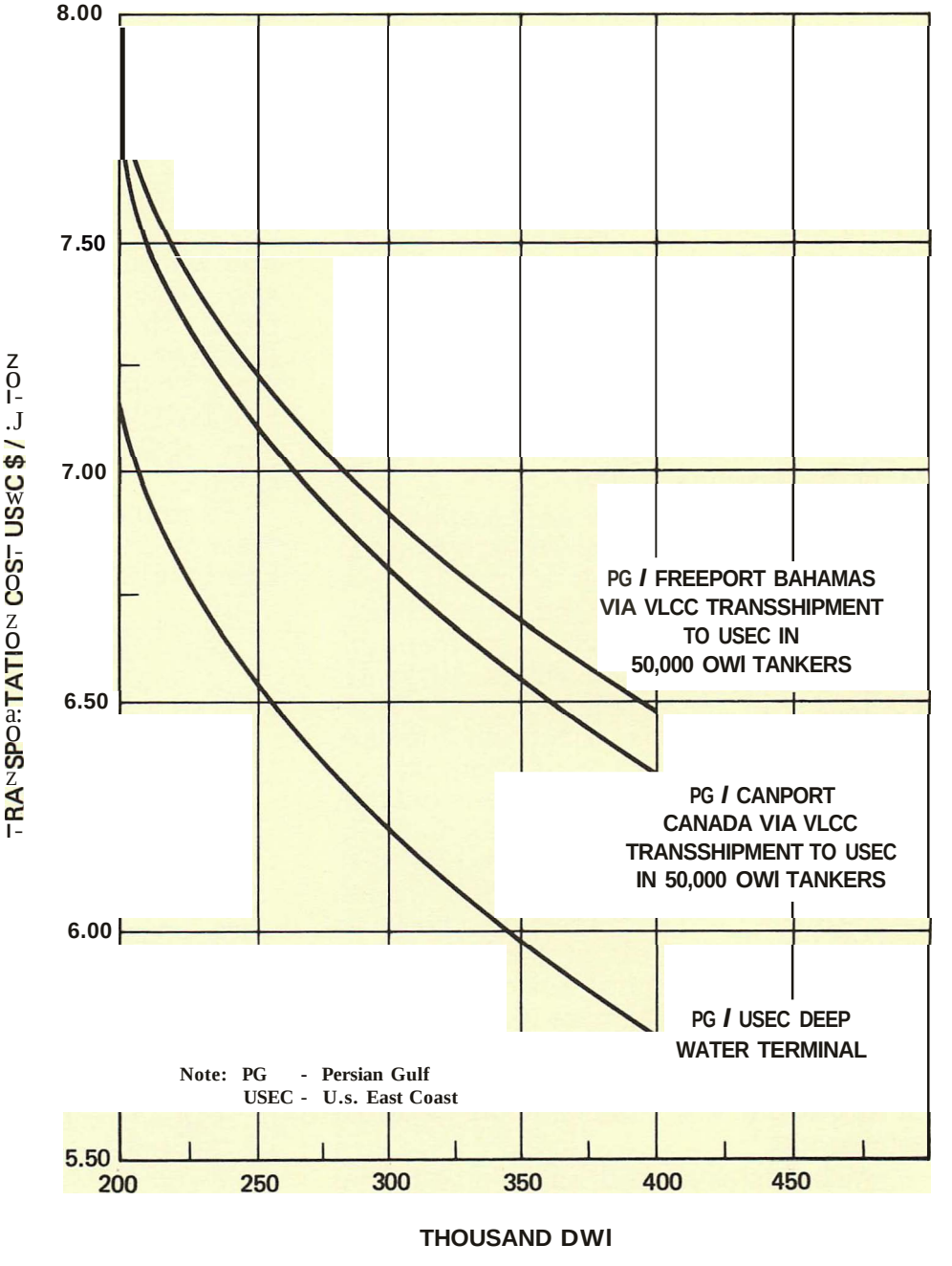
• *U.S. Energy Outlook*, p. 283. The figures used including oil import requirements are based on the Case III (intermediate case) estimates in the Report.

† *U.S. Energy Outlook,* pp. 282-283.



Transportation Costs to U.S. East Coast (USEC) from Middle East VLCC Transportation Costs Including Terminalling and Transshipment Costs, 1975-1985.*

international straits. There are few alternate routes available to VLCC's, and those that are available have serious cost consequences. In the absence of international agreement, these routes could entail political risks as well.†

The principal sources of Free World

* *U.S.* Energy *Outlook,* Fig. 107, p. 283.

† See Appendix F, "Straits Used by Tankers and Alternate Routes."

crude oil outside North America are found presently in the Middle East, North Africa, West Africa, Indonesia and Venezuela, with the West Coast of South America showing promise. In addition, the world's continental margins are among the most promising frontier areas for oil and gas. Alaska and Arctic Canada will constitute significant crude oil and gas sources when pipelines or alternate transportation plans become realities. While today's largest markets for world crude oil are North America, Western Europe and Japan, other areas are becoming significant markets for oil as their economies industrialize and the standards of living of their people improve.

The principal straits used by tankers are the Straits of Bosporus-Dardanelles, Dover, Florida, Gibraltar, Hormuz, Lombok, Luzon, Malacca-Singapore, Mozambique, Skagerrak, and, should the Suez Canal be opened, Bab el Mandeb. While there are many other straits, these are the most important from the standpoints of traffic density and economic movement of goods by sea. Significant change in either the location of the supply source or of consumption of crude oil could bring about a major change of trade routes.

In summary, unimpeded commercial navigation for the international community upon the world's oceans remains indispensable for international commerce, communications and peaceful relations among States. Freedom of commercial navigation-transportation of goods and commodities by ship-is contributing greatly to the economic growth of all States. For today's developing countries, such freedom and transport will be essential to their economic growth and improving standards of life. Unimpeded commercial navigation will be necessary for the export of commodities from the developing countries which will provide earnings for their development.

C. Existing International Law Relating to Navigation

The previous discussion has emphasized the interest of all States in the general matter of continuous and safe passage of maritime commerce and indicated those straits which are of critical importance. The extent to which existing international law is adequate to ensure such passage has become increasingly subject to question. From a review of existing law, * it is clear that international agreement on the extent of Coastal State rights relating to navigation in waters adjacent to their coasts is essential if a necessary balance is to be achieved between the needs of such States and the requirements of international navigation. Such agreement would have to embrace the rights and duties of maritime commerce passing not only through territorial seas and straits, but also through those areas subject to the "economic" jurisdiction of Coastal States and through archipelagic waters.

Centuries of effort have contributed to the growth of law in most of these respects. With the possibility of impending change in the jurisdictional interests of Coastal States in the marine areas off their coasts, it is imperative that commercial navigational rights in such areas be recognized and stabilized for the benefit of all nations.

D. Conclusions and Recommendations

A principal objective of the U.S. Government in the Law of the Sea Conference and Convention should be to obtain international agreement confirming the principle that the merchant vessels of all nations enjoy a right of unimpeded navigation on the world's oceans. This right should be subject to internationally agreed rules and regulations relating to safety including ship design and con-

* See Appendix G, "Existing Law Relating to Navigation."

struction and pollution prevention, with particular attention to the special concerns of Coastal States in waters adjacent to their coasts. The exercise of this right of navigation must be in harmony with other lawful uses in the area and subject to internationally agreed standards and procedures for accommodating conflicts between uses, should they arise.

It is the considered opinion of the National Petroleum Council that the interests of the international community, including those of the United States, would be better served by departing from the earlier use of terms regarding navigation such as "innocent passage" and "free transit," insofar as commercial navigation is concerned. Such concepts carry with them connotations which are not helpful to understanding the problems and needs of international transport. Instead, we suggest an approach concerned with facilitating the international community interests in trade and the general movement of commodities and goods, taking due account of the interests of Coastal States. This approach describes the nature of the navigational right of merchant shipping rather than referring to a formula or a label.

The recommendations of the National Petroleum Council regarding navigation from port to port are concerned with merchant vessels, particularly those engaged in the embarkation, transport and delivery of petroleum. Thus, this Report and its recommendations respecting international navigation relate principally to the needs of the international community for the movement of petroleum from producing to consuming countries. Although the Council believes the recommendations made herein to be fully consistent with the needs and rights of other navigational users of the oceans, this Report and its recommendations do not address themselves to the needs of any other such users.

In advancing these recommendations, it is assumed that the internationally agreed width of the territorial sea will not exceed 12 nautical miles. With an internationally agreed broad economic resources zone offshore Coastal States, a serious question arises as to whether there is justification for a territorial sea even as wide as 12 miles. Indeed, a territorial sea not exceeding 3 nautical miles would diminish the significance of the straits issue.

Following are the recommendations of the National Petroleum Council:

1. The first of these recommendations is fundamental: Merchant vessels engaging *in* mere *transit through straits used for international navigation enjoy* a *right of unimpeded navigation provided such vessels in transit are in compliance with internationally* agreed *safety standards, including ship design and construction and pollution prevention provisions, and internationally* agreed *standards* designed *to accommodate other* uses *in the area.*

2. The right of merchant vessels engaging *in* mere *transit should be* generally *applicable in territorial waters subject of* course to *the same standards* as *those applicable in straits* used *for international navigation.*

3. In waters seaward of the territorial sea including those of the area in which the Coastal State exercises limited resource *jurisdiction, the present character of the waters* as *high seas must be preserved with continued* freedom *of navigation.*

4. Coastal States should be authorized by the Convention to *determine compliance with internationally* agreed *navigation standards, including adherence* to *internationally prescribed safety lanes, in limited areas in the waters adjacent* to *their coasts* to *be internationally determined which under all of the circumstances necessitate the applicability*

of such standards. The interests of all States in freedom of navigation, however, require that prompt procedures be agreed upon* so as *to permit the immediate release of* a *vessel upon provision of appropriate guarantees to comply with* a *properly adjudicated order enforcing such internationally agreed standards. In the view of the National Petroleum Council, such disputes should be settled in accordance with the dispute settlement procedures to be provided for in the Law of the Sea Convention.*† *And in* a *case in which it is found under those procedures that* a *Coastal State, in exercising this limited enforcement jurisdiction against* a *vessel, acted arbitrarily* or *without reasonable cause, the vessel* owner or *cargo owner would be entitled to damages for any injury resulting from such exercise.*

5. Whatever general provisions of a *Law of the Sea Convention might be adopted regarding the status of archipelagic waters, the right of navigation* as *described herein should be applicable to merchant shipping transiting archipelagos. Such transit would only involve movement through the archipelago for the purpose of reaching points beyond.*

The U.S. position should take account of the particular interests of Coastal States in the safety of navigation and the problem of pollution in unusually congested coastal waters. Certain straits heavily used by merchant shipping are illustrative of such interests of the adjacent Coastal States. In such situations, the Law of the Sea Convention could provide for the establishment of regional commissions comprised of Coastal States flanking the area and other nations having an interest in navigation of those waters. These commissions could develop, in conjunction and consultation with the Inter-Governmental Maritime Consultative Organization (IMCO), international regulations relating to navigational safety, pollution prevention and the nature and funding of needed facilities.‡

* See Chapter Three, pp. 32-33 for recommendations as to limited jurisdiction of a Coastal State respecting pollution from vessels.

† See Chapter Five, "Settlement of Disputes."

‡ Note in this connection comments concerning regional pollution control organizations on p. 33.

CHAPTER TWO

INTERNATIONAL COMMUNITY INTEREST IN STABLE INVESTMENT CONDITIONS

In most economic zones under the jurisdiction of Coastal States beyond their territorial seas and in the international seabed area seaward of such zones, private investment and private enterprise will be needed for the development of mineral resources. It is not the purpose of this Report, however, to argue the case of private enterprise and private investment against publicly owned ventures and planning. The benefits of large private capital investments in offshore areas-such as those in the North Sea, the Gulf of Mexico and the areas off the coasts of West Africa, the Middle East, Indonesia, Australia and Southeast Asia -have been dramatically demonstrated in recent years.

A. Area of Coastal State Resource Jurisdiction

Acceptance by the United States of "virtually complete Coastal State resource management jurisdiction" in adjacent seabed areas is conditioned, *inter alia*, on the establishment of "international treaty standards to protect the integrity of investment." * It is the view of the National Petroleum Council that such protection is demonstrably in the interests not only of investors and their governments but also of all other States-particularly those Coastal States which are concerned with resource development of the seabeds adjacent to their coasts. This conviction is based not only on the necessity of maintaining stability for the effective development of offshore areas but also on the limited availability of capital to meet the enormous capital requirements for such development and the consequent likelihood of selectivity in the use of such capital in high risk areas.

Apart from the overall interests of the international community in the stability of investment conditions and the free flow of capital, technology, know-how, goods and commodities, the need for such protection must also be considered in the light of several key factors.

The decision whether or not to develop the mineral resources of an adjacent seabed will, of course, lie with the Coastal State. When a Coastal State decides to open an offshore area for development, it will have the choice of (1) organizing exploration and exploitation through its own government agencies, (2) granting exclusive rights to private operators, or (3) providing for a form of organization that will combine both pri-

• See Appendix C, Statement of Mr. John R. Stevenson.

vate and public interests. Whichever method is elllployed, large amounts of capital will be required.

Except in a few situations outside the developed countries, such capital must come largely from foreign sources. Efforts to obtain capital for offshore operations in one country or area will have to compete not only with the demands on the capital markets of the petroleum industry for its operations in other areas but also with those of all other users of capital, including other energy industries and governments themselves.

A primary source of capital for offshore and other operations, in developing and developed countries, is the oil industry itself. Apart from funds internally generated, established companies obtain capital from outside sources in the form of long-term or short-term loans and by means of equity capital. Credit would normally be provided on the security of a company as a whole and risk capital on the basis of its overall operations and prospects. The latter would, of course, largely depend on appraisals by potential investors of sufficiently attractive earnings.

At the same time that rapid development of offshore areas is taking place, other sources of capital are emerging. At times, institutional funds are available in the form of credits secured by future production. New ventures formed especially for the exploitation of particular areas may meet their own capital requirements by public issues. Drilling contractors as concessionaires may themselves finance operations by means of offering participations in offshore ventures. In addition, a major source of capital appears to be developing on a large scale as a result of greatly increasing revenues flowing from the oil industry to governments of oil producing countries.

During the decade which ended in 1970, the oil industry's total capital expenditures in the Free World, including exploration expense, ranged from a low of $11.4 billion in 1961 to a high of nearly $21.5 billion in 1970. In 1971, the total was approximately $23.3 billion. On production and exploration alone, expenditures totaled approximately $78 billion in this II-year period.*

The comparisons shown in the table below illustrate capital expenditures of the Free World petroleum industry during the 10-year period 1961-1970 and in the year 1971, both as to overall expenditures and separately as to production and exploration. While the figures are primarily significant with regard to the actual search for and production of oil and gas, heavy expenditures are also required for ancillary activities such as the construction and operation of natural gas plants, pipelines, tankers, storage facilities, refineries and distribution facilities as well as for overheads and other intangibles. To facilitate the comparisons in the following tabulation, expenditures are differentiated by regions.

In the past 15 years, the entire Free World oil industry has met, on an annual average, approximately 79 percent of its capital requirements from its own internal sources. While it has historically looked to outside sources for no more than 21 percent of its requirements, the trend is definitely in the direction of greater needs from such sources. At the same time that this trend is developing, substantial increases in payments to governments have had their adverse effect upon earnings. Unless the industry's cash flow can be substantially increased, the industry will be even more dependent on outside sources to meet its capital requirements. Moreover, the increasing emphasis on high cost offshore operations underscores the prospect that the industry will have to obtain around 40

* Richard C. Sparling and Norma J. Anderson, with John G. Winger, *Capital Investments of the World Petroleum Industry*, 1971, The Chase Manhattan Bank (December 1972), pp. 24-25.

percent of its capital requirements from outside sources.*

Various estimates have been made of requirements of the industry during the years ahead. One recent estimate places the industry's total worldwide financial requirements at $1,000 billion for the 15-year period 1970-1985. These include capital spending, debt servicing and dividends. It is, of course, essential to maintain adequate dividend distributions if equity capital is to be attracted to an enterprise.

Of this total, as much as $600 billion might be required for capital expenditures. This figure is estimated on the basis of "normal inflation of not more than 2.5 percent per annum. If the inflation rate were to run as high as 5 percent, the capital expenditures required would probably reach $800 billion and increase total requirements well above $1,000 billion.

If earnings increased annually at a rate of 8 percent-approximately the growth obtained in the 1960's-some 60 percent of the $1,000 billion total would be met by internal generation. This would leave $400 billion to be obtained from external sources. Over the 15-year period, the average would be approximately $27 billion per annum, or roughly 7 times the amount raised from external sources on an average annual basis in the period 1955-1970. In 1971, the industry raised from $6 to $7 billion, both by borrowing and by equity financing. If $7 billion is taken as the starting figure at the beginning of the 15-year period, the industry might have to seek as much as $47 to $50 billion annually by 1985. It is anticipated that, even if an 8-percent growth rate in earnings could be maintained over this period, capital spending

* *Capital Investments of the* World *Petroleum Industry,* 1971, p. 5.

CAPITAL AND EXPLORATION EXPENDITURES*
(Billions of Dollars)

Areas	Production and Exploration		Total Capital and Exploration Expenditures	
	1961-1970	1971	1961-1970	1971
United States and Canada	51.4	4.8	84.5	9.5
Western Europe	2.6	0.6	22.6	4.2
Total	**54.0**	**5.4**	**107.1**	**13.7**
Other Western Hemisphere	5.7	0.8	11.5	2.1
Middle East	3.1	0.5	5.5	0.9
Africa	4.7	0.7	7.5	1.1
Far East	2.3	0.6	11.4	2.7
Total	**15.8**	**2.6**	**35.9**	**6.8**
Combined Total	**69.8**	**8.0**	**143.0**	**20.5**
Foreign Flag Tankers			13.5	2.8
Total			**156.5**	**23.3**

* *Capital Investments of the World Petroleum Industry,* 1971, pp. 24-31.

would have to be cut back in order to stay within the bounds of indicated availability, unless the industry's cash flow is increased sufficiently.

If the oil industry were not to mobilize and make available the capital and undertake the risks involved in offshore operations in all areas, it is doubtful that other investors would serve this function. The demands for limited funds would have to compete not only with the requirements of long-established and credit-worthy members of the oil industry itself but also with the tremendous claims on the capital markets by other potential users.

Where the industry itself resorts to the capital markets, many variables are involved, such as (1) the willingness of investors to meet demands of the industry in competition with opportunities for other forms of investment; (2) the security provided for various types of investment; (3) the ability of the industry to generate sufficient earnings to attract capital investment; and (4) the policies of governments relating to taxation, balance of payments, social demands, etc. Of particular interest to oil producing countries is the fact that as the cost of oil operations increases alternative sources of energy, such as coal, oil shale, tar sands and nuclear power, will be increasingly attractive to investment capital.

The prospect of a diminishing availability of capital for the petroleum industry in relation to rapidly mounting requirements (Le., the inability of the industry with inadequate profit margins to attract the requisite capital) compels the conclusion that oil companies will be increasingly selective in their investments. While costs, location and size of resource are normally regarded as determining factors, security of terms must be ranked among them. Faced with a choice between obtaining supplies from reserves and alternative sources in politically stable countries and the hazards of expropriation, nationalization and other confiscatory treatment in politically unstable areas, it must be anticipated that scarce capital resources will be employed in places where legal stability over long periods of time is indicated.

In the light of this situation, and regarding the great need for stable conditions worldwide in order to promote economic development, it is urged that every effort be made to obtain acceptance of provisions in a Law of the Sea Convention recognizing and ensuring an obligation on the part of Contracting Parties to observe international standards governing the protection of investments and other property in which foreign persons are substantially interested.

The need for this is emphasized by recurring debate in the United Nations and elsewhere on the subject of "permanent sovereignty over natural resources." Again and again, this theme is invoked by governments to justify expropriations of foreign-owned enterprises without adequate compensation, and indeed in many instances without any compensation at all. It is also invoked to justify repudiations of long-term contractual arrangements freely entered into by governments with foreign-owned enterprises.

It is apparently the belief of some governments that the nature of "natural resources" somehow justifies uncompensated takings of foreign-owned property rights and unilateral breaches of contracts relating to them, and somehow exempts the States taking such actions from rules of international law relating to the protection of foreign-owned property rights. These views have led to a series of General Assembly resolutions on the subject of "permanent sovereignty over natural resources," which are apparently designed to prejudice existing rules of international law and are frequently invoked to justify governmental actions contrary to such rules.

Nevertheless, despite the overwhelming voting power of the developing countries in the United Nations, relevant prin-

ciples of international law persist and are recognized. Thus, in General Assembly Resolution 1803 (XVII), which is the basis for subsequent resolutions and is frequently cited as justifying expropriatory and repudiatory actions, certain fundamental principles are affirmed.* It is provided in this resolution that, where the importation of foreign capital is authorized by a State, such capital and the earnings on it shall be governed by the terms of such authorization,

> . . . by the national legislation in force, and by international law. . . . Nationalization, expropriation or requisitioning shall be based on grounds or reasons of public utility, security or the national interest. . . . In such cases the owner shall be paid appropriate compensation, in accordance with the rules in force in the state taking such measures in the exercise of its sovereignty and in accordance with international law. . . . Foreign investment agreements freely entered into by, or between, sovereign states shall be observed in good faith. . . .

The importance of these provisions and the vital interest of all States in their observance is evidenced by the harmful consequences to a country whose government fails to adhere to them. It is not only the private party concerned which suffers when its property is taken without adequate compensation or its contracts with a government are violated. Any such rupture is certain to have damaging repercussions on other investments in the same country and deter future investors from embarking on ventures of great importance to the government concerned and the economic well-being of its people. It also disturbs the equilibrium of international trade and investment, fosters resentment in the international community, and leads to retaliatory measures that affect other States as well.

It is, of course, recognized and accepted that private concerns investing in foreign countries must respect the laws, policies and economic and social objectives of those countries and must abide by undertakings given to the governments of those countries in connection with the investments. In consultation with the host government, an investor should ensure that its investment fits satisfactorily into the economic and social development plans and priorities of the country. Most foreign investors encourage local participation in management, promote nationals to posts of increasing responsibility, and provide the training and experience that are prerequisite to such promotion. Whenever practicable, such investors should promote the technological capacity of the country, for example, by training local staff, assisting educational institutions and, where conditions for efficient research so allow, establishing suitable research activities in the country.

It is clearly in the interest of all States to encourage economic development. When private foreign investors undertake such development in a manner compatible with the economic and social policies of the country concerned, the observance by all parties of international law standards, including adherence to freely negotiated contracts, is essential. The sanctity of obligations is a basic norm of international law, and its application to private investment contracts freely entered into was recognized and accepted by the U.N. General Assembly, as noted above. Unwillingness to adhere to the above-quoted stipulations of this U.N. declaration, or to accept the facilities relating to conciliation and arbitration currently provided by the World Bank must, therefore, not only indicate a reluctance to adhere to norms of international law, recently affirmed, but also

* The Resolution was adopted in December 1962 by a vote of 87 in favor, 2 opposed and 12 abstentions.

suggest to an investor legal and political instability in the country evidencing such refusal.

If the flow of capital to the exploration and exploitation of mineral resources in a large number of offshore areas is to be actively promoted, in the interests of meeting the energy requirements of the United States and other countries and promoting the economic development of the entire international community it is vital, for the reasons set out above, that the Law of the Sea Conference adopt appropriate treaty provisions recognizing the rights and obligations of States in relation to such investments and operations. In view of the great benefits to be derived by all States from achieving broad diversity of supplies and ensuring stability of supplies, and in view of the fact that a substantial portion of petroleum resources are estimated to be in offshore areas to be covered by the Convention, the U.S. Government is urged to make every possible effort to obtain such adoption.

B. Area Beyond Coastal State Resource Jurisdiction

In the areas beyond Coastal State economic resource jurisdiction, it is assumed that private operators would be licensed either (1) by an international organization when sponsored by party States, as provided for in the U.S. draft treaty or (2) by individual States which (a) would have established their rights by registration with an international organization or (b) would have been licensed by such organization. From whatever entity the private party derives its rights, the same need for security would arise as in the case of rights granted by a Coastal State.

From the above discussion which reflects existing international law with respect to State contracts, it becomes clear that State grantors of such rights would be bound by their contracts with private parties and by principles of international law governing takings of private property and the duty to pay full compensation. The same principles would apply to contracts entered into with an international organization. That it would be bound by such contracts is evident not only from U.N. Resolution 1803 (XVII) referred to above but also from the U.N. Declaration on Principles of International Law concerning Friendly Relations and Cooperation among States which includes the provision that *If each* State has the duty to comply fully and in good faith with its international obligations.* If individual States are thus bound by their obligations, clearly an international organization created by them and deriving all its powers from them would be bound. Such an organization could not exist if it were not bound by the law which created it.

Nevertheless, because some States assert that the principle of sovereignty gives them, and a fortiori an organization created by them, an absolute right to repudiate or modify their engagements, it is important to provide in the Law of the Sea Convention that the organization as well as State parties are required to perform their obligations in accordance with agreements entered into by them and to respect the property rights of those with whom they contract. While such provisions would, as *stated*, be implied in any treaty establishing an international organization, it would be advisable to make them explicit at the present time.

C. Conclusions and Recommendations

All States have a genuine interest in an orderly expanding international economy characterized by the free movement of capital, know-how and technology and the flow of commodities and goods in international commerce. The interests of the developing countries are

* Resolution 2625 (XXV); 25 GAOR Supp. 28 (A/8028, 1970), pp. 122-123.

particularly involved in this process as their governments strive to enhance their own economic development and thereby improve the quality of life and their peoples.

As this Report has indicated, the continued flow of these elements of development to the developing countries has been seriously deterred by certain instances which have disregarded the fair treatment of foreign private investment-treatment that has violated the fundamental principles of international law.

The National Petroleum Council believes it essential to achieve broad understanding that the mobilization and availability of the vast capital sums and continually improving technology required to provide for the world's energy requirements have been seriously endangered by the failure of certain States to treat existing foreign private investments and agreements with foreign private investors in accordance with international law standards.

Thus, the National Petroleum Council strongly recommends that a Law of the Sea Convention dealing with the exploitation of the mineral resources of the continental margin under Coastal State resource jurisdiction and the deep ocean area beyond include provisions along the following lines:

1. *Integrity of Agreement between* a *State and* a *Foreign Investor*

An agreement between a *State and* a *foreign investor* or *operator for exploration and development of mineral resources in seabed areas subject to the economic jurisdiction of such State* or *with respect to which it is entitled to grant rights, whether in the form of* a *license, permit, concession* or *any other form, shall be binding, according to its terms, upon both parties.*

2. *Integrity of Agreement between* an *International Organization and* an *Operator*

An agreement between an *international organization and* an *operator for exploration and development of mineral resources seaward of the offshore areas subject to the economic jurisdiction of Coastal States, whether in the form of* a *license, permit, concession* or *any other form, shall be binding, according to its terms, upon both parties.*

3. *Taking of* an *Investment*

Should a *State expropriate* or *otherwise take* or *impair the investment of* a *foreign investor* or *operator in mineral resource development in* a *seabed area subject to its jurisdiction* or *with respect to which it is entitled to grant rights, such State shall promptly provide such investor* or *operator with compensation in* an *effectively realizable form representing the full value of the property and rights taken* or *impaired. Should there be any circumstances in which* under *the Convention* an *international organization might legitimately impair the rights of* an *investor* or *operator, such compensation shall be promptly provided as aforesaid.*

Disputes arising with respect to a particular investment or operation governed by this Convention including those involving private parties should be resolved under the dispute settlement procedures included in the Convention.*

* See Chapter Five, "Settlement of Disputes."

CHAPTER THREE

PROTECTION OF THE MARINE ENVIRONMENT

A. Sources of Marine Oil Pollution

Marine oil pollution has several sources, including various land-based activities, natural oil seepages, vessels of all sizes and types, and seabed resources exploitation. Land-based activities constitute by far the largest source, accounting for as much as 90 percent by some estimates.* The land-based pollutants include not only river-borne waste oil products from industrial operations, automobiles and refinery effluents, but also airborne hydrocarbons, resulting from vaporization of petroleum products, that are carried to the sea by wind and rain. The extent of natural oil seepages into the oceans is, of course, unknown, but there is evidence that it represents a substantial quantity. As pollution from onshore activities is beyond the mandate of the Law of the Sea Conference, and natural seepages cannot for the most part be contained, this discussion is confined principally to the two remaining pollution sources-vessel discharge and seabed resource exploitation. While these sources are of concern, they are significantly lesser sources of pollution than are the land-based sources noted above.

1. Vessel Discharge

Of the total oil pollution resulting from vessels and seabed exploitation, it has been estimated that more than 95 percent comes from vessels, as compared to less than 5 percent from seabed exploitation.t Studies indicate that oil pollution of the sea from vessels results mainly from operational (and often permissible) discharges of many kinds, rather than from major oil spills.

Oil tankers represent only one of the many classes of vessels causing oil pollution. International vessels over 1,000 gross tons can be grouped as follows:

- About 14,000 naval vessels of all types
- More than 11,000 dry cargo freighters
- About 4,500 tankers
- Approximately 3,400 bulk carriers
- Nearly 1,000 passenger-cargo ships.

* "Competence To Establish Standards For The Control Of Vessel Source Pollution," Working Paper Presented to the U.N. Sea-Bed Committee by the United States of America, April 2, 1973, p. 1 (A/AC.l38/SC,III/L.36).

t "Tankers and Ecology," Paper Presented by Joseph D. Porricelli, Virgil F. Keith and Richard L. Storch, at the Annual Meeting of the Society of Naval Architects and Marine Engineers, New York, *N.Y.,* November 11-12, 1971.

• Almost 1,000 refrigerated vessels.*

The total number of vessels under international registry regardless of size is about 55,000.

Additionally, there are more than 53,000 vessels of 1,000 gross tons or less in the U.S. registry, and it is estimated that more than 5 million pleasure craft are registered in the United States alone.

The pumping overboard of bilges and the discharge of raw sewage and food waste from these vast numbers of craft of all kinds clearly are major causes of pollution at sea. Bilge pumpings from all vessels are in the process of being brought under control or indeed eliminated by the development of onboard separators or the installation of holding tanks. The latter would be more comprehensive, but would also require additional construction of adequate disposal facilities at terminals, shipyards and marine facilities.

Routine tanker operations, primarily involving deballasting from cargo tanks and discharge of tank washing, are also causes of oil pollution. However, tanker operations are estimated to account for no more than 40 percent of all oil pollution from ships.† Most of this is believed to come from tankers that do not practice "load-on-top" procedures (described below) instituted by the international petroleum industry to combat pollution from discharges of oily tank washings or ballast.

Before load-on-top procedures, tankers which had delivered their cargoes cleaned their oil storage tanks at sea with seawater and dumped the resulting oily water into the ocean. This cleaning operation is associated with ballasting procedures and changes in types of oil to be carried. As an oil tanker unloads, it takes on seawater in its oil carrying tanks to provide ballast for the return voyage to a port of loading. Safe and stable navigation requires ballast of approximately 40 percent of the deadweight tonnage of the vessel. Ballast may, however, be increased to some 80 percent of vessel deadweight tonnage where extremes of weather are encountered. When the vessel arrives at the port of loading, this ballast must be discharged to make room for the cargo. To avoid discharging oil-contaminated ballast water in port, it previously was customary to flush out the tanks at sea on the ballast leg and take on clean ballast. But when load-on-top procedures are utilized, the oily water mixture is collected in a single tank in the ship, and the oil and water are separated. The water is then decanted and the oil remains in the tank. Another load of oil is then loaded-on-top of the existing oil. Although the discharge of oily wastes is still permitted under international law in certain areas of the oceans, 80 percent of the world's tanker fleet subscribes to load-on-top. As a result, intentional discharge of oil into the ocean from tankers is being significantly reduced.

Although oil spills resulting from tanker accidents tend to be widely reported, major spills (those involving 2,400 barrels or more) have in fact been relatively few in number. Oil spills from tanker accidents are estimated to account for only about 10 percent of the total sea pollution caused by all vessels.‡ It is fair to say, however, that these oil spills create more headlines.

Prevention of spills from tankers has been aided by several developments. Most new giant tankers are equipped with automatic loading controls that minimize the chance of a spill caused by human error during transfer of cargo. Good maintenance practices aboard ship and the sound basic design of the vessel are also important in the prevention of

* Naval vessel data from F. T. Jane, *Janes Fighting Ships*, 1968/1969 (1969); other data from U.S. Department of Commerce, Maritime Administration, Merchant *Fleets of* the *World* (June 30, 1972).

† "Tankers and Ecology."

‡ "Tankers and Ecology."

spills. In addition, improved education and training of ships' personnel and more stringent operating, navigation and traffic controls are helping to reduce the possibility of spills caused by collision or grounding. Improved transportation support services (weather forecasting and navigational aids, for example) are also helping to reduce the incidence of such accidents.

Significant advances have also been made in the control and cleanup of oil spills when they do inadvertently occur. Oil that is occasionally spilled during loading or unloading can now be contained by floating booms or air barriers and then removed from the water's surface. Sorbent materials are used effectively to control the spread of a spill. There is some evidence that certain microorganisms might be useful in degrading hydrocarbons and thus dissipating spills. Chemical dispersants are available and have proved useful in special situations.

Despite what has been accomplished, there remains a need for further research on containment and recovery of oil spills at sea. Current efforts underway in this area must be continued and expanded, and additional funds should be allocated for oil spill control research. This seems an appropriate area for continuing joint industry-government cooperation.

2. Seabed Resource Development

Although the possibilities for the recovery of a variety of minerals from the seabed have been widely publicized in the last few years, petroleum operations currently dominate marine mining and will be the subject of discussion here.

Offshore oil exploration and development do not cause significant pollution problems when properly conducted and controlled. As noted earlier, pollution from such operations is estimated to account for less than 5 percent of the total oil pollution resulting from both vessels and seabed development.

Of the primary activities involved in offshore oil development-geophysical surveying, drilling, producing and pipelining-only the last three have potential for oil pollution.

With regard to drilling and producing operations, pollution can result from blowouts during drilling or rupture of well casing due to storms or ship collision and from spillage of oil in storage at the surface. In order to minimize these possibilities, offshore oil facilities are built to withstand the severest storms and other marine hazards. Highly sophisticated, remotely controlled or automatically actuated safety devices are used in offshore operations. Improvements in preventive practices have reduced spills or uncontrolled oil flows from wells to rare occurrences. Of more than 16,000 marine wells drilled to date in U.S. waters, only 3 have resulted in a pollution hazard as a result of blowouts, and none has caused lasting environmental damage. For example, after the Santa Barbara incident, University of Southern California scientists in a comprehensive 2-year study reached the conclusion that no permanent damage resulted from the spill.*

The petroleum industry is dedicated to the prevention of such spills and to controlling them and minimizing damage from them if they unfortunately occur.

Moreover, the Government of the United States promulgates the rules and regulations by which the oil industry must operate on the Outer Continental Shelf.† That these regulations, procedures and practices have been effective in preventing serious pollution is shown by the very low incidence of accident

* D. Straughn, *Biological and* Oceanographic Survey *of the Santa* Barbara Oil *Spill-1969-1970*, Allen Hancock Foundation, University of Southern California, Two Volumes (1971). Other experts, however, question whether sufficient time has elapsed since the incident to determine the long-term impact.

† Outer Continental Shelf orders issued by the U.S. Geological Survey are pursuant to 30 CFR 250.11, 34 F.R. 13544, August 22, 1969.

in offshore operations. However, regulations cannot advance faster than technology. As technology is improved, regulations must be revised and updated. Optimurn regulation cannot be a static thing.

In the past, submarine pipelines have been used principally to transport oil and gas from offshore fields to shore storage and processing facilities. However, with the growing number of deepwater terminals and port facilities in recent years, submarine pipelines are being used increasingly for the transport of oil between these facilities and the shore.

Pipelines are a very safe method of transport. For example, over the entire U.S. pipeline system, losses from spillage are very low, about .006 percent of the volume moved annually.* Block valves, line pressure valves and automatic shutdown devices are among the safety equipment items that reduce the loss of oil when and if a leak should occur. Additional advances in safety equipment and operating procedures currently underway will reduce potential pollution from pipelines even further.

3. Land Sources

It is generally known that, by far, the greatest sources of marine oil pollutants originate on land, which may amount to as much as 90 percent, as noted above. The point of entry varies, but the discharge of pollutants into the ocean by rivers (mainly of domestic sewage, industrial wastes and agricultural runoffs) is the most serious. In addition, the concentration of population and industry at the ocean edge has led to significant discharges of sewage and wastes directly into the ocean. Pollutants from land such as lead, DDT and vaporized hydrocarbons are borne by the air and are also deposited in the ocean by fallout from the atmosphere.

B. Interests to be Accommodated by Pollution Control Standards

1. Vessel Discharge

In 1946, only about 200 million tons of oil were moved at sea by tankers. Today the volume has reached a rate of 1.5 billion tons per year and is growing by 160 million tons per year, only slightly less than the 1946 total transport rate. Substantially all countries have a stake in this trade in one way or another. There is, therefore, a widely shared interest not only in achieving adequate pollution controls for oil-carrying vessels but also in doing so without unnecessary expense, since costs must be borne by both exporting and importing countries. Efficiency in pollution control with respect to marine transport of petroleum would be greatly facilitated by international acceptance of certain standards, and it is important that the Law of the Sea Convention provide adequate inducements and benefits to assure acceptance of such standards by all States.

Acceptance of uniform worldwide standards in matters of design, construction and equipment for minimizing pollution hazards from tankers will help to keep down transportation costs. If each Coastal State were independently to establish its own standards, the result would be a crazy quilt pattern of requirements which would make compliance difficult and unnecessarily costly at best. Efficiency in the effective scheduling of available tanker tonnage is facilitated by the traditionally free access which vessels have to most ports in the Free World, which is the result of the general acceptance by most nations of internationally established vessel construction, safety and operating standards.

An example of nonuniformity in standards may be seen in recent U.S. legislation which authorizes the U.S.

* NPC, *Environmental Conservation-The Oil and Gas Industries,* Volume *One* (June 1971), p. 71.

Coast Guard to establish pollution control standards for vessels in U.S. waters and to enforce these standards for foreign as well as domestic vessels. The sewage retention facility requirements of the Water Pollution Control Act Amendments of 1972, Section 312, will impose restrictions on foreign vessels entering U.S. waters which will require vessel modifications to meet the requirements of U.S. law. The U.S. Coast Guard Pollution Prevention Program Regulations requires special provisions for retention of bilge wastes.* Similar controls under the Ports and Waterways Safety Act can be expected. This Report takes no issue with the merits of this U.S. legislation; it refers to it only to illustrate the difficulties that would be presented if all Coastal States were to adopt meritorious but different domestic standards. International standards of pollution control are thus necessary at the earliest possible date.

There is also need for widely accepted standards of liability for pollution incidents. If there were uniformity in such standards, one State would be more willing to recognize and enforce awards by courts of other States, and the tendency toward jurisdiction-shopping on the part of vessel owners faced with potentialliabilities would be minimized. The International Convention on Civil Liability for Oil Pollution Damage, recently developed by IMCO and now open for signature and ratification, provides the type of uniform standards that are required.t

International cooperation in the establishment and administration of cleanup funds for use after a pollution incident has occurred would help to provide effective and more economical action. Concerned governmental agencies appear to agree that such cleanup costs should be borne by the responsible party within imposed limits of liability rather than by the public in general. If a single adequate cleanup fund could be established, rather than having each State create its own cleanup fund, costs would be reduced and the matter of cleaning up facilitated.

A blueprint and mechanism for providing such funds on an international basis already exist in the form of the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage which was prepared in 1971 by IMCO and which is now open for signature and ratification.:j: The costs of cleanup could be reduced further by a system of underwriting contingent liability rather than maintaining substantial funds when they are not needed.

With regard to institutional arrangements for developing pollution control standards for vessels, the NPC believes IMCO to be the most appropriate organization because of its long experience and expertise in this field. IMCO is the only specialized agency of the United Nations concerned solely with maritime affairs. Its membership presently consists of government representatives from more than 70 nations. Other members of the United Nations, not presently members of IMCO, are free to join. It is headed by a Secretary General assisted by a professional Secretariat. Its main functions are carried out by an Assembly of member States and by a smaller Council, together with committees which have certain rulemaking and regulatory functions. These functions could be enlarged by agreement. The most significant of these committees is the Maritime Safety Committee. Pollution control conventions, as well as conventions establishing ship design standards, safe navigation practices and general ship safety, are developed by this Committee and its Subcommittees.

Its Legal Committee has developed the International Convention for Civil Liability for Oil Pollution Damage and the

* 33 eFR 155.330-360 (December 21, 1972).

t S. ada, *The International Law of the* Ocean *Development* (1972), p. 476.

:j: *The International Law of the* Ocean *Development,* p. 484.

International Fund for Compensation for Oil Pollution Damages discussed earlier and a third convention, the International Convention for Intervention on the High Seas, which would accord a State the right to take such measures on the high seas as may be necessary to prevent or mitigate imminent danger to its coastline when a maritime accident has occurred.

The Facilitation Committee deals with questions which concern the movement of persons or goods in international trade and is responsible for the acceptance of uniform standqrds for Bills of Lading and customs procedures, among other things.

In its 13-year historYt IMCO has developed several amendments to the 1954 International Convention for the Prevention of Pollution of the Seas by Oil for which IMCO has had responsibility. CurrentlYt IMCO is planning a Marine Pollution Conference for 1973 to draft a convention, the object of which will be to achieve, by the end of the 1970's, the complete elimination of willful and intentional pollution of the sea by oil and noxious substances other than oil and the minimizing of accidental spills.

The scope of responsibilities of IMCO are indicated in more detail in Appendix H. Mr. John R. Stevenson, while U.S. Representative to the U.N. Seabed Committee, reviewed the expertise and capabilities of IMCO in a statement to the U.N. Seabed Committee in Geneva on August 2, 1972, concluding that IMCO's responsibilities should be supplemented and supported and not replaced.*

2. Seabed Resource Development

Control of pollution which might result from the development of seabed resources is particularly the concern of the adjacent Coastal State. Pollution from such development would affect the adjacent Coastal State more heavily than any other, and conversely, the adverse economic impact of excessive pollution controls would be most strongly felt by the adjacent Coastal State through the increased cost of development resulting from them. Moreover, each Coastal State has an interest in coordinating its pollution control over the adjacent offshore seabed area with that over its land territory in order best to achieve results consistent with its national needs, goals and policies.

Furthermore, the different circumstances of individual Coastal States would lead to different attitudes with respect to pollution prevention controls on petroleum development. Developing countries may feel that their overall economies can less afford costly pollution control than would be the case with developed countries. Also, for example, a State with a seaside-tourist resource based economy is likely to hold different views than a State with an uninhabited coastline.

Nevertheless, in spite of the fact that it is the adjacent Coastal State which has the predominating interest in pollution control of petroleum development in any particular sea floor area of the continental margin, other States may also have interests to be served. Thus, for example, in the case of several countries bordering on an enclosed or semi-enclosed sea like the Baltic Sea or the Mediterranean, pollution off the coast of one country is likely to affect the other bordering countries. Moreover, because of the great need for petroleum, there is a common concern among nations for the development of the petroleum resources of the world's continental margins. Therefore, there is adequate reason to justify agreement by the international community on minimum pollution control standards. The interest of the international community in progress toward the development of the petroleum resources of the continental margins may also justify some international agreement on objective criteria to be applied by Coastal States in the event that they adopt do-

* See Appendix I for extract from this statement.

mestic standards more stringent than the international minimum standards.

Since there is no existing international agency to develop such pollution control standards, the Law of the Sea Conference should consider the establishment of an appropriate international commission to exercise this function.

C. Types of Pollution Control Standards

Generally speaking, there are three distinct types of standards for pollution control. First, some standards are cast in the form of equipment and operational specifications. These take the form of regulations which specify the detailed physical characteristics of equipment and operations and regulate or prohibit discharges of particular materials into the surrounding environment. Pollution control standards of this kind tend to be voluminous and technical. They also tend to reflect the technology existing at any particular moment and, therefore, are subject to constant evolution and change. An example of this type of standard is the Outer Continental Shelf Regulations of the U.S. Department of the Interior.*

A second type of standard comprises those which are cast in the form of definitions of desired environmental air or water quality characteristics and expressed in terms of permitted levels of specific pollutants. These represent a method for setting goals to which specification and emission type standards may be tailored. Uniformity is unnecessary and, in fact, undesirable because of widely differing environmental conditions from place to place. An example of standards of this kind is provided by the Air and Water Quality Control Acts adopted in the United States and amended from time to time.†

The third type of standard is the general definition of basic values to be served and the priorities to be established among such values. Agreement on such standards is necessary in order to establish the existence of agreement upon the goals to which more detailed standards are to be directed. The generality of such standards tends to permit universal acceptance and application. For example, the international community has taken a first step in developing general standards of this third type by the endorsement through the Stockholm Conference of the 23 General Principles for Assessment and Control of Marine Pollution.+

As to types of standards suitable for any treaty, only the third or general type, such as endorsed by the Stockholm Conference, can as a practical matter be adopted. This is for the reason that negotiations in the forum of a Law of the Sea Conference do not lend themselves to reaching agreement on technical details. The treaty should, however, establish the necessary international machinery for the promulgation from time to time of more detailed standards and operational procedures. It would appear desirable with respect to the standards relating to vessels that the existing U.N. consultative agency, IMCO, be used and that another organization, parallel to IMCO, be established for setting minimum international standards with regard to seabed resource development. Although it may be inappropriate to include any provision in the treaty relating to the subject of liability of private parties, certainly the treaty should avoid the inclusion of any provisions which are inconsistent with the principles relating to liability set forth below.

In a number of forums consideration has been given to one particular problem of vital importance in this field. This is the question of liability of legal persons other than States. Careful consideration

* 30 CFR 250 (1972).

† Pub. L. No. 88-206, 77 Stat. 392 (Dec. 17, 1963) [Clean Air Act], and amendments; Pub. L. No. 80-845, 62 Stat. 1155 (June 30, 1948) [Water Pollution Control Act], and amendments.

+ See Appendix E.

has been given to this matter by the Congress of the United States and by IMCO in the process of formulating new conventions relating to this subject, notably the 1969 International Convention for Civil Liability for Oil Pollution Damage. In these various forums and after careful consideration, certain principles seem to have evolved, securing somewhat general acceptance. The first principle is the imposition of *prima facie* liability upon the person in control of the facility from which the pollution emanates. The second principle is that such a person may avoid liability if he can establish that the cause of the pollution was beyond his reasonable control. A third principle adopted is that of limitation of liability from incidents of pollution from ocean-going vessels.

D. Jurisdictional Considerations

As has been indicated earlier in this Report, there is a broad international community interest in maintaining a right of unimpeded navigation on the world's oceans for commercial vessels, subject only to internationally agreed rules and regulations in the interest of safety including ship design and construction, pollution prevention and accommodation of other uses. This right of unimpeded navigation could be seriously eroded by unreasonable unilateral pollution control requirements that fail to take adequate account of the international interest in such navigation. At the same time, the interest of all States, particularly Coastal States, in maintaining a satisfactory marine environment must be recognized and accommodated.

The most promising route to achieving a satisfactory balance between the maintenance of the marine environment and the continued right of navigation and transport by sea lies in reaching broad international agreement among States on pollution control and safe operation standards for vessels moving in international trade. Broad international agreement on such standards and the methods for their application would tend to minimize disputes among States as to applicable regulations and furnish international marine interests with stable and uniform standards.

There is also broad international community interest in the conduct of seabed minerals development in areas under Coastal State economic resource jurisdiction insofar as safety of navigation, pollution control and integrity of investment are concerned.

E. Conclusions and Recommendations

It is recommended that a Law of the Sea Convention embody the following principles and standards regarding pollution control:

1. *Standards for Vessel Pollution Control and Their Enforcement*

(a) Jurisdiction to *prescribe standards, including standards of liability relating to pollution from vessels, should be vest*ed *exclusively in appropriate international organizations, existing* or *newly established, particularly those with specialized* knowledge *and experience in* ocean *pollution control. It is anticipated that Coastal States will participate in the work of such organizations. Such broadly agreed standards should be applicable upon all oceans and not limited to any particular area* or zone *of the* oceans, *but should reflect, where appropriate, special circumstances* or *unique environmental conditions.*

(b) Jurisdiction to enforce standards relating to pollution from vessels should be vested in the States of registry and confirmed as regards a *Coastal State when* a *discharge* occurs *within its territorial sea. In addition,* a *Coastal State should have limited jurisdiction to enforce internationally prescribed pollution control standards in* an agreed *breadth of waters adjacent to its coast and seaward of its territorial sea. Such enforce-*

ment jurisdiction of a Coastal State should include the power to detain a vessel only in circumstances where it is either engaged in an act of pollution prohibited by the applicable standards or where there is a clear and present danger that such an incident of pollution will occur if the vessel is permitted to continue on its course. This detention should terminate in a particular case where the vessel has furnished a guarantee that compensation will be made available to cover damage that in fact is found to have resulted from such an act. The type and limits for such a guarantee should be fixed by international agreement.

In the event of an arbitrary exercise of the limited jurisdiction by a Coastal State or an exercise without reasonable cause, the vessel owner, cargo owner, State of registry of the vessel, or State of nationality of the cargo owner, should have a right to appeal the dispute to the international disputes settlement procedures with a claim for damages for any injury as a result of such exercise of jurisdiction.

The treaty should affirm the principle of Flag State enforcement with respect to areas beyond those in which the treaty grants enforcement jurisdiction to the Coastal State. However, when in the view of the appropriate international organization, circumstances warrant, it should be empowered to delegate supplementary jurisdiction to enforce the internationally agreed standards, to any appropriate Coastal State. This delegation of supplementary enforcement jurisdiction should be on an ad hoc basis and should also be subject to compulsory dispute settlement.* In special circumstances, when regional organizations are created for pollution control and are given delegated enforcement rights, such organizations should assure adequate representation for user States as well as Coastal States in the region.

2. Seabed Pollution Control Standards and Their Enforcement

(a) Jurisdiction to prescribe standards of conduct relating to pollution from seabed resource exploitation on the continental margin, including necessary pipeline and terminal operations, should be vested in the adjacent Coastal State, but the appropriate international organization should have authority to prescribe standards which the Coastal State may raise but not lower in order to protect the interests of all States in the marine environment.

(b) Jurisdiction to enforce such standards should be vested in the adjacent Coastal State having jurisdiction to prescribe them.

3. Settlement of Pollution Control Disputes†

In the event of a dispute involving the application of pollution control standards or regulations established by or under the Convention, it should provide appropriate procedures and institutions, as set forth in Chapter Five, to:

(a) Review compliance by a State with its Convention obligations upon the complaint of any other party State;

(b) Hear and decide disputes as provided for in Chapter Five with respect to pollution under the Convention involving any party State or international organization; and

(c) Issue, in connection with the preceding paragraph, such interim orders as may be necessary to prevent injustices pending consideration and resolution of such disputes.

* Of course internationally agreed standards designed both to assure pollution control and safety of navigation should provide for continuing the existing procedures for maintenance and upkeep of the vessel and its facilities. Inspections to assure compliance should be carried out in the locale which would be most economical under the circumstances.

† See Chapter Five, "Settlement of Disputes."

CHAPTER FOUR

ACCOMMODATION OF USES

A. Complexity of Multiple Use of the Marine Environment

Experience to date does not indicate that diverse uses of the ocean environment will give rise to serious conflict among them. Nevertheless, the National Petroleum Council believes it should express the admonition that any such lawful use must be conducted consistently with other lawful uses within the ocean area. As technology advances and ocean area uses become more extGnsive and intensive, some degree of conflict among uses might well develop. The harmonization of all uses of the ocean area, including mineral resource development of the seabed, will be of increasing complexity as Coastal States exercise resource development jurisdiction over the seabed in areas at considerable distance seaward of the territorial sea-particularly as international rights are exercised in the ocean above these seabeds.

Among the more important uses of the marine environment are:

- Aesthetics
- Communication including submarine cables
- Fishing
- Mineral resource exploitation, both hydrocarbons and hard minerals
- National defense
- Navigation on the oceans
- Nuclear energy generating plants
- Recreation
- Scientific research
- Transport facilities such as superports and airports
- Underwater gathering and trunk pipelines
- Underwater storage.

As anticipated requirements for increased petroleum imports rise rapidly for consumer countries, offshore superports to handle very large crude oil tankers will be a necessity in some parts of the world where there are no natural deepwater ports. As a matter of fact, for economical importation of large quantities of crude oil, offshore manmade superports will be a "must" for the United States since its coasts do not offer natural deepwater harbors. Constructed perhaps 20 miles or more offshore, these superports will require underwater pipelines to storage and handling facilities onshore. Both the superports and their ancillary facilities must be constructed and operated without causing conflict with other lawful uses of the area, particularly navigation. Environmental considerations must also be taken carefully into account in the construction and operation of such facilities.

The international designation of mandatory traffic safety patterns, including establishing traffic separation freeways

and requiring shipping to comply therewith, will minimize conflict between the presence and operation of a superport and navigation of vessels in the area.

Experience with offshore petroleum exploration and producing operations has demonstrated that fish catch in the area is not adversely affected.

B. Recommendations

The National Petroleum Council recommends that:

1. *The international authority* or a *commISSIon established* under *the Convention have responsibility* for *developing standards and* criteria for *utilization in resolving conflicts* among *uses and that close consultation with Coastal States be maintained in this* process;

2. *In the event of conflict* among *uses in the marine* area *involving rights and obligations under the Convention* or *under general rules of international law, the* procedures *and institutions provided* for *in the Convention be* resorted to *in* order to *reach accommodation.*

CHAPTER FIVE

SETTLEMENT OF DISPUTES

It is inevitable that the overlapping interests of Coastal States and the international community in offshore areas will from time to time result in conflicts and disputes. The concern of all governments with maintaining harmonious activity in such areas compels the establishment of dispute settlement procedures that are efficient, impartial and effective.

A. Law of the Sea Convention Facilities

The recommendations made here regarding such procedures are predicated upon the establishment of an international organization that will have facilities for the adoption and promulgation of rules and standards governing navigation in offshore areas, the control of pollution from vessels, seabed activities, pipelines and terminals, the protection of investments and the accommodation of different uses. Such facilities might consist of or include a commission or commissions composed of experts appointed pursuant to the Law of the Sea Convention which, in addition to having the power to develop rules and practices, would also be empowered to deal with administration of the deep seabed area and with conflicts and disputes. The Convention should also provide procedures for the judicial settlement of disputes regarding interpretations of the Convention, as well as those otherwise arising between governments, between governments and the organization, and between private parties and governments or the organization.

In the first instance, a commission of experts or a dispute settlement chamber thereof might appropriately act as a mediator or conciliator or, if the organization were itself a party to the dispute, it might arrange for third party mediation or conciliation. In any event, if time permits, there should be a period for negotiation in which a good faith effort would be required by all concerned to reach a solution. The Convention on International Civil Aviation is precedent for requiring negotiation, but it would appear essential, if any such provision were adopted, that some time limit should be specified.

Apart from the negotiation, mediation or conciliation of disputes as a means of settlement, it is essential that, where these fail to provide a solution within a reasonable time, procedures be prescribed for compulsory impartial adjudication. The adjudicating authority should also be empowered to order interim measures where necessary to prevent immediate injury due to interference with the movements of vessels and their cargoes. Similarly, interim orders may be necessary in emergency situations to prevent accidents or imminent harm to the marine environment.

Broad areas of disputes likely to arise and requiring international adjudication are: (l) those relating to the operation of vessels, (2) those involving the exercise of rights to prevent or recover damages for pollution, (3) those relating to the protection of investments in ocean areas, (4) those relating to deepsea mining operations, and (5) those arising out of claimed interferences with other international rights and freedoms. In some cases the disputes may be between two or more governments or between a government and an international authority. In other cases, the primary parties concerned on one side of a dispute may be private vessel owners or operators, private offshore operators, private investors, or other private users of the marine area. To require that in all instances private interests be represented by their governments where they claim redress for some injury would be retrogressive and would frustrate the objectives of the treaty. It is particularly essential that private parties have immediate access to adjudicating procedures where emergency measures are required.

While it is recognized that compulsory procedures may be difficult to negotiate in a Law of the Sea Conference, the alternative of recognizing certain Coastal State rights in broad areas beyond the territorial sea without measures for settling disputes arising from the exercise of such rights would be contrary to the interest of all countries which are concerned with the unimpeded movement of vessels through the oceans, pollution control and the harmonization of uses in offshore areas. This is clearly the position taken by the United States, as evidenced by Mr. Stevenson's statement on August 10, 1972, that "the principle of compulsory dispute settlement is essentia1." *

In its draft Convention on the International Seabed Area, submitted as a working paper, the United States proposed a tribunal to be composed of "five, seven, or nine independent judges," representing "the principal legal systems of the world," and appointed by the Council of the proposed International Seabed Authority from candidates nominated by the Contracting Parties.t Such a tribunal would decide "all disputes and advise on all questions relating to the interpretation and application" of the Convention submitted to it in accordance with the provisions of the Convention. Under this draft, the Council would be composed of 24 Contracting Parties of which 6 would be the most industrially advanced and of which 18 (to include at least 12 developing countries) would be elected by the Assembly, taking into account the need for equitable geographic distribution. All decisions, including the appointment of the judges, would require approval by a majority of each category, that is, a majority of the 6 most industrially advanced and a majority of the remaining 18.

B. Disputes Between States and With International Organizations

For the purposes of settling disputes between States and those between States and the international organization involving issues of state as such, including disputes relating to the interpretation and application of the Convention, such a tribunal should be suitable, provided that the balance proposed in the U.S. draft is maintained. If it is not, compulsory arbitration should be proposed. Where questions of a technical nature are involved-such as compliance with technical standards or specifications, navigational issues, and those relating to pollution-reference to a commission of experts, whose appointment would be governed by the same procedures as those applicable to the appointment of

* Appendix C, Statement of Mr. John R. Stevenson.

tU.N. Doc. A/AC.l38/25 (August 3,1970).

judges, would be more appropriate for the purpose of obtaining recommendations on technical issues. Such recommendations could then be referred with legal issues to the tribunal or to arbitration for adjudication.

In this connection, it is noted that in the draft Fisheries Article submitted by the United States to the U.N. Seabed Committee, provision is made for a Commission of five members to settle disputes arising under that Article.* Such a procedure might be followed in relation to disputes of a technical nature as outlined above. However, arbitration by a three-member tribunal would appear just as appropriate, and probably more efficient, particularly if hearings have been held before a conciliation or mediation commission or the issues thoroughly explored by negotiation.

C. Disputes Involving Private Parties

In the case of disputes between private parties, on the one hand, and States or the international organization on the other, including investment disputes, the members of the tribunal or commission should be appointed by the parties or, where they cannot agree on an appointment, by an independent appointing authority. The Rules of the Permanent Court of Arbitration, which were amended in 1962 to provide for arbitration and conciliation between two parties of which only one is a State, would provide a suitable framework for this, and they have the advantage of being well established and administered by a secretariatt To facilitate the appointment of arbitrators under such rules, where the parties cannot themselves agree, it would be appropriate for the States which are parties to the Law of the Sea Convention to appoint experts to panels from which selections could be made by the Secretary General of the Permanent Court of Arbitration.

Because interference with shipping, including delays, may be very costly to the owners of vessels and cargoes and even vital to those countries dependent on shipping for their supplies, it is recommended that the tribunal, commission or other appropriate authority be empowered to issue emergency orders to free vessels and cargoes which may have been seized by Coastal States, without prejudice to later negotiation, mediation, conciliation or adjudication of the issues involved. Such an authority could be empowered to issue interim orders upon application of any party to the dispute, private or public, against the posting of a bond or other security. States party to the Convention should undertake to enforce such orders in their own municipal legal systems and should be bound to provide emergency procedures under their own municipal laws for the prompt release of vessels and cargoes against the furnishing of security.

D. Conclusions and Recommendations

Procedures and institutions for the peaceful and objective resolution of disputes are fundamental to an orderly society. This is no less true in the international community than in the domestic. A community that does not accept peaceful and objective settlement of disputes cannot be considered as having accepted the rule of law.

The complexity and multiplicity of uses of the sea and seabed beneath it, even under the best of intentions and practices, will give rise to serious disputes between States themselves, between a State and a private party user, and with the International Seabed Authority.

Such disputes, if not subject to peace-

* U.N. Doc. *A/AC.138/SC.II/L.9* (August 4, 1972).

† "Rules of Arbitration and Conciliation for Settlement of International Disputes Between Two Parties of Which Only One Is a State," *American Journal of International Law* (official document of the Permanent Court of Arbitration), Vol. 57 (1963), p. 500.

ful and objective settlement with accepted legal standards for decision, may well develop needlessly into threats to the peace among nations.

The National Petroleum Council recommends that the U.S. Government maintain its strong position requiring that a Law of the Sea Convention provide procedures and institutions for the peaceful and objective settlement of any dispute arising as to the interpretation of provisions of the Convention or a dispute involving uses of the sea or seabeds, whether between States themselves, a State and a private person of another State, or with an international organization.

It is recommended that the United States urge the following:

1. All disputes arising under *the* Con*vention* or *its application should be subject to* compulsory *dispute settlement.*

2. Whatever international authority is established by the Convention should contain an *expert commission* or com*missions with* powers to *review and make* recommendations for *the settlement of disputes of* a *technical nature, such* recommendations as to *technical issues which* are *not accepted by the parties* to *be submitted* to *the adjudicating authority* under 3 or 4 *below.*

3. Subject to adoption of the propos*als in the U.S. draft Convention relating* to *the composition of the Council and the appointment of members of the tribunal,* or proposals *substantially similar,* a *separate tribunal should be provided in the Convention with competence* to *decide* on a *legal basis disputes of* a *State nature arising* under *the treaty between States* or *between* a *State and* an *international organization, and* to *which private* par*ties will have* a *right* to *apply* for emergency measures *and for the settlement of disputes between them and* an *international organization* or *between them and States.*

4. In cases *involving disputes be*tween a *State and* a *private party* or *between* an *international organization and* a *private party, and also in cases of disputes between States* or *between* a *State and* an *international organization where the U.S.* proposals referred *to in 3 above,* or *substantially similar* propos*als, are not adopted, provision should be made* for *resort to adjudication by* a *tribunal established* under *the Rules of the Permanent Court of Arbitration.*

5. In matters requiring emergency ac*tion, including that of* an *interim nature, there should be* procedures *and institutions available to private parties* for *immediate relief pending final resolution of the dispute. Such institutions* could *include expert commissions* for *various uses* or *the Secretariat itself* or *its desig*nee for *the* purpose *involved.*

APPENDICES

Appendix A

United States Department of the Interior
Office of the Secretary
Washington, D.C. 20240

September IS, 1972

Dear Mr. True:

On behalf of the Secretary of the Interior I wish to express our appreciation for the 1971 Supplemental Report on Petroleum Resources under the Ocean Floor prepared by the National Petroleum Council in response to a request from the Department of the Interior.

Your analysis and comments on the U.S. draft convention and appendices were indeed helpful. In particular, the discussion provided on Articles 26 and 73 was of significant interest to us.

In order to assist the Department of the Interior in the continuing preparation for the scheduled 1973 Law of the Sea Conference, the National Petroleum Council is requested to prepare a further study which should consider the question of navigation in coastal waters and international straits and the question of security of investment in overseas and domestic offshore areas. In conjunction with the latter, it would be helpful if special attention could be paid to the issue of compulsory settlement of disputes.

In view of the increasing dependence of the United States on imported energy we must be increasingly alert to possibilities for reducing that dependence or stabilizing the conditions under which foreign petroleum liquids and gas are produced and exported to the United States. In this connection, the U.S. Representative to the United Nations Seabeds Committee on August 10, 1972, advised the United Nations that it is essential that coastal state jurisdiction over mineral resources of the continental margins be subject to international standards, including navigation in coastal areas, pollution prevention, protection for the integrity of investments and the compulsory settlement of disputes. The United States believes that these international standards will in part contribute to our energy posture by creating more stable and secure investment conditions. The advice of the National Petroleum Council is requested on whether these standards are adequate to meet these objectives. If they are considered to be adequate, we would appreciate your suggestions for amplifying upon them and, if possible, alternatives which might improve our energy posture with equal effectiveness.

Once again, we were most appreciative of the valuable information and recommendations contained in the 1969 and 1971 Council reports on seabed resource development. We are hopeful that you will be able to provide your views and comments on these matters and on others which you may deem relevant. An interim report by December 1972 would be particularly timely. We look forward to your continued assistance in this matter.

Sincerely yours,
Hollis M. Dole
Assistant Secretary-
Mineral Resources

Mr. H. A. True, Jr.
Chairman
National Petroleum Council
1625 "K" Street, N.W.
Suite 601
Washington, D.C. 20006

Appendix B

National Petroleum Council Committee on Petroleum Resources Under the Ocean Floor

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Wilton E. Scott
Chairman of the Board
Tenneco Oil Company

Cochairman

Stephen A. Wakefield
Assistant Secretary for Energy and Minerals
U.S. Department of the Interior

Secretary

Vincent M. Brown
Executive Director
National Petroleum Council

* * *

Robert O. Anderson
Chairman of the Board
Atlantic Richfield Company

H. Bridges
President
Shell Oil Company

B. R. Dorsey
Chairman of the Board
Gulf Oil Corporation

Ford M. Graham
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Maurice F. Granville
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Fred L. Hartley
President
Union Oil Company of California

J. K. Jamieson
Chairman of the Board
Exxon Corporation

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John G. McLean
Chairman of the Board
Continental Oil Company

O. N. Miller
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Standard Oil Company of California

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Murphy Oil Corporation

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Rawleigh Warner, JI.
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Technical Subcommittee of the
National Petroleum Council's Committee on Petroleum
Resources Under the Ocean Floor

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National Petroleum Council's Committee on Petroleum
Resources Under the Ocean Floor
Legal Task Force

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Appendix C

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Statement by the Honorable John R. Stevenson
United States Representative to the Committee on the
Peaceful Uses of the Seabed and the Ocean Floor
Beyond the Limits of National Jurisdiction
Plenary, August 10, 1972

Mr. Chairman:

In recent weeks, both you and your colleagues on the Bureau have emphasized that this is a critical session for the United Nations Seabed Committee. We agree. Therefore, we believe it is appropriate to consider the future of these negotiations and, in that context, the future of the Law of the Sea. It is over two years since President Nixon said:

> The stark fact is that the law of the sea is inadequate to meet the needs of modern technology and the concerns of the international community. If it is not modernized multilaterally, unilateral action and international conflict are inevitable.

Mr. Chairman, if we are to find negotiated, international solutions to the law of the sea, we must do two things promptly.

First, we must all be prepared to accommodate each other's interests and needs. We are preparing a comprehensive law-making treaty to govern not only the conduct of sovereign States and private persons in the ocean, but also the natural resources of an area comprising two-thirds of the earth's surface. Its effectiveness will depend in large measure on the extent to which it represents a consensus of all, rather than a group of States. To achieve this, we must identify those national interests that are of fundamental importance to each of us, and avoid time-consuming and potentially divisive debate on less important matters.

Second, we must achieve agreement before events overtake our ability to do so. I cannot stress too strongly that none of us can or should stop technology and its use. If we act wisely and in a timely manner, we can ensure by agreement that the technology will be used in a manner that provides maximum benefit for all mankind.

Our efforts here, Mr. Chairman, are known to many people in my own country and in many others represented here today. The people who use the seas, and the people whose livelihoods either now or in the future depend on the sea, are watching us. In the United States there is a growing uneasiness about our work. Most Americans concerned with the sea are dedicated to multilateral solutions to problems which have international ramifications, but they are becoming increasingly skeptical about the chances for success. Other delegations here may perceive similar developments taking place in their own countries. We must not allow confidence to be shaken in our ability to negotiate timely solutions to the problems we face.

Against this background, I would like to comment on some aspects of the substance of these negotiations.

Ocean uses can be divided into two broad categories: Resource uses and non-resource uses. The first group principally concerns fishing and seabed re-

sources. The non-resource uses include such important interests as navigation and overflight, scientific research and the preservation of the ocean environment.

The view of my delegation on non-resource uses have been clearly stated on a number of occasions. It is our candid assessment that there is no possibility for agreement on a breadth of the territorial sea other than 12 nautical miles. The United States and others have also made it clear that their vital interests require that agreement on a 12-mile territorial sea be coupled with agreement on free transit of straits used for international navigation and these remain basic elements of our national policy which we will not sacrifice. We have, however, made clear that we are prepared to accommodate coastal State concerns regarding pollution and navigational safety in straits and have made proposals to that effect in Subcommittee II.

The views of my delegation on resource issues have also been stated on a number of occasions. Unfortunately, some delegations appear to have the impression that maritime countries in general, and the United States in particular, can be expected to sacrifice in these negotiations basic elements of their national policy on resources. This is not true. The reality is that every nation represented here has basic interests in both resource and non-resource uses that require accommodation.

Accordingly, we believe it is important to dispel any possible misconceptions that my government would agree to a monopoly by an international operating agency over deep seabed exploitation or to any type of economic zone that does not accommodate basic United States interests with respect to resources as well as navigation. I would like to amplify this point with a few remarks on some of these basic elements,

Coastal Resources Generally

Mr. Chairman, in order to achieve agreement, we are prepared to agree to broad coastal State economic jurisdiction in adjacent waters and seabed areas beyond the territorial sea as part of an overall law of the sea settlement. However, the jurisdiction of the coastal State to manage the resources in these areas must be tempered by international standards which will offer reasonable prospects that the interests of other States and the international community will be protected. It is essential that coastal State jurisdiction over fisheries and over the mineral resources of the continental margins be subject to international standards and compulsory settlement of disputes.

Seabed Resources-Coastal Areas

We can accept virtually complete coastal State resource management jurisdiction over resources in adjacent seabed areas if this jurisdiction is subject to international treaty limitations in five respects:

1. *International treaty standards to prevent unreasonable interference with other uses of the* ocean. A settlement based on combining coastal State resource management jurisdiction with protection of non-resource uses can only be effective if the different uses are accommodated. This requires internationally agreed standards pursuant to which the coastal State will ensure, subject to compulsory dispute settlement, that there is no unreasonable interference with navigation overflight and other uses.

2. *International treaty standards* to protect *the* ocean *from pollution.* As a coastal State, we do not wish to suffer pollution of the oceans from seabed activities anywhere. We consider it basic that minimum internationally agreed pollution standards apply even to areas in which the coastal State enjoys resource jurisdiction.

3. International treaty standards to protect the integrity of investment. When a coastal State permits foreign nationals to make investment in areas under its resource management jurisdiction, the integrity of such investments should be protected by the treaty. Security of tenure and a stable investment climate should attract foreign investment and technology to areas managed by developing coastal States. Without such protection in the treaty, investment may well go elsewhere.

4. Sharing of revenues for international community purposes. We continue to believe that the equitable distribution of benefits from the seabeds can best be assured if treaty standards provide for sharing some of the revenues from continental margin minerals with the international community, particularly for the benefit of developing countries. Coastal States in a particular region should not bear the entire burden of assuring equitable treatment for the landlocked and shelf-locked States in that region, nor should they bear the entire burden for States with narrow shelves and little petroleum potential off their coast. The problem is international and the best solution would be international. We repeat this offer as part of an overall settlement despite our conclusion from previous exploitation patterns that a significant portion of the total international revenues will come from the continental margin off the United States in early years. Weare concerned about the opposition to this idea implicit in the position of those advocating an exclusive economic zone.

5. Compulsory settlement of disputes. International standards such as those I described are necessary to protect certain non-coastal and international interests, and thus render agreement possible. Accordingly, effective assurances that the standards will be observed is a key element in achieving agreement. Adequate assurance can only be provided by an impartial procedure for the settlement of disputes. These disputes, in the view of my delegation, must be settled ultimately by the decision of a third party. For us then the principle of compulsory dispute settlement is essential.

Seabed Resources--Deep Seabeds

In many respects, the deep seabeds present the newest and most exciting aspects of our work. Although we cannot agree that international law prohibits the exploitation of deep seabed resources in accordance with high seas principles, we fully share the desire to establish an equitable, internationally agreed, regime for the area and its resources as the common heritage of mankind. The sooner we do so, the earlier we will terminate essentially divisive and counter-productive disputes over the present legal status of deep seabed exploitation as well as over the position taken by some delegations, with which we have consistently disagreed, that common heritage means the common property of mankind.

Our interest in the prompt establishment and effectiveness of an equitable international regime for the seabed is demonstrated both by the comprehensive draft treaty we presented two years ago and by President Nixon's statement that any prior exploitation of the deep seabed area must be "subject to the international regime to be established."

The basic interests we seek to protect in an international seabed regime are reflected in the five points to which I referred earlier, coupled with our proposal for international machinery to authorize and regulate exploration and use of the resources of the area. An effective and equitable regime must protect not only the interests of the developing countries but also those of the developed countries by establishing reasonable and secure investment conditions for their nationals who will invest their capital and technology in the deep sea-

beds. In order to provide the necessary protections for all nations with important interests in the area, it is also necessary to establish a system of decision making which takes this into account and provides for compulsory settlement of disputes. We do not regard these objectives as inconsistent with the desire of other countries for equitable participation in deep seabed exploitation and its benefits.

Finally, Mr. Chairman, it is our view that the benefits to be derived from the operation of this new treaty should only be made available to those nations who are prepared to ratify or accede to it. Those benefits, as all of us in this room know, are manifold. New technology for mining in the seabeds is rapidly opening up new prospects for important mineral supplies. As development proceeds, vast new ideas will emerge as man begins the serious exploration of the ocean and its resources. Mining in the oceans will generate revenues as well. All these benefits, Mr. Chairman, should be shared. We are capable in this Committee of making the decisions which will enable these benefits to be realized, but we must get about the business of making these decisions promptly or we will be precluded from doing so.

Fisheries

With respect to fisheries, our basic interest is to assure rational use and conservation of all fish stocks. To achieve this, we belive coastal States should have substantial jurisdiction over all fisheries, including anadromous species, except where the migratory habits of certain fish stocks dictate another system-for example, the highly migratory tuna should be managed pursuant to multilateral arrangements. In coastal areas jurisdiction should be limited by such international standards as would assure conservation and full utilization of the living resources.

It is widely understood that the United States shares the interests of many other coastal States. However, the fact that over 80% of our fisheries are off our own coast does not mean that we are prepared to abandon the remaining 20%— the distant-water segment of our industry. There are reasonable ways to accommodate the interests of both coastal and distant-water fishing States and to assure the kind of special cooperation between States in a region that many delegations have urged. We believe that a solution of the fisheries problem should take into account the migratory habits of fish and the manner in which they are fished. Thus, we can support broad coastal State jurisdiction over coastal and anadromous fisheries beyond the territorial sea subject to international standards designed to ensure conservation, maximum utilization and equitable allocation of fisheries, with compulsory dispute settlement, but with international regulation of highly migratory species such as tuna.

Our detailed proposals on this matter have been elaborated further in Subcommittee II. The proposals reflect our continuing belief that both sound conservation and rational utilization must take into account the biology and distribution of living marine resources. But they also respond to the expressed desire of coastal States for direct regulatory authority and preferential rights over coastal and anadromous fisheries. However, it is fundamental that fish stocks must be conserved, and that there must be maximum utilization of stocks not fully utilized by local fishermen. Moreover, account should be taken of traditional fishing activities of other nations, as well as the desire of States to enter into special arrangements with their neighbors. We remain convinced that highly migratory oceanic species can only be properly regulated through international organizations. It is our hope that our new proposals will move the Committee closer to a solution to the complex fisheries problems involved.

Conclusion

Mr. Chairman, I would like to conclude my statement with some general comments. While my delegation must confess its disappointment in our progress to *date,* we must also point out those areas where we believe important progress has been made.

Looked at from a broad perspective. we see various signs that make us cautiouslyoptimistic. It is clear that the negotiating positions of various States are now substantially closer together than their juridical positions. This is particularly the case with respect to the width of the territorial sea and coastal State jurisdiction over resources beyond the territorial sea.

Mr. Chairman, I welcomed the interesting reports of the distinguished representatives of Venezuela and Kenya on the results of the Santo Domingo Conference of Caribbean States and the Yaounde Seminar of African countries. While applauding their contribution to the continuing development of a generally acceptable agreement, I should point out they do not fully take into account a number of the factors I have discussed earlier in this statement. I note in particular the absence of any reference to international standards and dispute settlement procedures applicable to coastal State resource jurisdiction and of any distinction in the treatment of living resources based on their migratory characteristics. However, these documents certainly provide a starting point for serious negotiations and, if harmonized with my own delegation's statement *todaYt* there might be a potential for merging together in a new treaty what are otherwise widely disparate positions. Perhaps then the very beginnings of an outline might emerge which could become the basis for a successful 1973 Conference. I hope *so,* Mr. Chairman.

Another source or hope is the work of Subcommittee 1. We have given priority to the negotiation of the regime and we are beginning to see not only concrete results but an open and constructive negotiating atmosphere. The distinguished representative of the Cameroon, Chairman of the First Subcommittee, and your distinguished colleague from Sri Lanka, Chairman of the Working GrouPt have through their tireless efforts helped break new ground in this Committee which makes us believe that where there is political will, our negotiations will bear fruit.

This new political will, however, must infuse our work in the other subcommittees as well and it must occur now. The "list" must be disposed of and work begun on the drafting of articles. We are confident, Mr. Chairman, that once such work begins it will move rapidly and a successful conference will be within our grasp. But if we wait longer, Mr. Chairman, we wonder if a successful conference will ever be possible. Let us all begin to work now to avoid such a tragedy.

Finally in closing, Mr. Chairman, I want to express to you the sincere appreciation of my delegation for your wisdom, guidance and firm leadership through what we hope will be one of the most important and successful negotiations to have taken place in our times. We wish you continued success at this endeavor and will give you all our support.

Thank *YOU,* Mr. Chairman.

* * *

Appendix D

List of Subjects and Issues Relating to the Law of the Sea *

Approved by the U.N. Seabed Committee On August 18. 1972

1. International regime for the sea-bed and the ocean floor beyond national jurisdiction
   - 1.1 Nature and characteristics
   - 1.2 International machinery: structure, functions, powers
   - 1.3 Economic implications
   - 1.4 Equitable sharing of benefits bearing in mind the special interests and needs of the developing countries, whether coastal or landlocked
   - 1.5 Definition and limits of the areat
   - 1.6 Use exclusively for peaceful purposes
2. Territorial sea
   - 2.1 Nature and characteristics, including the question of the unity or plurality of regimes in the territorial sea
   - 2.2 Historic waters
   - 2.3 Limits
   - 2.3.1 Question of the delimitation of the territorial sea; various aspects involved
   - 2.3.2 Breadth of the territorial sea, Global or regional criteria. Open seas and oceans, semi-closed seas and enclosed seas
   - 2.4 Innocent passage in the territorial sea
   - 2.5 Freedom of navigation and overflight resulting from the question of plurality of regimes in the territorial sea
3. Contiguous zone
   - 3.1 Nature and characteristics
   - 3.2 Limits
   - 3.3 Rights of coastal States with regard to national security, customs and fiscal control, sanitation and immigration regulations
4. Straits used for international navigation
   - 4.1 Innocent passage
   - 4.2 Other related matters including the question of the right of transit
5. Continental shelf
   - 5.1 Nature and scope of the sovereign rights of coastal States over the continental shelf. Duties of States
   - 5.2 Outer limit of the continental shelf: applicable criteria
   - 5.3 Question of the delimitation between States; various aspects involved
   - 5.4 Natural resources of the continental shelf
   - 5.5 Regime for waters superjacent to the continental shelf
   - 5.6 Scientific research
6. Exclusive economic zone beyond the territorial sea
   - 6.1 Nature and characteristics, including rights and jurisdiction of coastal States in relation to resources, pollution control and scientific research in the zone. Duties of States
   - 6.2 Resources of the zone
   - 6.3 Freedom of navigation and overflight

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* U.N. Doc. Supp. No. 21 (A/8721, pp. 4-8).

t To be considered in the light of the procedural agreement as set out in paragraph 22 of the report of the Committee (Official records of the General Assembly, Twenty-Sixth Session, Supplement No. 21 [A/8421J).

6.4 Regional arrangements
6.5 Limits: applicable criteria
6.6 Fisheries
6.6.1 Exclusive fishery zone
6.6.2 Preferential rights of coastal States
6.6.3 Management and conservation
6.6.4 Protection of coastal States' fisheries in enclosed and semi-enclosed seas
6.6.5 Regime of islands under foreign domination and control in relation to zones of exclusive fishing jurisdiction
6.7 Sea-bed within national jurisdiction
6.7.1 Nature and characteristics
6.7.2 Delineation between adjacent and opposite States
6.7.3 Sovereign rights over natural resources
6.7.4 Limits: applicable criteria
6.8 Prevention and control of pollution and other hazards to the marine environment
6.8.1 Rights and responsibilities of coastal States
6.9 Scientific research

7. Coastal State preferential rights or other non-exclusive jurisdiction over resources beyond the territorial sea
7.1 Nature, scope and characteristics
7.2 Sea-bed resources
7.3 Fisheries
7.4 Prevention and control of pollution and other hazards to the marine environment
7.5 International co-operation in the study and rational exploitation of marine resources
7.6 Settlement of disputes
7.7 Other rights and obligations

8. High seas
8.1 Nature and characteristics
8.2 Rights and duties of States
8.3 Question of the freedoms of the high seas and their regulation
8.4 Management and conservation of living resources
8.5 Slavery, piracy, drugs
8.6 Hot pursuit

9. Land-locked countries
9.1 General Principles of the Law of the Sea concerning the land-locked countries
9.2 Rights and interests of land-locked countries
9.2.1 Free access to and from the sea: freedom of transit, means and facilities for transport and communications
9.2.2 Equality of treatment in the ports of transit States
9.2.3 Free access to the international sea-bed area beyond national jurisdiction
9.2.4 Participation in the international regime, including the machinery and the equitable sharing in the benefits of the area
9.3 Particular interests and needs of developing land-locked countries in the international regime
9.4 Rights and interests of land-locked countries in regard to living resources of the sea

10. Rights and interests of shelf-locked States and States with narrow shelves or short coastlines
10.1 International regime
10.2 Fisheries
10.3 Special interests and needs of developing shelf-locked States and States with narrow shelves or short coastlines
10.4 Free access to and from the high seas

11. Rights and interests of States with broad shelves

12. Preservation of the marine environment
    - 12.1 Sources of pollution and other hazards and measures to combat them
    - 12.2 Measures to preserve the ecological balance of the marine environment
    - 12.3 Responsibility and liability for damage to the marine environment and to the coastal State
    - 12.4 Rights and duties of coastal States
    - 12.5 International cooperation
13. Scientific research
    - 13.1 Nature, characteristics and objectives of scientific research of the oceans
    - 13.2 Access to scientific information
    - 13.3 International cooperation
14. Development and transfer of technology
    - 14.1 Development of technological capabilities of developing countries
    - 14.1.1 Sharing of knowledge and technology between developed and developing countries
    - 14.1.2 Training of personnel from developing countries
    - 14.1.3 Transfer of technology to developing countries
15. Regional arrangements
16. Archipelagos
17. Enclosed and semi-enclosed seas
18. Artificial islands and installations
19. Regime of islands:
    - (a) Islands under colonial dependence or foreign domination or control;
    - (b) Other related matters
20. Responsibility and liability for damage resulting from the use of the marine environment
21. Settlement of disputes
22. Peaceful uses of the ocean space; zones of peace and security
23. Archaeological and historical treasures on the sea-bed and ocean floor beyond the limits of national jurisdiction
24. Transmission from the high seas
25. Enhancing the universal participation of States in multilateral conventions relating to the law of the sea.

Appendix E

General Principles for Assessment and Control of Marine Pollution

Proposed by the Intergovernmental Working Group on Marine Pollution (November 1971) and endorsed by the Stockholm Conference on the Human Environment (June 1972) *

A set of general principles for assessment and control of marine pollution should be accepted and endorsed by Governments.

The definition of marine pollution employed by the United Nations is lithe introduction by man, directly or indirectly, of substances or energy into the marine environment (including estuaries) resulting in such deleterious effects as harm to living resources, hazards to human health, hindrance to marine activities including fishing, impairment of quality for use of sea water, and reduction of amenities.„

The following principles were suggested by the Intergovernmental Working Group on Marine Pollution (November 1971) as guiding concepts representing a basis for general agreement.

0) Every State has a duty to protect and preserve the marine environment and, in particular, to prevent pollution that may affect areas where an internationally shared resource is located.

(2) Every State should adopt appropriate measures for the prevention of marine pollution, whether acting individually or in conjunction with other States under agreed international arrangements.

(3) States should use the best practicable means available to them to minimize the discharge of potentially hazardous substances to the sea by all routes, including land-based sources such as rivers, outfalls and pipelines within national jurisdiction, as well as dumping by or from ships, aircraft and platforms.

(4) States should ensure that their national legislation provides adequate sanctions against those who infringe existing regulations on marine pollution.

(5) States should assume joint responsibility for the preservation of the marine environment beyond the limits of national jurisdiction.

(6) The States at higher levels of technological and scientific development should assist those nations which request it, for example by undertaking programs, either directly or through competent agencies, intended to provide adequate training of the technical and scientific personnel of those countries, as well as by providing the equipment and facilities needed in areas such as research, administration, monitoring or surveillance, information, waste disposal, and others, which would improve their ability to discharge their duties consisting of protecting the marine environment.

(7) States should discharge, in accordance with the principles of international law, their obligations towards other States where damage arises from pollution caused by their own activities or by organizations or individuals under their jurisdiction and should cooperate in developing procedures for dealing with such damage and the settlement of disputes.

(8) Every State should co-operate with other States and competent international organizations with regard to the elaboration and implementation of internationally agreed rules, standards and procedures for the prevention of marine pol-

• U.N. Doc. A/CONF.48/14, Annex III. July 3. 1972.

lution on global, regional and national levels.

(9) States should join together regionally to concert their policies and adopt measures in common to prevent the pollution of the areas which, for geographical or ecological reasons, form a natural entity and an integrated whole.

(0) International guidelines and criteria should be developed, both by national Governments and through intergovernmental agencies, to provide the policy framework for control measures. A comprehensive plan for the protection of the marine environment should provide for the identification of critical pollutants and their pathways and sources, determination of exposures to these pollutants and assessment of the risks they pose, timely detection of undesirable trends, and development of detection and monitoring systems.

(1) Internationally agreed criteria and standards should provide for regional and local variations in the effects of pollution and in the evaluation of these effects. Such variables should also include the ecology of sea areas, economic and social conditions, and amenities, recreational facilities and other uses of the seas.

(12) Primary protection standards and derived working levels-especially codes of practice and effluent standards-may usefully be established at national levels, and in some instances, on a regional or global basis.

(3) Action to prevent and control marine pollution (particularly direct prohibitions and specific release limits) must guard against the effect of simply transferring damage or hazard from one part of the environment to another.

(4) The development and implementation of control should be sufficiently flexible to reflect increasing knowledge of the marine ecosystem, pollution effects, and improvements in technological means for pollution control and to take into account the fact that a number of new and hitherto unsuspected pollutants are bound to be brought to light.

OS) Every State should co-operate with other States and with competent international organizations with a view to the development of marine environmental research and survey programs and systems and means for monitoring changes, in the marine environment, including studies of the present state of the oceans, the trends of pollution effects and the exchange of data and scientific information on the marine environment. There should be similar cooperation in the exchange of technological information on means of preventing marine pollution including pollution that may arise from offshore resource exploration and exploitation.

(6) International guidelines should also be developed to facilitate comparqbility in methods of detection and measurement of pollutants and their effects.

(17) In addition to its responsibility for environmental protection within the limits of its territorial sea, a Coastal State. also has responsibility to protect adjacent areas of the environment from damage that may result from activities within its territory.

(18) Coastal States should ensure that adequate and appropriate resources are available to deal with pollution incidents resulting from the exploration and exploitation of seabed resources in areas within the limits of their national jurisdiction.

(19) States 'should cooperate in the appropriate international forum to ensure that activities related to the exploration and exploitation of the seabed and the ocean floor beyond the limits of national jurisdiction shall not result in pollution of the marine environment.

(20) All States should ensure that vessels under their registration comply with internationally agreed rules and standards relating to ship design and con-

struction, operating procedures and other relevant factors. States should cooperate in the development of such rules, standards and procedures, in the appropriate international bodies.

(21) Following an accident on the high seas which may be expected to result in major deleterious consequences from pollution or threat of pollution of the sea, a Coastal State facing grave and imminent danger to its coastline and related interests may take appropriate measures as may be necessary to prevent, mitigate, or eliminate such danger, in accordance with internationally agreed rules and standards.

(22) Where there is a need for action by or through international agencies for the prevention, control or study of marine pollution, existing bodies, both within and outside the United Nations system, should be utilized as far as possible.

(23) States should assist one another, to the best of their ability, in action against marine pollution of whatever origin.

Straits Used by Tankers and Alternate Routes

Principal Straits Used by Tankers *

1. **Gulf of Aden**
   A.-Lat. 12° 00'N Long. 46° 00'E
   B.-Bounded By:
   North-Aden and Southern Yemen
   South-Somali
   C.-Draft Limits: None known (100 ft. +)
   D.-Width: 25 miles
   E.-Length: 150 miles

2. **Entrance to Aegean Sea**
   A.-Lat. 35° 30'N Long. 22°E to 29°E
   B.-Bounded By:
   West to East-Greece, Crete, Rodhos, Turkey
   C.-Draft Limits: None known 000 ft. +)
   D.-Width: 9 miles
   E.-Length: 30 miles

3. **Amukta Pass**
   A.-Lat. 52° 25'N Long. 172° 00'W
   B.-Bounded By:
   Aleutian Islands, Alaska, U.S.A.
   C.-Draft Limits: None known ODD ft. +)
   D.-Width: 36 miles
   E.-Length: 23 miles

4. **Anagada Passage**
   A.-Lat. 18° 25'N Long. 63° 50'W
   B.-Bounded By:
   East-Various shoals and islands
   West-Virgin Islands
   C.-Draft Limits: None known (100 ft. +)
   D.-Width: 42 miles
   E.-Length: 85 miles

5. **Gulf of Aqaba (Strait of Tiran)**
   A.-Lat. 28° 00'N Long. 34° 30'E
   B.-Bounded By:
   West-Sinai Peninsula
   North-Israel and Jordan
   East-Saudi Arabia
   C.-Draft Limits: None known 000 ft. +)
   D.-Width: 2 miles
   E.-Length: 10 miles

6. **Bab El Mandeb-Entrance** to Red Sea
   A.-Lat. 12° 30'N Long. 43° 30'E
   B.-Bounded By:
   North-Yemen and Aden
   South-Somali and Fr. Territory of Afars and Issus
   West-Ethiopia
   C.-Draft Limits: None known ODD ft. +)
   D.-Width: 9 miles
   E.-Length: 32 miles

7. **Balabac Strait**
   A.-Lat. 7° 49'N Long. 117° 9'E
   B.-Bounded By:
   North and West-Balabac Island, Philippines
   South-Sabah (Borneo), Malaysia
   C.-Draft Limits: Narrow with numerous shoals to East. Draft-none known.
   D.-Width: 7 miles
   E.-Length: 38 miles

8. **Basilan Strait**
   A.-Lat. 6° 49'N Long. 122° 30'E
   B.-Bounded By:
   North-Mindanao, Philippines
   South-Basilan Is., Philippines
   C.-Draft Limits: About 45 ft. Quite narrow with many shoals.
   D.-Width: 6.5 miles
   E.-Length: 44 miles

9. **Bass Strait**
   A.-Lat. 39° 30'S Long. 145° 00'E

* Suez Canal now closed.

B.-Bounded By:
North-Australia
South-Tasmania
C.-Draft Limits: None known although there are some shoal areas at East end.
D.-Width: 9 miles
E.-Length: 260 miles

10. **Bering Strait**
A.-Lat. 65° 40'N Long. 169° OO'W
B.-Bounded By:
East-Alaska, U.S.A.
West-Siberia, U.S.S.R.
C.-Draft Limits: None known ODD ft. +)
D.-Width: 23 miles
E.-Length: 54 miles

11. **Strait of Bonifacio**
A.-Lat. 41° 15'N Long. 9° lO'E
B.-Bounded By:
North-Corsica
South-Sardinia
C.-Draft Limits: Draft-none known but quite narrow.
D.-Width: 3 miles
E.-Length: 22 miles

12. **Bosporus**
A.-Lat. 41° 05'N Long.. 29° 05'E
B.-Bounded By:
Turkey
C.-Draft Limits: Draft-none known. Very narrow and winding.
D.-Width: 0.3 mile
E.-Length: 22 miles

13. **Cabot Strait**
A.-Lat. 47° 20'N Long. 60° OO'W
B.-Bounded By:
Northeast-Newfoundland, Can.
Southwest-Cape Breton Island, Can.
C.-Draft Limits: None known ODD ft. +)
D.-Width: 42 miles
E.-Length: 73 miles

14. **Passage Between Cape Verde Islands and Africa**
A.-Lat. 15° OO'N Long. 20° OO'W
B.-Bounded By:
East-Senegal
West-Cape Verde Islands
C.-Draft Limits: None known 000 ft. +)
D.-Width: 305 miles
E.-Length: 300 miles

15. **Southern Entrance to Caribbean-No Name**
A.-Lat. 11° 30'N Long. 61° 30'W
B.-Bounded By:
North-Grenada Island
East-Tobago Island
South-Trinidad and Venezuela
C.-Draft Limits: None known 000 ft. +)
D.-Width: 18 miles (Tobago Island to Trinidad and Venezuela); 70.5 miles (Tobago Island to Grenada Island)
E.-Length: 99 miles

16. **Cook Strait**
A.-Lat. 41° 22'S Long. 174° 25'E
B.-Bounded By:
North-North Island, New Zealand
South-South Island, New Zealand
C.-Draft Limits: Some shoal area in North end but basically no known limitations.
D.-Width: 11.75 miles
E.- Length: 54 miles

17. **Cuyo East Pass and Mindoro Strait**
A.-Lat. 12° OO'N Long. 121° OO'E
B.-Bounded By:
Various Philippine Islands
C.-Draft Limits: None known 000 ft. +)
D.-Width: 17 miles
E.-Length: 176 miles

18. **Dardanelles**
A.-Lat. 40° OO'N Long. 26° 15'E
B.-Bounded By:
Turkey
C.-Draft Limits: Draft-none known. Very narrow and winding.

D.-Width: 0.6 mile
E.-Length: 215 miles

19. **Davis Strait**
A.-Lat. 64° OO'N Long. 58° OO'W
B.-Bounded By:
East-Greenland
West-Baffin Island, Canada
C.-Draft Limits: Ice. No known draft limit (100 ft. +)
D.-Width: 172 miles
E.-Length: 360 miles

20. **Dominica Channel**
A.-Lat. 15° OO'N Long. 61° 15'W
B.-Bounded By:
North-Dominica Island
South-Martinique Island
C.-Draft Limits: None known 000 ft. +)
D.-Width: 22 miles
E.-Length: 18 miles

21. **Dover Straits**
A.-Lat. 51° OO'N Long. 1° 23'E
B.-Bounded By:
West-England
East-France
C.-Draft Limits: Undetermined, about 70 ft.
D.-Width: 17.5 miles
E.-Length: 35 miles

22. **Straits of Florida**
A.- Lat. 26° OO'N Long. 79° 40'W
B.-Bounded By:
East-Bahama Islands (Br.)
South-Cuba
West and North-Florida, U.S.A.
C.-Draft Limits: None known ODD ft. +)
D.-Width: 42 miles
E.-Length: 100 miles

23. **Formosa Strait**
A.-Lat. 24° 30'N Long. 120° OO'E
B.-Bounded By:
East-Taiwan
West-China (Mainland)
C.-Draft Limits: None known ODD ft. +)
D.-Width: 67 miles
E.-Length: 200 miles

24. **Strait of Gibraltar**
A.-Lat. 35° 50'N Long. 5° 40'W
B.-Bounded By:
North-Gibraltar (Br.) and Spain
South-Morocco
C.-Draft Limits: None known ODD ft. +)
D.-Width: 8 miles
E.-Length: 20 miles

25. **Straits of Hormuz-Entrance** to the Persian Gulf
A.-Lat. 25° OO'N Long. 58° OO'E
B.-Bounded By:
North-Iran
Northeast-Pakistan
South-Muscat
West-Trudal States
Northwest-Ru'us-Al-Jibal
C.-Draft Limits: None known ODD ft. +)
D.-Width: 20.6 miles
E.-Length: 100 miles

26. **Hudson Strait**
A.-Lat. 62° OO'N Long. 70° OO'W
B.-Bounded By:
North-Baffin Island-Canada
South-Canada
C.-Draft Limits: Ice. No known draft limit 000 ft. +)
D.-Width: 35 miles
E.-Length: 285 miles

27. **Korea Strait**
A.-Lat. 34° OO'N Long. 129° OO'E
B.-Bounded By:
East and South- Japan
Northwest-Korea
C.-Draft Limits: None known 000 ft. +)
D.-Width: 23 miles
E.-Length: 217 miles

28. **La Perouse Strait**
A.-Lat. 45° 42'N Long. 142° OO'E
B.-Bounded By:
North-Sakhalin Island, U.S.S.H.
South-Hokkaido, Japan

C.-Draft Limits: None known (100 ft. +)
D.-Width: 19 miles
E.-Length: 30 miles

29. **Ligurian Sea to Tyrrhenian Sea**
A.-Lat. 42° 50'N Long. 9° 50'E
B.-Bounded By:
East-Italy
West-Corsica
C.-Draft Limits: None known ODD ft. +)
D.-Width: 9 miles
E.-Length: 60 miles

30. **Lombok Straits**
A.-Lat. 8° 40'S Long. 116° OO'E
B.-Bounded By:
East-Lombok Island, Indonesia
West-Bali Island, Indonesia
C.-Draft Limits: None known ODD ft. +)
D.-Width: II miles
E.-Length: 35 miles

31. **Luzon Strait**
A.-Lat. 21° 00'N Long. 121° OO'E
B.-Bounded By:
North-Taiwan
South-Luzon, Philippines
C.-Draft Limits: None known (100 ft. +)
D.-Width: 24 miles (Balintang Channel); 40.5 miles (Bashi Channel)
E.-Length: 175 miles

32. **Magellan Strait**
A.-Lat. 53° OD'S Long. 70° 35'W
B.-Bounded By:
North-Argentina and Chile
South-Argentina and Chile
C.-Draft Limits: Quite narrow at places. No known draft limit.
D.-Width: I mile
E.-Length: 310 miles

33. **Strait of Makassar**
A.-Lat. 0° 30'S Long. 118° 40'E
B.-Bounded By:
East-Sulawesi (Celebes), Indonesia
West-Kalimantan, Borneo, Indonesia
C.-Draft Limits: None known ODD ft. +)
D.-Width: 45 miles
E.-Length: 140 miles

34. **Malacca Straits**
A.-Lat. 3° 00'N Long. 100° 25'E
B.-Bounded By:
North and East-Malaya, Malaysia
South and West-Sumatra, Indonesia
C.-Draft Limits: About 65 ft.
D.-Width: 7.5 miles
E.-Length: 500 miles

35. **Strait of Messina**
A.-Lat. 38° 13'N Long. 15° 35'E
B.-Bounded By:
East-Italy
West-Sicily
C.-Draft Limits: About 45 ft. to 50 ft. Very narrow passage.
D.-Width: 1.5 miles
E.-Length: 21 miles

36. **Mindanao Sea and Surigao Strait**
A.-Lat. 10° OO'N Long. 125° 00'E
B.-Bounded By:
Various Philippine Islands
C.-Draft Limits: None known 000 ft. +)
D.-Width: 8 miles
E.-Length: 204 miles

37. **Mocambique Channel**
A.-Lat. 17° OD'S Long. 42° OO'E
B.-Bounded By:
East-Madagascar
West-Mocambique
C.-Draft Limits: None known 000 ft. +)
D.-Width: 193 miles
E.-Length: 480 miles

38. **Molucca Passage**
A.-Lat. 1° 00'N Long. 127° OO'E
B.-Bounded By:
East-Halmahera Island, Indonesia

West-Celebes Island, Indonesia
C.-Draft Limits: None known 000 ft. +)
D.-Width: 58 miles
E.-Length: 165 miles

39. **Mona Passage**
A.-Lat. 18° 15'N Long. 67° 40'W
B.-Bounded By:
East-Puerto Rico
West-Dominican Republic
Middle-Mona Island
C.-Draft Limits: None known 000 ft. +)
D.-Width: 26.35 miles
E.-Length: 48 miles

40. **North Channel to Irish Sea**
A.-Lat. 55° IO'N Long. 5° OO'W
B.-Bounded By:
North and East-Scotland
South and West-Northern Ireland
C.-Draft Limits: None known 000 ft. +)
D.-Width: 11 miles
E.-Length: 90 miles

41. **Old Bahama Channel**
A.-Lat. 22° 30'N Long. 77° 55'W
B.-Bounded By:
Northeast-Bahama Islands
South and West-Cuba
C.-Draft Limits: None known ODD ft. +)
D.-Width: 12.5 miles
E.-Length: 360 miles

42. **Ombai Strait**
A.-Lat. 8° 30'S Long. 125° OO'E
B.-Bounded By:
Northeast-Wetar Island, Indonesia
Southeast-Timor Island, Indonesia
Northwest-Alor Island, Indonesia
C.-Draft Limits: None known (100 ft. +)
D.-Width: 16.5 miles
E.-Length: 58 miles

43. **Osumi Strait**
A.-Lat. 31° OD'N Long. 131° OD'E
B.-Bounded By:
North-Kyushu Island, Japan
South-Various Japanese Islands
C.-Draft Limits: None known (100 ft. +)
D.-Width: 16 miles
E.-Length: 50 miles

44. **Palk Strait**
A.-Lat. 10° OD'N Long. 80° OO'E
B.-Bounded By:
Southeast-CeyIon
Northwest-India
C.-Draft Limits: None known ODD ft. +)
D.-Width: 4 miles
E.-Length: 108 miles

45. **Persian Gulf**
A.-Lat. 25° OD'N Long. 52° OD'E
B.-Bounded By:
North-Iraq
Northeast and East-Iran
South-Trudal States
West-Qatar, Saudi Arabia, Neutral Zone, and Kuwait
C.-Draft Limits: None known ODD ft. +)
D.-Width: 21 miles
E.-Length: 500 miles

46. **Providence and Northwest Providence Channels**
A.-Lat. 25° 45'N Long. 77° 10'W
B.-Bounded By:
North, East and South-Bahama Islands
West-Florida, U.S.A.
C.-Draft Limits: None known 000 ft. +)
D.-Width: 26 miles
E.-Length: 140 miles

47. **Red Sea**
A.-Lat. 20° OD'N Long. 39° OD'E
B.-Bounded By:
North-Israel held territory
East-Saudi Arabia and Yemen

South-Ethiopia
West-Sudan and Egypt
C.-Draft Limits: None known 000 ft. +)
D.-Width: 4 miles
E.-Length: 1500 miles

48. **Sibutu Passage**
A.-Lat. 4° 52′N Long. 119° 40′E
B.-Bounded By:
Northeast- Tawitawi Islands, Philippines
Southwest- Sabah (Borneo), Malaysia
C.-Draft Limits: None known 000 ft. +)
D.-Width: 18 miles
E.-Length: 18 miles

49. **Silver Bank Mouchair, Turks Is., Caicos, and Magaguana Passages**
A.-Lat. 20° 30′N to 22° OD'N Long. 70° OO'W to 73° 30′W
B.-Bounded By:
Bahama Island Chain
C.-Draft Limits: None known 000 ft. +)
D.-Width: 10 miles
E.-Length: 62 miles

50. **Strait of Sicily**
A.-Lat. 37° 15'N Long. 12° OD'E
B.-Bounded By:
East-Sicily
Southwest-Tunisia
C.-Draft Limits: None known 000 ft. +)
D.-Width: 38 miles
E.-Length: 215 miles

51. **Singapore Strait**
A.-Lat. 1° ITN Long. 103° 55'E
B.-Bounded By:
North-Singapore and Malaya
South-Sumatra, Indonesia
C.-Draft Limits: About 65 ft.
D.-Width: 2.5 miles
E.-Length: 48 miles

52. **Skagerrak**
A.-Lat. 58° OD'N Long. 10° 0D'E
B.-Bounded By:
Northeast-Sweden
South-Denmark
Northwest-Norway
C.-Draft Limits: None known 000 ft. +)
D.-Width: 61 miles
E.-Length: 100 miles

53. **St. Georges Channel**
A.-Lat. 52° OD'N Long. 6° OO'W
B.-Bounded By:
East-Wales
West-Ireland
C.-Draft Limits: None known 000 ft. +)
D.-Width: 35 miles
E.-Length: 40 miles

54. **St. Lucia Channel**
A.-Lat. 14° 1D'N Long. 60° 55'W
B.-Bounded By:
North-Martinique Island
South-St. Lucia Island
C.-Draft Limits: None known 000 ft. +)
D.-Width: 17 miles
E.-Length: 15 miles

55. **Sunda Strait**
A.-Lat. 6° 05'N Long. 105° 30′E
B.-Bounded By:
North-Sumatra, Indonesia
East-Java, Indonesia
C.-Draft Limits: About 40 ft. draft. Many shoals poorly marked or unmarked. Sparse soundings.
D.-Width: 3.5 miles
E.-Length: 48 miles

56. **Tablas Strait**
A.-Lat. 13° OD'N Long. 121° 40′E
B.-Bounded By:
Various Philippine Islands
C.-Draft Limits: Quite narrow at Northwest end. Draft-none known.
D.-Width: 4 miles
E.-Length: 110 miles

57. **Torres Strait**
A.-Lat. 10° OO'S Long. 142° 30′E

B.-Bounded By:
North-Papua (New Guinea)
South-Australia
C.-Draft Limits: About 40 ft. Numerous shoals and reefs.
D.-Width: 2.2 miles
E.- Length: 100 miles

58. **Tsugaru Strait**
A.- Lat. 41° 30'N Long. 40° 35'E
B.- Bounded By:
North-Hokkaido
South- Honshu
C.-Draft Limits: None known ODD ft. +)
D.-Width: 10 miles
E.-Length: 69 miles

59. **Unimak Pass**
A.-Lat. 54° 25'N Long. 165° lO'W
B.- Bounded By:
Aleutian Islands, Alaska, U.S.A.
C.-Draft Limits: None known 000 ft. +)
D.-Width: 10 miles
E.-Length: 28 miles

60. **Vitiaz Strait**
A.-Lat. 6° OD'S Long. 147° 48'E
B.-Bounded By:
Northeast-New Britain, Bismarck Arch.
South and West-New Guinea
C.-Draft Limits: None known. Narrow.
D.-Width: 20 miles
E.- Length: 188 miles

61. **Windward Passage**
A.- Lat. 20° OO'N Long. 73° 50'W
B.-Bounded By:
North-Great Inagua Island
East-Republic of Haiti
Southwest-Jamaica Island
West-Cuba
C.-Draft Limits: None known ODD ft. +)
D.-Width: 45 miles
E.-Length: 50 miles

62. **Yucatan Channel**
A.- Lat. 21° 45'N Long. 86° OO'W
B.-Bounded By:
East-Cuba
West-Mexico
C.-Draft Limits: None known 000 ft. +)
D.–Width: 103 miles
E.-Length: 62 miles

Alternate Routes and Variation of Distances

1. **Persian Gulf (Mina Al Ahmadi -Kuwait) to U.S. West Coast (San Francisco)**

(a) Via Singapore Str.	11,177
(b) Via Sunda Str.	11,702
(c) Via Lombok Str.	11,916
(d) Via Ombai-Wetar Str.	12,100
(e) Via Torres Str.	12,553
(f) Via Bass Str.	13,784
(g) Via C. of Good Hope & Magellan Str.	15,547
(h) Via C. of Good Hope & C. Horn	15,642

2. **Persian Gulf (Mina Al Ahmadi -Kuwait) to U.S. Atlantic Coast (Philadelphia)**

(a) Via C. of Good Hope	11,994
(b) Via Bass Str. & Magellan Str.	19,543
(c) Via Bass Str. & C. Horn	19,607
(d) Via Torres Str. & Magellan Str.	20,434

3. **Persian Gulf (Mina Al Ahmadi -Kuwait) to U.S. Gulf Coast (Port Arthur)**

(a) Via C. of Good Hope & Old Bahama Ch.	12,558
(b) Via C. of Good Hope & Providence Ch.	12,660
(c) Via C. of Good Hope & Yucatan Ch.	12,621
(d) Via Bass Str. & Magellan Str.	20,075
(e) Via Bass Str. & C. Horn	20,139
(f) Via Torres Str. & Magellan Str.	20,966

The following transportation cost estimates are based on the following assumptions:

1. Vessel Size: 250,000 DWT
2. Loaded Draft: 65 feet
3. Ballast Draft: 40 feet
4. Loading Port: Persian Gulf, Mina Al Ahmadi-Kuwait
5. Discharge Ports:
   a) U.S. East Coast-Philadelphia, Pennsylvania
   b) U.S. Gulf Coast-Port Arthur, Texas
   c) U.S. West Coast-San Francisco, California
6. Trade Route Assumptions:
   a) Vessels permitted to freely pass Cape of Good Hope
   b) Vessels *not* permitted to pass Cape of Good Hope
   c) Vessels required to use Cape Horn and/or Torres and Magellan Straits
   d) Vessels permitted to use Straits of Ma1acca
   e) Vessels *not* permitted to use Straits of Malacca and alternate options
7. Vessels permitted to transit the Suez Canal (when and if reopened) in ballast condition.
8. Vessels permitted to transit the Suez Canal (when and if reopened and if dredged to sufficient depth) in loaded condition.

The figures provided are based on the prevailing operating cost existing December 1972 and the trade/ alternate trade routes are provided to show economic impact in the event the concept of "mere transit" were not to prevail and alternate, less desirable trade routes became a reality. While the combinations of trade/ alternate trade routes could in some instances become quite extensive, the following examples are intended to depict the major marine transportation considerations realtive to the U.S. petroleum supply future.

Alternate Tanker Routes: Persian Gulf-United States.

TRANSPORTATION COST ESTIMATES
UTILIZING ALTERNATE ROUTES

TRIP: Persian Gulf TO: Philadelphia, Pa. SHIP SIZE: 250,000 Deadweight Tons

	Cape of Good Hope Cape of Good Hope	Cape of Good Hope Suez Canal	Suez Canal Suez Canal
Mileage:			
One Way	11,994	11,994	8,546
Round Trip	23,988	20,540	17,092
Canal or River		87	174
At Sea less Canal	23,988	20,453	16,918
Sailing Days:			
At Sea 15.4 Knots or 370 Miles/Day	64.83	55.28	45.72
Canal or River		1.00	2.00
In Port	4.00	4.00	4.00
TOTAL TRIP	68.83	60.28	51.72
TRIPS/YEAR	5.01	5.72	6.67
Fuel Consumption:			
At Sea 156 Tons/Day	10,113	8,624	7,132
Canal or River		156	312
In Port	312	312	312
TOTAL FUEL/TRIP	10,425	9,092	7,756
TOTAL FUEL/YEAR	52,229	52,006	51,733
Bunker Price $13.30/Ton.			
Deadweight:	250,000	250,000	250,000
Less: Fuel	10,425	9,092	7,756
Spares ¼ of 1 way	1,264	1,264	892
Stores	600	600	600
Cargo:			
Tons/Trip	237,711	239,044	240,752
Tons/Year	1,190,932	1,367,332	1,605,816
Barrels/Year @ 7.4 Barrels/Ton	8,812,897	10,118,257	11,883,038
Barrels/Day 365 Days	24,145	27,721	32,556
Total Cost:			
Time Charter Hire*	6,706,303	6,706,303	6,706,303
Fuel	694,646	691,680	688,049
Port Charges $39,500/Trip	198,895	225,940	263,465
Canal Tolls		1,396,526	1,429,176
TOTAL COST	7,599,844	9,020,449	9,086,993
Cost/Ton	$ 6.381	$ 6.597	$ 5.659
Cost/Barrel	.862	.892	.765

* Based on average time charter hire rates for month of December 1972.

TRANSPORTATION COST ESTIMATES
UTILIZING ALTERNATE ROUTES

TRIP: Persian Gulf TO: Philadelphia, Pa. SHIP SIZE: 250,000 Deadweight Tons

	Cape of Good Hope	Bass Strait . Magellan Strait	Bass Strait Cape Horn	Torres Strait Magellan Strait
Mileage:				
One Way	11,994	19,543	19,607	20,434
Round Trip	23,988	39,086	39,214	40,868
Canal or River		620		620
At Sea less Canal	23,988	38,466	39,214	40,248
Sailing Days:				
At Sea 15.4 Knots or 370 Miles/Day	64.83	103.96	105.98	108.78
Canal or River		2.00		2.00
In Port	4.00	4.00	4.00	4.00
TOTAL TRIP	68.83	109.96	109.98	114.78
TRIPS/YEAR	5.01	3.14	3.14	3.01
Fuel Consumption:				
At Sea 156 Tons/ Day	10,113	16,218	16,533	16,970
Canal or River		312		312
In Port	312	312	312	312
TOTAL FUEL/TRIP	10,425	16,842	16,845	17,594
TOTAL FUEL/YEAR	52,229	52,884	52,893	52,958
Bunker Price $13.30/Ton				
Deadweight:	250,000	250,000	250,000	250,000
Less: Fuel	10,425	16,842	16,845	17,594
Spares ¼ of 1 way	1,264	2,027	2,067	2,121
Stores	600	600	600	600
Cargo:				
Tons/Trip	237,711	230,531	230,488	229,685
Tons/Year	1,190,932	723,867	723,732	691,352
Barrels/Year @ 7.4 Barrels/Ton	8,812,897	5,356,616	5,355,617	5,116,005
Barrels/Day 365 Days	24,145	14,676	14,673	14,016
Total Cost:				
Time Charter Hire*	6,706,303	6,706,303	6,706,303	6,706,303
Fuel	694,646	703,357	703,477	704,341
Port Charges $39,500/Trip	198,895	124,030	124,030	118,895
Canal Tolls $3,000ITrip		9,420		9,030
TOTAL COST/YEAR	7,599,844	7,543,110	7,533,810	7,538,569
Cost/Ton	$ 6.381	$ 10.421	$ 10.410	$ 10.904
Cost/Barrel	.862	1.409	1.407	1.474

* Based on average time charter hire rates for month of December 1972.

TRANSPORTATION COST ESTIMATES
UTILIZING ALTERNATE ROUTES

TRIP: Persian Gulf TO: Port Arthur, Texas SHIP SIZE: 250,000 Deadweight Tons

	Cape of Good Hope Bahama Channel	Cape of Good Hope Yucatan Channel	Cape of Good Hope Providence Channel
Mileage:			
One Way	12,558	12,621	12,660
Round Trip	25,116	25,242	25,320
Canal or River			
At Sea less Canal	25,116	25,242	25,320
Sailing Days:			
At Sea 15.4 Knots or 370 Miles/Day	67.88	68.22	68.43
Canal or River			
In Port	4.00	4.00	4.00
TOTAL TRIP	71.88	72.22	72.43
TRIPS/YEAR	4.80	4.78	4.76
Fuel Consumption:			
At Sea 156 Tons/Day	10,589	10,642	10,675
Canal or River			
In Port	312	312	312
TOTAL FUEL/TRIP	10,901	10,954	10,987
TOTAL FUEL/YEAR	52,325	52,360	52,298
Bunker Price $13.30/Ton			
Deadweight:	250,000	250,000	250,000
Less: Fuel	10,901	10,954	10,987
Spares ¼ of 1 way	1,324	1,330	1,334
Stores	600	600	600
Cargo:			
Tons/Trip	237,175	237,116	237,079
Tons/Year	1,138,440	1,133,414	1,128,496
Barrels/Year @ 7.4 Barrels/Ton	8,424,456	8,387,264	8,350,870
Barrels/Day 365 Days	23,081	22,979	22,879
Total Cost:			
Time Charter Hire*	6,706,303	6,706,303	6,706,303
Fuel	695,923	696,388	695,563
Port Charges $31,500/Trip	151,200	150,570	149,940
Canal Tolls			
TOTAL COST/YEAR	7,553,426	7,553,261	7,551,806
Cost/Ton	$ 6.635	$ 6.664	$ 6.692
Cost/Barrel	.897	.901	.904

* Based on time charter hire rates for month of December 1972.

TRANSPORTATION COST ESTIMATES
UTILIZING ALTERNATE ROUTES

TRIP: Persian Gulf TO: Port Arthur, Texas SHIP SIZE: 250,000 Deadweight Tons

	Bass Strait Magellan Strait	Bass Strait Cape Horn	Torres Strait Magellan Strait
Mileage:			
One Way	20,075	20,139	20,966
Round Trip	40,150	40,278	41,932
Canal or River	620		620
At Sea less Canal	39,530	40,278	41,312
Sailing Days:			
At Sea 15.4 Knots or 370 Miles/Day	106.84	108.86	111.65
Canal or River	2.00		2.00
In Port	4.00	4.00	4.00
TOTAL TRIP	112.84	112.86	117.65
TRIPS/YEAR	3.06	3.06	2.93
Fuel Consumption:			
At Sea 156 Tons/Day	16,667	16,982	17,417
Canal or River	312		312
In Port	312	312	312
TOTAL FUEL/TRIP	17,291	17,294	18,041
TOTAL FUEL/YEAR	52,910	52,920	52,860
Bunker Price $13.30/Ton			
Deadweight:	250,000	250,000	250,000
Less: Fuel	17,291	17,294	18,041
Spares ¼ of 1 way	2,083	2,123	2,177
Stores	600	600	600
Cargo:			
Tons/Trip	230,026	229,983	229,182
Tons/Year	703,880	703,748	671,503
Barrels/Year @ 7.4 Barrels/Ton	5,208,712	5,207,735	4,969,122
Barrels/Day 365 Days	14,270	14,268	13,614
Total Cost:			
Time Charter Hire*	6,706,303	6,706,303	6,706,303
Fuel	703,703	703,836	703,038
Port Charges $31,500/Trip	96,390	96,390	92,295
Canal Tolls $3,000/T.rip	9,180		8,790
TOTAL COST!YEAR	7,515,576	7,506,529	7,510,426
Cost/Ton	$ 10.677	$ 10.677	$ 11.185
Cost/Barrel	1.443	1.441	1.511

* Based on time charter hire rates for month of December 1972.

TRANSPORTATION COST ESTIMATES
UTILIZING ALTERNATE ROUTES

TRIP: Persian Gulf TO: San Francisco, Calif. SHIP SIZE: 250,000 Deadweight Tons

	Singapore Strait	Sunda Strait	Lombok Strait	Ombai Strait
Mileage:				
One Way	11,177	11,702	11,916	12,100
Round Trip	22,234	23,404	23,823	24,200
Canal or River				
At Sea less Canal	22,234	23,404	23,823	24,200
Sailing Days:				
At Sea 15.4 Knots or 370 Miles/Day	60.09	63.25	64.41	65.41
Canal or River				
In Port	4.00	4.00	4.00	4.00
TOTAL TRIP	64.09	67.25	68.41	69.41
TRIPS/YEAR	5.38	5.13	5.04	4.97
Fuel Consumption:				
At Sea 156 Tons/Day	9,374	9,867	10,048	10,204
Canal or River				
In Port	312	312	312	312
TOTAL FUEL/TRIP	9,686	10,179	10,360	10,516
TOTAL FUEL/YEAR	52,111	52,218	52,214	52,265
Bunker Price $13.30/Ton				
Deadweight:	250,000	250,000	250,000	250,000
Less: Fuel	9,686	10,179	10,360	10,516
Spares ¼ of 1 way	1,211	1,233	1,256	1,276
Stores	600	600	600	600
Cargo:				
Tons/Trip	238,503	237,988	237,784	237,608
Tons/Year	1,283,146	1,220,878	1,198,431	1,180,912
Barrels/Year @ 7.4 Barrels/Ton	9,495,280	9,034,497	8,868,389	8,738,749
Barrels/Day 365 Days	26,015	24,752	24,297	23,942
Total Cost:				
Time Charter Hire*	6,706,303	6,706,303	6,706,303	6,706,303
Fuel	693,076	694,499	694,460	695,125
Port Charges	169,470	161,595	158,760	156,555
Canal Tolls				
TOTAL COST/YEAR	7,568,849	7,562,397	7,559,523	7,557,983
Cost/Ton	$ 5.899	$ 6.194	$ 6.308	$ 6.400
Cost/Barrel	.797	.837	.852	.865

* Based on time charter hire rates for month of December 1972.

TRANSPORTATION COST ESTIMATES
UTILIZING ALTERNATE ROUTES

TRIP: Persian Gulf TO: San Francisco, Calif. SHIP SIZE: 250,000 Deadweight Tons

	Torres Strait	Bass Strait	Cape of Good Hope Magellan Strait	Cape of Good Hope Cape Horn
Mileage:				
One Way	12,553	13,784	15,547	15,642
Round Trip	25,106	27,568	31,094	31,284
Canal or River			620	
At Sea less Canal	25,106	27,568	30,474	31,284
Sailing Days:				
At Sea 15.4 Knots or 370 Miles/Day	67.85	74.51	82.36	84.55
Canal or River			2.00	
In Port	4.00	4.00	4.00	4.00
TOTAL TRIP	71.85	78.51	88.36	88.55
TRIPS/YEAR	4.80	4.39	3.90	3.90
Fuel Consumption:				
At Sea 156 Tons/Day	10,585	11,624	12,848	13,190
Canal or River			312	
In Port	312	312	312	312
TOTAL FUEL/TRIP	10,879	11,936	13,472	13,502
TOTAL FUEL/YEAR	52,306	52,399	52,541	52,658
Bunker Price $13.30/Ton				
Deadweight:	250,000	250,000	250,000	250,000
Less: Fuel	10,879	11,936	13,472	13,502
Spares ¼ of 1 way	1,323	1,453	1,606	1,649
Stores	600	600	600	600
Cargo:				
Tons/Trip	237,180	236,011	234,322	234,249
Tons/Year	1,138,464	1,036,088	913,856	913,571
Barrels/Year @ 7.4 Barrels/Ton	8,423,634	7,667,051	6,762,534	6,760,425
Barrels/Day 365 Days	23,081	21,006	18,528	18,522
Total Cost:				
Time Charter Hire*	6,706,303	6,706,303	6,706,303	6,706,303
Fuel	695,670	696,907	698,795	700,351
Port Charges $31,500/Trip	151,200	138,285	122,850	122,805
Canal Tolls $3,OOO/Trip			11,700	
TOTAL COST/YEAR	7,553,173	7,541,495	7,539,648	7,529,504
Cost/Ton	$ 6.635	$ 7.279	$ 8.250	$ 8.242
Cost/Barrel	.897	.984	1.115	1.114

* Based on time charter hire rates for the month of December 1972.

Existing Law Relating to Navigation

Existing rules of international law governing the navigation of vessels differ between the three principal zones: the high seas, where freedom of navigation is the basic rule; Coastal State territorial seas, where freedom of navigation is subject only to the qualification that passage must be "innocent"; and internal (and possibly archipelagic) waters, where there is no freedom of navigation except as permitted by the State having sovereignty over such waters. There are also special considerations having to do with so-called "international straits" lying within either the territorial sea or the internal waters of a Coastal State.

1. Navigation in Territorial Waters

Territorial Sea

International law has long recognized that the sovereignty of Coastal States extends beyond their land territory and internal waters to a belt of sea adjacent to their coasts described as the territorial sea. In its territorial sea, a Coastal State exercises not absolute sovereignty, but sovereignty qualified by applicable rules of international law. The concept of a territorial sea under the sovereignty of the Coastal State is recognized in Article 1 of the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone.! Forty-three states have ratified this Convention.

So far as navigation is concerned the most important limitation on the sovereignty of the Coastal State in its territorial sea is the established right of foreign vessels to make "innocent passage" through the territorial sea. The right of innocent passage is recognized in Article 14 of the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone.[2]

The right of innocent passage represents an attempt to reconcile the principle of freedom of navigation with the recognized interests of Coastal States in exercising sovereignty over vessels within their territorial seas. Innocent passage may therefore best be characterized as a "qualified immunity" from the jurisdiction of the Coastal State. Whether a vessel may claim this qualified immunity depends on whether it complies with the conditions enumerated in paragraph 4 of Article 14 of the 1958 Geneva Convention which essentially represent existing international law and which provide:

> *"Passage is innocent* so *long* as *it is not prejudicial* to *the* peace, *good order* or *security of the Coastal State. Such passage shall take place in conformity with these articles and with other rules of internationallaw."*

It is the Coastal State which makes the determination of whether passage is innocent or not.[3] The discretion of the Coastal State, while considerable under the above criteria, is limited to some extent. For instance, a draft article contained in the report of the Territorial Sea Commission at the 1930 Hague Conference [4] would have permitted a Coastal State to consider as non-innocent not only passage which was prejudicial to the security of the Coastal State but to its public policy or fiscal interests as well.[5] The definition contained in the 1958 Geneva Convention constitutes a recognition that the 1930 draft would not adequately have limited the discretion of the Coastal States in determining whether a particular passage was innocent.[6]

Moreover, the standards to be applied by the Coastal State in determining whether passage is innocent must be viewed in the light of the 1949 *Corfu Channel* [7] decision of the International Court of Justice which figured prominent-

ly in the debates leading to the adoption of paragraph 4 of Article 14 of the 1958 Geneva Convention.

The case involved a dispute between the United Kingdom and Albania which resulted from two British warships having struck mines moored in Albanian territorial waters which encompass the Corfu Channel, an international strait. The Court rejected Albania's contention that the passage of the warships could not be deemed to be innocent since such passage was intended as a political show of force to intimidate the Albanian Government. In holding that Albania acted in derogation of the right of innocent passage the Court announced what can be characterized as an objective test for determining whether passage is innocent. Passage should be judged as innocent or non-innocent by examining the particular manner of passage rather than its motive. In the case of merchant vessels this would seem to preclude a Coastal State from prohibiting passage for reasons not relating to the act of passage itself, but there is no direct authority for this proposition and the matter is not free from doubt.[8]

Even where passage is determined to be innocent, a Coastal State may prescribe reasonable rules and regulations governing such passage through its territorial sea especially to ensure safe and orderly navigation. Article 17 of the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone provides:

> */lForeign ships exercising the right of innocent passage shall comply with the laws and regulations enacted by the Coastal State in conformity with these articles and other rules of international law and, in particular, with such laws and regulations relating to transport and navigation./I*

There is some question whether such regulations must be applied on a non-discriminatory basis, and while this may be the general rule, the International Law Commission has recognized that special rights of passage granted by one State to another may be justified under some circumstances.[9]

There is also some question whether international law permits a Coastal State to demand and obtain information on the nationality, tonnage, origin and destination of passing vessels. The International Law Commission has recognized that such a right does exist in certain circumstances, but was opposed to including a specific provision in its 1956 draft articles because of the dangers of abuse.[10] In any case, international law would clearly prohibit the exercise of such a right in a manner so as to constitute an unreasonable interference with navigation.

As it has evolved in the custom and practice of nations, the right of innocent passage imposes certain affirmative obligations upon Coastal States. Consequently, Article 15 of the 1958 Geneva Convention provides that:

> */II. The Coastal State must not hamper innocent passage through the territorial* sea.
>
> *2. The Coastal State is required to give appropriate publicity to any dangers to navigation, of which it has knowledge, within its territorial sea./I*

Moreover, Article 18 of the 1958 Geneva Convention provides as follows:

> */1.* No *charge may be levied upon foreign ships by reason only of their passage through the territorial* sea.
>
> *2. Charges may be levied upon* a *foreign ship passing through the territorial* sea as *payment only for specific services rendered to the ship. These charges shall be levied without discrimination./I*

A Coastal State may take whatever steps are necessary to prevent passage which is non-innocent and in the exercise of this right may verify the innocent character of the passage or even suspend temporarily the right of innocent passage if this is deemed essential by the Coastal State for the protection of its security. The rights of the Coastal State in this regard are provided for in paragraphs 1 and 3 of Article 16 of the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone:

> *"1. The Coastal State may take the necessary steps in its territorial* sea *to prevent passage which is not innocent.*
>
> * * *
>
> *3. Subject to the proVIsIons of paragraph* 4,* *the Coastal State may, without discrimination amongst foreign ships, suspend temporarily in specified areas of its territorial sea the innocent passage of foreign ships if such suspension is essential for the protection of its security. Such suspension shall take effect only after having been duly published."*

A 1954 draft of paragraph 3 prepared by the International Law Commission suggested that existing international law would have permitted suspension of the right of innocent passage not only for reasons of security but for compelling reasons of public order.[11] However, in 1956 the term "public order" was deleted by the Commission on the basis that it was open to various interpretations.[12]

There has historically been some disagreement as to whether vessels proceeding to or from ports enjoy the same right of innocent passage as vessels traversing the territorial sea or are subject to an entirely different set of rules. It has been argued by some that the Coastal State has a greater jurisdictional interest in exercising control over vessels en route to or from its ports.[13] This difference in jurisdictional interest has been taken into account by the 1958 Geneva Convention which, while applying the doctrine of innocent passage to vessels en route to and from ports, expressly recognizes several special rules which apply to such vessels. Article 16, paragraph 2, for example, authorizes the Coastal State in the case of vessels proceeding to its internal waters to take whatever steps may be necessary to prevent any breach of the conditions to which admission to those waters is subject. In a similar manner Article 19, paragraph 2, permits the boarding of a foreign vessel in the territorial sea for the purposes of making an arrest or investigating a crime even after the vessel has left internal waters and Article 20, paragraph 3, confers a similar right with respect to civil proceedings and the levy of execution on vessels which have left internal waters.

2. Navigation in Internal and Archipelagic Waters

Internal Waters

There is no right of innocent passage for foreign vessels in internal waters such as bays or estuaries. Internal waters are subject to the absolute sovereignty of the Coastal State.

There was never a serious problem with this rule until the straight baseline method of measuring the territorial sea was approved by the International Court of Justice in 1951 in the *Anglo-Norwegian Fisheries* case.[14] Until that time internal waters had been understood to encompass waters almost exclusively behind the coastline since the territorial sea was historically measured from the low waterline along the coast. While the decision in the case related solely to the method

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

of measuring the territorial sea it had the important secondary effect of extending the internal waters of a Coastal State to include offshore waters between the coast and the baseline. The result would be to transform some waters which are geographically part of the sea and possibly essential to international navigation into internal waters as to which there is no right of innocent passage.

Consequently, in 1956 the United Kingdom proposed that where territorial waters are transformed into internal waters by the straight baseline method of measurement that the previously existing right of innocent passage should continue undisturbed.[15] This position was adopted in paragraph 2 of Article 5 of the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone which provides:

> "2. *Where the establishment* of a *straight baseline in accordance with Article* 4 *has the* effect of en*closing* as *internal* waters areas *which previously had been* con*sidered* as *part* of *the territorial sea* or of *the high seas,* a *right* of *inno*cent *passage,* as *provided in Articles* 14 to 23, *shall exist in those waters."*

Archipelagic Waters

The 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone does not deal with the problem arising from the use of straight baselines to enclose archipelagic waters.[16]

An archipelagic State is essentially any group of two or more islands which can be considered a single entity from a geographical, social, political and economic standpoint. Use of the straight baseline method to delimit territorial waters of archipelagoes results in a line being drawn around the outermost islands until the group as a whole is enclosed. In the case of Indonesia and the Philippines, the two leading proponents of the archipelagic waters theory, the line so drawn would enclose areas of 660,000 and 247,845 square nautical miles respectively.

Maritime States such as the United States reject the drawing of straight baselines to enclose the entire group of islands constituting an archipelago and contend instead that each island should have its own distinct territorial sea with the result that the sea between individual islands beyond the territorial sea of each such island is considered to be high seas and as such is open to free passage by all vessels. While there is as yet no agreed method for the treatment of archipelagic waters, Article 4, paragraph I, of the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone does limit use of the straight baseline method to the case where either "the coastline is deeply indented and cut into," or where there is "a fringe of islands along the coast." The straight baseline method of measurement does not therefore expressly have application to outlying or mid-ocean archipelagoes. Moreover, Article 10 of the 1958 Geneva Convention which deals with islands provides only that their territorial sea shall be measured as provided elsewhere in the Convention. This suggests that the traditional low waterline method should be employed to delimit the territorial seas of archipelagic States. Neither Indonesia nor the Philippines, however, are parties to the 1958 Geneva Convention.

In summary, so far as concerns navigation in a Coastal State's territorial sea the character of the passage as innocent or not is determined by the Coastal State and its determination must be based on whether the act of passage is prejudicial to the peace, good order or security of the Coastal State. Even where passage is determined to be innocent the vessel must still comply with such laws and regulations of the Coastal State as are not in derogation of international law and in particular with laws and regulations relating to transport and navigation. A

Coastal State may temporarily suspend the right of innocent passage on a non-discriminatory basis.

3. Navigation Through International Straits *

Straits Connecting Two Parts of the High Seas

The right of passage through straits has long been a source of special concern in international law because of their vital role in international trade and navigation. While straits may be defined and classified in various ways, their principal characteristic is that they connect one part of the high seas either with another part of the high seas or with the territorial waters of a State. In many cases, there may be no alternative route available, or at least no convenient alternative. It has long been recognized that special rules are necessary to protect the right of passage through straits. Without such rules, passage would be governed only by the general principles applicable to internal waters, territorial seas or the high seas, depending on the location of a particular strait. In the cast of straits lying wholly or partially within internal waters, passage could be denied altogether. In the case of straits lying wholly or partially within the territorial sea of one or more States, the doctrine of innocent passage would permit the temporary suspension of passage. Because of these considerations, certain important straits such as the Danish straits, the Strait of Magellan and the Turkish straits are governed by special treaty arrangements. All other straits are governed by general principles of international law which also take into account the special character of international straits.

The Montreaux Convention of 1936 [17] governs passage through the Turkish straits and was signed by Bulgaria, France, Great Britain, Greece, Japan, Rumania, Turkey, the Union of Soviet Socialist Republics and Yugoslavia. Article 1 of the Convention states that the contracting parties recognize and affirm "the principle of freedom of transit and navigation by sea in the straits." Other articles specifically affirm the principle of unrestricted passage in peacetime by merchant vessels.

In a similar manner, the Argentine-Chile Treaty of 1881 [18] respecting the Strait of Magellan expressly provides that "free navigation is guaranteed to the flags of all nations."

As early as 1857, protests of the United States led to the Treaty of Copenhagen [19] by which Denmark agreed not to detain for any reason American vessels passing through the Danish straits.

International custom and practice has also historically recognized the right of passage of merchant vessels through international straits, at least in time of peace.[20] Even where the Coastal State is at war, neutral merchant vessels have long enjoyed a right of passage through international straits, although subject to certain measures of control such as compulsory pilotage or restrictions on passage at night. Where the Coastal State is neutral during time of war, international law has traditionally prohibited the Coastal State from closing completely that part of its territorial sea comprising an international strait.

The 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone includes the following provision among its rules "applicable to all ships" (Article 16, paragraph 4):

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

Paragraph 4 of Article 16 of the 1958 Geneva Convention set forth above, ap-

* The vagueness of the term "international" straits suggests the utility of the expression "straits used for international navigation."

plies to all straits, "which are used for international navigation." By comparison, the 1956 draft of the International Law Commission contained the qualification "normally used."[21] This more restrictive definition was thought to state the rule of the *Corfu Channel* case where the Court held that the test is not the volume of traffic or the importance of a particular strait for international navigation, but rather the fact of it being a useful route for international maritime traffic.[22]

At the 1958 Geneva Conference the United States proposed deleting the word "normally" from the 1956 draft on the ground that this significant limitation was not in fact required by the decision in the *Corfu Channel* case.[23] The Conference agreed and eliminated "normally" in order to avoid adopting an "extent of use" criterion in determining the applicability of the special rule governing passage through straits.[24] It is therefore not necessary for a State claiming the right of innocent passage first to establish that no alternative route is available or that the strait is "normally" used for international navigation but only the fact that it is so used.

Straits Connecting the High Seas and the Territorial Sea of a Foreign State

The definition of a strait contained in paragraph 4 of Article 16 of the 1958 Geneva Convention is broadly drawn to include straits "between one part of the high seas and ... the territorial sea of a foreign State." This also represents a significant departure from the 1956 draft of the International Law Commission, which applied only to straits connecting two parts of the high seas.[25] The change in the 1958 Geneva Convention was based on a proposal submitted to the Conference by The Netherlands, Portugal and the United Kingdom.[26]

In summary, so far as concerns navigation through international straits whether connecting two parts of the high seas or the high seas and the territorial waters of a State the right of innocent passage may not be suspended. The question remains, however, whether a particular passage is innocent. The determmation of this will be made by the Coastal State in the case of a strait lying wholly or partially within the territorial waters of one or more States. Even where passage is determined to be innocent such passage will still be subject to the rules and regulations of the Coastal State insofar as they are not in derogation of international law. Whether a strait is an international strait is by the conventional view dependent merely upon whether the strait is used for passage between two parts of the high seas or between the high seas and the territorial waters of a State. There is no extent of use or other criterion beyond this.

However, in November, 1971, Indonesia and Malaysia jointly declared that the Malacca Strait "is not an international waterway," but at the same time stated that they would continue to permit innocent passage through the Strait. China and the Philippines have voiced support for the position taken by Indonesia and Malaysia. The legal basis for Malaysia and Indonesia asserting control over the Strait is that it lies within their claimed 12-mile territorial seas.

Russia and Japan have rejected this claim on the ground that the Malacca Strait is an established international waterway forming part of the high seas, and as such, its status cannot thereafter be changed by extension of the territorial seas of individual States. This position finds support in Article 5(2) of the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone, which provides by analogy that if adoption of a straight baseline system of delimitation has the effect of transforming territorial seas into internal waters, a right of innocent passage shall continue to exist in such waters. The position taken by Russia and Japan has subsequently been supported by the United States and the United Kingdom, as well as Singapore,

which also borders on the Strait, but claims only a 3-mile territorial sea.

Indonesia and Malaysia have sought to impose various regulatory measures on vessels passing through the Strait, contending that such measures are wholly lawful under the existing rule of innocent passage. In particular, they have announced their intention to bar passage by all vessels over 200,000 tons, and to require these vessels to use other, less convenient straits. This is claimed to be necessary to avoid alleged navigational and pollution problems.

Both nations have also discussed requiring prior notification of passage by warships, and Indonesia has asserted that it has the right, in accordance with the principle of innocent passage, to halt foreign vessels transporting arms to any war which it opposes. Additionally, while some consideration was given to levying a toll to meet the cost of improving the present navigational aids, Malaysia has since acknowledged that charging a toll of this kind would violate existing international law.

In order to enforce their claimed rights, Indonesia and Malaysia have also announced that they are considering joint naval patrols in the Strait. Meanwhile, they say they will actively seek the support of other nonaligned nations when this matter is taken up at the Law of the Sea Conference.

The ongoing dispute concerning passage through the Malacca Strait draws attention to the many uncertainties in applying existing rules of innocent passage to international straits. The wide divergence of views expressed by various States in connection with the Malacca Strait controversy shows that existing international law on this subject is far from settled, and that an international agreement of some kind will be required to clarify the principle of innocent passage, particularly as it relates to passage through international straits.

References to Appendix G

1 Article 1 states:

"1. The sovereignty of a State extends, beyond its land territory and its internal waters, to a belt of sea adjacent to its coast, described as the territorial sea.

"2. This sovereignty is exercised subject to the provisions of these articles and to other rules of international law." U.N. Doc. A/CONF.13/L.52; II U.N. Conference on the Law of the Sea, Plenary Meetings (A/CONF.13/38), p. 132.

2 Article 14 states in part:

"I. Subject to the provisions of these articles, ships of all States, whether coastal or not, shall enjoy the right of innocent passage through the territorial sea.

"2. Passage means navigation through the territorial sea for the purpose either of traversing that sea without entering internal waters, or of proceeding to internal waters, or of making for the high seas from internal waters.

"3. Passage includes stopping and anchoring, but only insofar as the same are incidental to ordinary navigation or are rendered necessary by force majeure or by distress."

3 This fundamental right of Coastal States is implicit in the basic principle of full Coastal State sovereignty over its territorial sea, subject only to the limited right of innocent passage and other limitations imposed by positive international law on the exercise of its sovereignty. The right of Coastal States to determine the innocence of a particular passage is also recognized in Article 16, paragraph 1, of the 1958 Geneva Convention, which permits a Coastal State to take whatever steps may be necessary to prevent non-innocent passage. Commenting on a similar draft article defining the rights of Coastal States, the Territorial Sea Commission at the 1930 Hague Conference noted:

> "The article gives the Coastal State the right to verify, if necessary, the innocent character of the passage of a vessel and to take the steps necessary to protect itself. . . .At the same time, in order to avoid unnecessary hinderances to navigation, the Coastal State is bound to act with great discretion in exercising this right." Report of the Second Commission (Territorial Sea), Doc. C.230.M.l17. 1930.V., p. 7.

4 The Hague Conference for the Progressive Codification of International Law, held under the auspices of the League of Nations.

5 "Passage is not *innocent* when a vessel makes use of the territorial sea of a Coastal State for the purpose of doing any act prejudicial to the security, to the public policy or to the fiscal interests of that State." League of Nations, Conference for the Progressive Codification of International Law, the Hague, 1930, Doc. C.230.M.l17.l930.V., pp. 6, 7.

6 See generally, Report of the International Law Commission covering the work of its seventh session, 2 May-8 July 1955, U.N. Gen. Ass. Off. Rec. 10th Sess., Supp. No. 9 (A/2934), pp. 34, 45; II Yearbook of the International Law Commission 1955, pp. 19, 39, 51, 59, which includes the following statement:

> "The term 'public policy' . . . being interpretable in different ways, the Commission preferred a text containing no mention of it" (p. 39).

7 *The Corfu Channel* Case (United Kingdom v. Albania), Judgment (Merits), April 9, 1949, r.c.J. Reports 1949, p. 4.

8 On the other hand, Article 14, paragraph 4, of the 1958 Geneva Convention defines innocence in terms of passage rather than specific *acts* committed by the vessel. This has led one observer to comment:

> "In placing emphasis on passage, as such, and not on the *acts* committed during passage the provision has broadened the rights of the Coastal State and would seem to allow it to interfere with passage on such grounds as nature of the cargo or its ultimate destination." Captain Wilfred A. Hearn, USN, Special Assistant to the Judge Advocate General of the Navy, 'The Law of the Sea-The 1958 Geneva Conference,' JAG J. March-April 1960, pp. 3, 5.

9 "The Commission considers, however, that cases may occur in which special rights granted by one State to another given State may be fully justified by the special relatiqnship between the two States, and that in the absence of treaty provisions to the contrary, the grant of such rights cannot be invoked by other States as a ground for claiming similar treatment. The Commission prefers, therefore, that this question should continue to be governed by the general rules of law." Report of the International Law Commission covering the work of its eighth session, 23 April-4 July 1956, U.N. Gen. Ass. Off. Rec. 11th Sess., Supp. No.9 (A/3159), p. 20; II Yearbook of the International Law Commission 1956, pp. 253, 273-274.

10 "A proposal was made that the following clause be added . . .: 'The right of the Coastal State to demand and obtain information on the nationality, tonnage, destination and provenance of passing vessels in order to facilitate the levying

of charges is reserved.' The Commission was unwilling to insert in the article a clause which, if injudiciously applied, might seriously interfere with the passage of ships. But the Commission has no wish to dispute the fact that, in certain circumstances, the Coastal States may be entitled to ask for the above-mentioned information. Any unjustifiable interference with navigation must, however, be avoided." Report of the International Law Commission covering the work of its eighth session, 23 April-4 July 1956, U.N. Gen. Ass. Off. Rec. Ilth Sess., Supp. No.9 (A/3159), pp. 20-21; II Yearbook of the International Law Commission 1956, pp. 253, 274.

11 "The Coastal State may suspend temporarily and in definite areas of its territorial sea the exercise of the right of innocent passage on the ground that that is necessary for the maintenance of public order and security. In this case the coastal state is bound to give due publicity to the suspension." Report of the International Law Commission covering the work of its sixth session, 3 June-28 July 1954, U.N. Gen. Ass. Off. Rec. 9th Sess., Supp. No. 9 (A/2693), p. 18; II Yearbook of the International Law Commission 1954, pp. 140, 159.

12 "The Second Committee of the 1930 Codification Conference used the expression 'public order' in this context. The Commission prefers to avoid this expression, which is open to various interpretations.

*

"In exceptional cases a temporary suspension of the right of passage is permissible if compelling reasons connected with general security require it." Report of the International Law Commission covering the work of its eighth session, 23 April-4 July 1956, U.N. Gen. Ass. Off. Rec. Ilth Sess., Supp. No.9 (A/3159), pp. 19-20; II Yearbook of the International Law Commission 1956, pp. 253, 273.

13 "... Access to ports should, however, properly be considered a topic separate from innocent passage. The jurisdictional rights of a coastal state are different in the two cases, exercise of jurisdiction over ships entering or leaving ports being in many instances reasonable or even necessary, while such exercise over a vessel in innocent passage could not be justified." Jessup, "The International Law Commission's 1954 Report on the Regime of the Territorial Sea," 49 AmJ.Int'l L., 1955, pp. 221, 226.

This was the view expressed in the Comment to Article 14 of the Harvard Research Draft on Territorial Waters, 23 Am.J.Int'l L. Spec. Supp., 1929, p. 295, and was also the position taken by the United States and Great Britain at the 1930 Hague Codification Conference.

14 *Fisheries* Case (United Kingdom v. Norway), Judgment, December 18, 1951, LC.J. Reports 1951, p. 116.

15 Final Report by J. P. A. Francois, Special Rapporteur, Regime of the High Seas and Regime of the Territorial Sea, Doc. *A/CNA/97*, January 27, 1956; II Yearbook of the International Law Commission 1956, pp. I, 8-9.

16 See generally, Comment, "The Problems of Delimitations of Baselines for Outlying Archipelagos," 9 San Diego L. Rev., 1972, p. 733.

17 173 LNTS 213; 31 AJIL (Supp.), p. 1.

18 72 Br. & For. St. Paps., p. 1104.

19 I Westlake, International Law, 198, 201.

20 See generally, I Bruel, International Straits, 1947, pp. 19,35-37,45-46,200-205.

21 The 1956 draft of the International Law Commission read:

"There must be no suspension of the innocent passage of foreign ships through straits normally used for international navigation between two parts of the high seas" (Article 17, paragraph 4).

"It was explained in the Commission's Commentary that the work 'normally' was suggested by the decision of the International Court of Justice in *The Corfu Channel* Case." Report of the International Law Commission covering the work of its eighth session, 23 April-4 July 1956, U.N. Gen. Ass. Off. Rec. Ilth Sess., Supp. No.9 (A/3159), pp. 19-20; II Yearbook of the International Law Commission 1956, pp. 253, 273.

22 *The Corfu Channel* Case (United Kingdom v. Albania), Judgment (Merits), April 9, 1949, LC.T. Reports (949), pp. 4, 28-29.

23 U.N. Doc. A/CONF.l3/C.l/L.39; III U.N. Conference on the Law of the Sea, First Committee (Territorial Sea and Contiguous Zone), p. 220.

24 Captain Wilfred A. Hearn, USN, Special Assistant to the Judge Advocate General of the Navy, "The Law of the Sea- The 1958 Geneva Conference," JAG J. (March-April 1960), pp. 3, 5.

25 See footnote 21.

26 U.N. Doc. A/CONF.13/C.l/L.7l; III U.N. Conference on the Law of the Sea, First Committee (Territorial Sea and Contiguous Zone), p. 231.

Appendix H

Scope of the Activities of the Inter-Governmental Consultative Organization *

Laws and Regulations Applicable to Ships and Shipping

International standards applicable to shipping, including inspection and enforcement machinery, and administration pertaining thereto with relation to:

International Safety Convention, 1960
Safety of Navigation
Construction
Carriage of Dangerous Goods
Carriage of Grain
Carriage of Bulk Cargoes other than Grain
Life-saving Appliances
Communications: Radiotelegraphy and Radiotelephony
Administration of Ship Safety
International Regulations for the Prevention of Collisions at Sea
International Load Line Conventions
Facilitation of Maritime Travel and Transport
All Matters arising from the pollution of the Sea by Ships and measures associated therewith
Tonnage Measurements of Ships.

Safety of Navigation

Location, operation and maintenance of all electronic and radio aids both on shore and on board; international standards and specifications, operating procedures.

Location, operation and maintenance of all visual aids, lighthouses, buoys, markers installed for use by shipping. Any installations which although not installed specifically for use by shipping may affect the safety or efficiency of navigation.

Navigation in congested areas; traffic routing.

Obstacles and hazards to safe navigation.

Search and rescue-measures and organization.

New methods of navigation.

Charts and hydrography insofar as these relate to safe navigation.

Design of Ships

Initial design of ships (including fishing vessels according to agreements with FAO), determination of principal dimensions, weight estimation, power estimation, etc.

Structural design of ships (strength, stability and sub-division calculations, drawing of structural plans, etc.).

Design of machinery, electrical installations, equipment and accommodation spaces (including fire protection, detection and extinction).

Design, development and implementation of new techniques for remote control and automation on board ships.

Technical Aspects of Ship Construction

Construction of hull structures (block system of construction, etc.).

Workmanship (cutting, welding, riveting, assembling, etc.).

Launching.

Outfitting and joiner work.

Repair and remodelling.

Installation and testing of main auxiliary and deck machinery. Cargo and life-saving equipment, navigational aids, etc.

Production and quality control.

Special Ships and Offshore Craft

Construction, equipment and navigation of special types of craft, such as hover-

* Intergovernmental Maritime Consultative Organization, *IMCO* and *Technical* Co-Operation (undated), *pp. 5-8.*

craft, hydrofoils, drilling rigs, etc. Regulations for same. Suitability from technical viewpoint for safety of operation in given conditions.

Technology of new types of ship, such as container ships, nuclear ships, fully submerged ships, offshore loading barges, etc., and the safety and regulatory aspects thereof.

Carriage of Goods by Sea

Dangerous *Goods:*

Documentation
Packing, marking and labelling
Loading, stowage requirements and segregation measures
Safety measures during voyage
Container Traffic
Use of IMCO Code.

Grain:

Loading and stowage requirements for:
-bulk
-bags
Safety measures during voyage
Grain loading plans.

Bulk Cargoes other than Grain:

Ores and similar cargoes
Loading and stowage requirements
Safety measures during voyage
Use of IMCO Code.

Concentrates and Similar Materials:

Loading and stowage requirements
Safety measures during voyage
Sampling procedure
Test procedures
Use of IMCO Code.

Timber:

Stowage
Uprights and Lashings
Safety measures during voyage.

General Cargo:

All ship-board handling and stowage requirements.

Containers:

International safety provisions for containers carried in ships.

Administration of Ship Safety

Organization of administrative offices.

Application of rules and regulations, tonnage regulations, ship registration, etc., establishment of inspection and survey systems, etc.

Advice on the establishment of classification societies.

Ports

All questions of the safety of ships in ports and their approaches together with the services relating thereto. Efficiency and operation of ship-board equipment.

Pollution of the Sea by Ships

See above under "Laws and Regulations Applicable to Ships and Shipping" and, in addition:

Development of special procedures and installation of appropriate equipment in ships for the purpose of preventing pollution.

Establishment of port facilities for the reception of residues and oily mixtures.

Training

As pertinent, in all the above subjects (in accordance with agreements with ILO).

Facilitation

Simplification and standardization of documents relating to customs, health and immigration and all other internationally required documents for ships' clearance.

Appendix I

Extract from Statement by John R. Stevenson to Subcommittee III of U.N. Seabed Committee August 2. 1972

Permit me to make a quick review of what has been done in recent years on the international level to control and minimize pollution from vessels. It goes without saying that improvements in national standards of ship design and construction and improvements in regulation of vessels by flag States have helped to cope with the risks of vessel pollution, but I shall limit this review to international, rather than national, action:

First, the 1954 Convention for Prevention of Pollution of the Sea by Oil, as amended in 1962 and 1969, requires each Party to enforce against vessels of its registry standards limiting the maximum rate of discharge of oil from vessels in navigation.

Second, the 1969 Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties allows Coastal States to take emergency action under certain conditions against vessels on the high seas to prevent, mitigate, or eliminate a grave and imminent danger of oil pollution to their coastlines.

Third, the 1969 Convention on Civil Liability and the 1971 Brussels Convention on a Compensation Fund have established a system to compensate victims of oil pollution damage. This is accomplished by placing liability on the vessel owner in each case and establishing a fund to provide additional compensation to victims by means of contributions by oil cargo receivers.

Fourth, the 1971 so-called "important nature" amendments to the 1954 Convention established new regulations on ship design and construction affecting large tankers. For practical purposes these amendments have been applied since January 1972.

Finally, the Intergovernmental Maritime Consultative Organization (lMCO) is presently considering proposals to extend the principles of the Intervention Convention, the Civil Liability Convention, and the Compensation Fund Convention to pollution caused by certain substances other than oil and is preparing for an International Conference on Marine Pollution, scheduled for 1973, which is expected to (a) prohibit all intentional discharges of oil wastes which could pollute the seas; (b) take further steps to minimize accidental oil spills (including new regulations concerning vessel design and equipment, revisions in navigation rules, new schemes for traffic separation, and new procedures for oil transfers); and (c) expand controls to hazardous cargoes other than oil.

Permit me now to review in summary form what we believe to be the most important steps that remain to be taken.

First, the work that IMCO has in train should be strongly supported. Whatever criticisms one may hear of IMCO, it has been the forum in which the achievements I have just summarized have been realized. Building upon that past work and present planning it should be possible for all interested governments to use IMCO to push forward rapidly with these projects. In this connection, I would note that the Seabed Committee and the Law of the Sea Conference could usefully urge all those countries which have not adhered to or ratified the various IMCO Conventions to give serious consideration to adherence or ratification. I would particularly suggest this with respect to the 1969 Intervention Convention, the 1969 Civil Liability Convention, and the 1971 Compensation Fund Convention. The Committee and the Conference could also usefully endorse the expansion of

the liability and compensation concepts of these Conventions to cover other hazardous substances.

Second, we believe greater consideration should be given to Coastal State concerns and proposals. We would urge the Seabed Committee to urge IMCO to do this and to study specific regional or local vessel pollution problem areas. The Committee might also usefully recommend to IMCO the continuation and expansion of its training programs for the nationals of developing countries.

Third, we believe all new commercial tankers should be required to carry an International Tanker Construction (Pollution Prevention) Certificate. A proposal to this effect has been made by IMCO, and we urge that it be adopted and included in the convention to be concluded in 1973 on vessel pollution.

Fourth, port States should be required by international agreement to verify possession of an International Tanker Construction Certificate by all new commer*cial* tankers entering their ports and to refuse entry to any such tanker not possessing the certificate. IMCO has proposed requiring verification by port States, and we shall propose that refusal of entry be made mandatory for noncompliance, except, of course, in the case of *force majure*. Moreover, we believe port States should be authorized to go behind the certificate and inspect any such tanker entering its ports if there are reasonable grounds for believing that it is not actually in compliance with the construction standards. Should non-compliance be ascertained, the port State could then require necessary repairs or refuse port entry. We intend to make proposals to this effect in IMCO.

Fifth, all ships proceeding through areas to which international traffic separation schemes apply, as described by the representative of IMCO last week, should be required to respect them in accordance with the rules and procedures established by IMCO and the International Regulations for Preventing Collisions at Sea. We believe the Law of the Sea Conference should include this requirement in the treaty it produces and should also prescribe strict liability for all vessels for accidents caused by deviations from traffic separation schemes. We intend to discuss these ideas further in Subcommittee II, as well as in this Subcommittee.

Sixth, we believe the 1969 Intervention Convention should be expanded to apply to hazardous substances other than oil and that consideration should be given to expansion of the criteria governing instances in which States can act, including possibly a broadening of the concept of "maritime casualty." We intend to pursue these subjects in IMCO.

In view of these actions taken or in prospect, we believe the following conclusions with respect to pollution from vessels are sound and warrant support by this Subcommittee.

First, much useful action has already been taken to control pollution from vessels, but more needs to be done. We are all aware of the serious dangers presented by such pollution, particularly from the construction of larger tankers and the rapid increase in maritime commerce. To meet these dangers adequately requires our concerted efforts.

Second, IMCO should be urged to proceed with its work in this field as rapidly as possible and to give additional consideration to the needs of Coastal States.

Third, the Law of the Sea Conference should support and supplement IMCO and its work and should not try to replace it. The Committee and the Conference are the proper forums for the development of treaty articles establishing basic policies, but work which requires continuing technical expertise and involves detailed regulation is clearly inappropriate for the Law of the Sea Conference.