

# Some Thoughts on National Ocean Policy: The Critical Issue

DON WALSH\*

## INTRODUCTION

The question of whether or not the United States has an operative, deliberate national ocean policy is generating increasing concern among statesmen, scholars, and others concerned with our future role in the uses of ocean space. In short, does this nation conduct its ocean affairs with the same planning and deliberation as its foreign affairs? While many believe this nation has a perfectly adequate national ocean policy, it is the basic proposition of this Article that, in fact, this is not the case and what passes for national ocean policy is actually a rather uncoordinated grouping of special interests competing for finite resources and policy support, often at the expense of each other. It is a further proposition of this Article that in order for the United States to proceed in a logical and open-ended manner toward full uses of ocean space,

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\* Director of the Institute for Marine and Coastal Studies and Professor of Ocean Engineering at the University of Southern California. Background research on this subject was largely done while a Fellow of the Woodrow Wilson International Center for Scholars (1973-74). The author would like to thank Mr. Lawrence G. Mallon of the U.S.C. Sea Grant Program, for his helpful suggestions.

it will be necessary for some continuing framework of national ocean policy to be established at the highest levels of Government, in both the executive and legislative branches.

The operative term "national ocean policy" should be defined for the purposes of this essay as that activity which defines and governs the sum total of all national uses of the sea, and which determines how the United States will use the world ocean as an instrument of its own national policy. "Uses of the sea" means all uses of the ocean space which are designed to either provide economic or national security advantage to the United States. Also, the term "sea power" is used in this essay interchangeably with "uses of the sea." These uses include living and nonliving resources, marine transport, employment of naval forces, regulation and governance over territorial waters and economic zones, research, safety at sea, and marine recreation. The "catalog" is much more extensive; however, these examples illustrate the general categories that would fall under the rubric of "uses of the sea."

This critical issue of ocean policy is often overlooked by most students, scholars, and practitioners in marine studies who confuse the *component* parts of ocean policy represented by such areas as law of the sea, oceanography, naval affairs, etc., with the much broader framework which is the true national ocean policy. In other words, national ocean policy is presently more in the mind of the beholder than it is institutionalized. In addition, appearance may be confused with substance. Many agencies within the Government are adept at establishing initiatives for programs which at best can be characterized as "fair words and few deeds." The basic point is that national ocean policy is the requisite substrate upon which all of the interrelated national maritime activities must be constructed. This substrate does not presently exist, and thus the component parts cannot be exercised in effective, harmonious relationship with each other. The result is that United States ocean activities are considerably less effective than should be expected from the present allocation of resources to these activities. Furthermore, the lack of a master plan makes it extremely difficult to do coherent planning for future resource allocation to maximize United States ocean interests and to minimize scientific, technical and political surprises. Thus, it is imperative that persons involved in the component parts of the national ocean effort, whether it is science, technology or

law, must be concerned with how their activities should relate to the whole, even though the "whole" does not exist except in a weak, de facto sense. This essay is dedicated to providing the necessary overview on how national ocean policy should be defined, developed and managed.

In the first paragraph of this Article, the reference to "special interests" is meant to indicate those parts or elements of the national ocean program which are principally under coherent management within the federal government. Perhaps the best perspective on the present situation within the federal government can be given by quoting the introduction to a recent report by the General Accounting Office:

The United States has no comprehensive national ocean program. Federal marine science and other oceanic activities are conducted by 21 organizations in six departments and five agencies. Necessarily, many of the activities of these organizations are closely related. . . . [I]t is doubtful that the resources of the 11 departments and agencies are being applied to best serve national purposes.<sup>1</sup>

Table 1<sup>2</sup> provides a listing of these organizations whose missions (real or perceived) cause them to have some level of marine programs. It should be noted, however, that the first four organizations listed in Table 1 account for nearly 87 percent of the federal spending in this area.

Each of these ocean interest groups, either in concert with other specialized interests or alone, eventually attempts to influence their power structure at the highest possible levels of the executive (*i.e.*, the Office of Management and Budget) and the legislative branches of government through a variety of strategies and tactics. While each of these agencies believes they are managing their resources in the best possible way for the national interest, the fact remains that the national interest with respect to ocean space has not been articulated to provide a comprehensive and coherent plan of guidance. Thus, a recent workshop on ocean policy sponsored by the National Science Foundation noted:

The fragmentation of marine policy-making in the United States has placed grave difficulties on defining a set of national priorities that serve not only for national policy-making but also provide a unified negotiating position for any international negotiations—including, but not limited to, the Law of the Sea negotiations.<sup>3</sup>

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1. U.S. GENERAL ACCOUNTING OFFICE, THE NEED FOR NATIONAL OCEAN PROGRAM AND PLAN (GGD-75-97, Oct. 1975). It should be noted that the count is actually 27 different activities, ranging from cabinet level departments to individual offices within larger departments and agencies.

2. *Id.* at 34 (modified by author).

3. R. FRIEDHEIM & J. KILDOW, REPORT OF THE OCEAN POLICY WORKSHOP (Public Research Institute, Center for Naval Analyses, PRI 196-75, 1975).

Table 1

*Federal Government Organizations with  
Marine Science and Oceanic Affairs Activities*(Figures in parentheses indicate each organization's percentage  
of total U. S. expenditures in this area)

<i>Department of Commerce</i> (37%)	Maritime Administration (MARAD) National Oceanic and Atmospheric Administration (NOAA)
<i>Department of Transportation</i> (37%)	U. S. Coast Guard (USCG)
<i>Department of Defense</i> (12.5%)	Department of the Navy (Navy) Defense Mapping Agency (DMA) Defense Advanced Research Project Agency (ARPA) Army Corps of Engineers (COE)
<i>Department of Interior</i> (6%)	Fish and Wildlife Service National Park Service Geological Survey Bureau of Land Management Bureau of Mines Bureau of Outdoor Recreation Office of Saline Water Office of Water Resources Research Office of Territorial Affairs Bureau of Indian Affairs Bureau of Reclamation
<i>National Science Foundation</i> (NSF) (3%)	
<i>Environmental Protection Agency</i> (EPA) (1.5%)	
<i>Department of State</i> (State) (0.7%)	
<i>Department of Health, Education and Welfare</i> (HEW) (0.3%)	Federal Drug Administration (FDA) National Institutes of Health (NIH) Office of Education (OE)
<i>Energy Research and Development Administration</i> (ERDA, including the former AEC) (0.8%)	
<i>National Aeronautics and Space Administration</i> (NASA) (0.8%)	
<i>Smithsonian Institution</i> (0.2%)	

The method of expression of national interests in the world ocean and the interaction of these interests with national interest in other areas can become very complex and difficult to perceive as a set of clearcut issues. Table 2 expresses one way of looking at a matrix of national values, interests and issues which must be considered in the formulation of a coherent national ocean policy.

Table 2

*U. S. National Values, Interests and Issues in the Use of Ocean Space*

<i>National Values</i>	<i>Related Ocean Interests</i>	<i>Issues</i>
Well-Being (Security)	National Security Policies Operative National Ocean Policy	National Ocean Commitment Adequate Naval Forces Allocation of Funding
Influence (National Presence)	Marine Transportation Resource Exploitation Naval Forces Law of the Sea Negotiations	Rights of Use for Passage, Exploration and Exploitation Trade and Security Agreement
Respect (Nationalism)	Sea Power Operative National Ocean Policy	Better National Organization for Ocean Activities Development of National Ocean Policy
Wealth (Power)	Resource Exploitation Marine Capital Investment Marine Transportation	Resource Zone Defined Common Heritage Principle Scientific and Technology Transfer Marine Pollution
Knowledge (Science)	Marine Sciences Ocean Engineering Sciences Trained Manpower Information Exchange	Freedom of Scientific Research National Ocean Commitment International Scientific Cooperation
Skill (Technology)	Ocean Engineering Marine Engineering Trained Manpower	National Ocean Commitment Investment of Private Capital Marine Pollution
Rectitude (Distributive Justice)	Enlightened Self-Interest in Ocean Activities Enlightened Leadership in Law of the Sea	Maintenance of Pre-eminence as a Sea Power for World Stability
Kinship (Altruism)	Assistance Programs for Developing Coastal States	Scientific and Technology Transfer to Developing Coastal States Resource Sharing

The notion of national ocean policy certainly is not something that can be ascribed to a new "wave" in ocean studies as the next vogue following scholarly concerns about law of the sea, the energy problem, the world ocean for food, energy, and mineral resources.<sup>4</sup>

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4. Before the 1970's, most of the literature in this area dealt either with specific, limited issues (*i.e.*, sea-based deterrence, fisheries, etc.) or grand maritime strategy (*i.e.*, Mahan, Corbett, etc.). The problem is not so much in the lack of material as it is in knowing under what headings to look for it.

It is, in fact, a logical extension of man's evolving capabilities of the past 25 years to expand and exploit diverse activities on and in ocean space. Simply put, since World War II, the world ocean *itself* has become a place of intrinsic value rather than a two-dimensional medium for the projection of national power, commerce and other activities related to use of the air-sea interface alone.

In the evolution of naval warfare, the advent of deep diving, missile-armed nuclear submarines for both conventional attack roles, and nuclear deterrence have placed some of the most fearsome weapons of warfare well beneath the surface of the world ocean. Here, reliable detection and countermeasures seem quite implausible for the immediate future. In addition, explorers (in most cases supported by Navy research funds) have plumbed the depths of the deepest places in the world ocean, successfully demonstrating that the major, developed maritime nations have the *technological* and *scientific* capability to in fact go to any place in the breadth and depth of the world ocean.

Since World War II, the development of the offshore petroleum industry for gas and oil exploitation has produced the technological capability to produce increasingly great quantities of these vital resources from the floor of the ocean throughout the world. By 1980, it is estimated that 25-42 percent of the world's petroleum will be produced from undersea deposits.<sup>5</sup>

While petroleum from the seafloor receives most of the attention in considerations of nonliving ocean resources, in fact, there are several other promising mineral resources that have great economic potential. Among these are manganese and phosphorite nodules, sands and gravels, mineral rich muds, and sulphur. These resources can be extracted from on and beneath the seafloor in water depths ranging from a few hundred feet to over 18,000 feet. The manganese nodules represent an important source of manganese, copper, cobalt and nickel, while phosphorite nodules are an excellent potential source of phosphates for agricultural purposes. Even the prosaic sands and gravels will be increasingly valuable to the construction industry as onshore deposits become unavailable. The scientific knowledge and technology exist in most cases, and by 1980,

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5. For an excellent overview of the complex issues involved in offshore petroleum exploitation, see D.E. KASH, *ENERGY UNDER THE OCEANS* (1973).

these and other marine hard mineral extraction activities will become a major factor in ocean resource development.<sup>6</sup>

The convergence of scientific knowledge gained through accelerated ocean research programs, with an increasing application of sophisticated technology to the ocean environment has given the developed maritime nations—which probably number no more than 12—the capability to exploit and use the world ocean that is considerably more sophisticated than their ability to govern and regulate these activities in harmony with the world family of nations. Given that there are approximately 120<sup>7</sup> coastal States in the world today, with probably less than ten percent considered major maritime powers, there is no difficulty in appreciating the concern of the other 110 or so coastal nations which view themselves as being unable to participate in the increasing beneficial uses of ocean space. It is the stresses set up by this feeling of being left out of the last physical frontier on this planet that have activated so much of the ill will and the intransigent behavior of these States in law of the sea negotiations. Clearly, some means beyond the current proposals in law of the sea must be developed to assist developing nations in assuring self-interest in the exploitation of ocean space. The plans developed by the major maritime powers must also aim for the convergence of mutual interest between themselves and the developing coastal States. Any other scheme will prove both hazardous in the long run and unworkable for the interests of the maritime powers as well as the developing nations. Therefore, it is imperative for United States national policymakers to exercise some leadership with respect to development of a coherent and intelligent ocean policy for a total approach to uses of ocean space. If we cannot have domestic leadership, it is almost impossible to suppose that we can help guide the less developed nations in achieving the same interests.

The proposition of an overall national ocean policy is neither theoretical nor unworkable. Several of the major maritime states have already begun programs of varying success and complexity with respect to organizing their national approach to uses of the world ocean. For example, the Soviet Union has a highly orchestrated and coordinated program. It expresses their national interests

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6. A comprehensive review of offshore mining is given in MARINE BOARD, NATIONAL RESEARCH COUNCIL, MINING IN THE OUTER CONTINENTAL SHELF AND IN THE DEEP OCEAN (National Academy of Sciences, 1975).

7. Alexander, GEOGRAPHICAL FACTORS AND THE PATTERNS OF ALIGNMENT, in PERSPECTIVES ON OCEAN POLICY (National Science Foundation 75-17, 1975).

through organized operations of all elements of their uses of the sea from the distribution and activities of their naval forces to the ubiquitous conduct and appearance of their fishing fleets throughout the world.<sup>8</sup> The Soviet Union carefully programs its naval and maritime capabilities to export and represent its interests and ideologies.<sup>9</sup> This is not to say their execution is flawless. It has been noted at several international conferences that the Soviet delegations, reflective of their highly structured and rigid bureaucracy, have been found to lack the flexibility which *should be* inherent in a carefully conceived program of national maritime policy. Another good example is the government of Japan which through its Ministry of International Trade and Industry (MITI) has developed a very substantial working relationship between industry and the government in planning and developing national maritime interests.<sup>10</sup> Even though the Japanese have only a nominal naval force in their Maritime Self Defense Force, their capability to create a world-wide maritime presence through their merchant and fishing fleets, extensive sales of new construction ships, and marketing of offshore technology have demonstrated a coherent and well-oiled national program for uses of ocean space. Other major maritime nations such as France, England, and Canada have also demonstrated an ability to coherently program their maritime interests through coordinated government support of all elements that go into their national maritime activities. This is not the case in the United States.

While it would be interesting and useful to do an essay on the "comparative anatomy" of the various ocean policy processes in foreign nations, the intention here merely is to indicate that the notion of a national ocean policy is already a practice in some States. It would be hard to address the situation facing the United States

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8. For the general methodology of Soviet policy orchestration, see M. HARVEY, *SCIENCE AND TECHNOLOGY AS AN INSTRUMENT OF SOVIET POLICY* (Monographs in International Affairs, Center for Advanced International Studies, University of Miami, Fla., 1972).

9. A good overview of this subject is in M. MCGUIRE, *SOVIET NAVAL POLICY—OBJECTIVES AND CONSTRAINTS* (Praeger Special Studies in International Politics and Government, New York, 1975).

10. For an example of extensive coordination in one area, see JAPAN ENGINEERING COMMITTEE ON OCEAN RESOURCES, *STATUS REPORT OF SEA-BED EXPLORATION AND EXPLOITATION TECHNOLOGY IN JAPAN* (Tokyo, 1972).

without having some knowledge and cognizance of what is being done in other nations. The United States is *today* the preeminent maritime power in the free world, but this is a power point that we are passing through. There is a great deal that must be done to improve the management and application of United States national policies in representing its interests in and on the world ocean. Those who would suggest that the status quo is perfectly adequate for the intermediate term do not understand the unfavorable nature of the principal trends used to measure the viability of sea power in the case of the United States.

In order to put to rest the arguments that would favor the status quo, it is useful to cite some of the unfavorable trends to demonstrate that the present course of action for the United States can only lead to a situation of its being a second class maritime power—a situation hardly commensurate or supportive of the policies set forth by the Government in other areas of national representation on the international scene.

In naval forces, the United States is perilously close to being the second largest navy in the world, behind the Soviet Union, due to the sizable differential between their rate of construction of major warships and the rate of construction within the yards in the United States. While most naval experts agree that this is not true at this moment, the situation could easily change in balance within the next year or two. Of course, this is not just a numbers game; both quality and quantity are involved. The prestigious *Jane's Fighting Ships*,<sup>11</sup> for the last three years, has indicated with some alarm this precarious trend towards being in second place. The United States Navy, for example, has shrunk from over 1,000 ships in 1968 to about 480 today; the smallest fleet since 1939.

The United States, a nation which is intimately dependent on marine trade with the entire world for its own well-being and markets for its goods, in 1974 only carried six percent of its cargo exports in United States flag ships.<sup>12</sup> In 1960, the figure was 11 percent. Yet, most maritime experts agree that a healthy proportion of own flag ship carriage of trade should be in the order of 40 percent to 45 percent for a major maritime state. The ability to achieve this level, an order of ten times more than what is being done now, is virtually impossible, given the present rate of development of the United States merchant marine. This is not to say the United

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11. *JANE'S FIGHTING SHIPS 1974-1975*, at 73-78 (J. Moore ed. 1974).

12. *MARITIME ADMINISTRATION, DEPARTMENT OF COMMERCE, THE ANNUAL REPORT FOR FISCAL YEAR 1974*, at 90 (1975).

States is not capable of designing and building ships which rank with the most modern in the world. It merely means that the allocation of priorities is somewhat faulty in failing to maintain this strong bulwark of national maritime health.<sup>13</sup> Present trends suggest only a nominal United States merchant marine capability within ten to 15 years.

In ocean fisheries, the United States ranks sixth in the world; however, this figure is somewhat misleading since the actual figures of tonnages landed indicate that the relative size of the United States fisheries industry is only four percent of the total world tonnage of fish caught.<sup>14</sup> Most of the fisheries in the United States operate on a subsistence basis and probably cannot become solid business enterprises without considerable infusions of new capital and governmental attention directed towards enlightened support and regulation. This situation is not aided by the fact that United States coastal fisheries generally must compete against highly mechanized, foreign fleets in international waters paralleling our coastline. One would have to make the conclusion with respect to fisheries in the United States that it is not a nationally important business, politics and regional factions notwithstanding.

With most of the key sea power indices more or less pointed downward, the future growth of the United States' presence in the world oceans is not as rosy as the current, instantaneous situation might indicate. Since all of these trends are not turned around within days, months or even years, it is incumbent for national policy planners to picture an integration of these issues, these downward trends, and to comprehend what these trends are telling us. This is not an idle expression of national sovereignty, an international "machismo," but rather a very pragmatic requirement to ensure that the self-interests of the United States are represented throughout the 71 percent of our planet that is covered by the seas.

Within the current law of the sea negotiations, it is clear that

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13. In World War II, Henry J. Kaiser shipyard built a Liberty Ship in four days and 11 hours, a convincing demonstration of industrial know-how when policy, capital and resources were put behind an effort. See J. BUNKER, *LIBERTY SHIPS* (1972).

14. The United States fishing industry supplies about 2.7 million tons of the world catch of about 66 millions tons, or about four percent. U.N./FAO. *36 YEARBOOK OF FISHERIES STATISTICS* 12 (1973).

the United States, by almost any formula, will gain the largest piece of territory among the 151 nations in the world through the creation of the economic zone. This will be in the order of 2,222,000 square miles (nautical).<sup>15</sup> In addition, it is also clear that the major maritime powers will continue to employ their total national array of sea power elements to further their interests within the political world. The United States must be in a position to intelligently organize its response and to map out its strategy and tactics for maintaining presence and maritime capability throughout the world ocean to be the major sea power. The status quo of the present will not lead to this situation in the future.

#### HISTORICAL PERSPECTIVE—WHENCE WE CAME

For nearly two hundred years, the United States has had a foreign policy which has served as a deliberate expression of the will of the Government as to how the United States saw its interactive role with other nations of the world. The foreign policy of the United States is expressed through an annual planning and documentation process setting forth both the current foreign policy and subsidiary policies of this nation, together with an indication of how this policy has been carried out in the past, how it is being carried out at present and the plan for the future. In addition, it indicates the operative agencies and some idea of the budget to be allocated for this process. Few would argue that such a coherent planning process is unnecessary due to the wide variety and depth of commitments the United States has in its involvement with the rest of the world. Nevertheless, in a similar situation where there is continuing and expanding concern for the United States national role in the world ocean, there is no prospect of such a centralized and deliberate planning process. A review of governmental statements on the ocean policy-related issues indicates that there does not seem to be much official concern expressed about the lack of process in this area. The world's population lives only on the 29 percent of our planet that is not covered by the oceans; nevertheless, there is a set of specific ocean issues which require creation of a national ocean policy plan closely coordinated with our foreign policy, its development and conduct.

The de facto ocean policy of the United States over the past two hundred years has been a series of events which if plotted on a graph would resemble a sawtooth curve. That is, we have risen

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15. Alexander & Hodgson, *The Impact of the 200-Mile Economic Zone on the Law of the Sea*, 12 SAN DIEGO L. REV. 569, 574 (1975).

on occasions to considerable greatness in the exercise of our maritime interests only to fall back into situations of manifest disrepair once the crisis was over. Generally speaking, these crises took the form of war-like actions where the national degree of dependence on the oceans was suddenly impressed on American policy planners. Such a sawtooth progression is no longer satisfactory in the present complex world; there is insufficient time in the course of modern events to effectively organize maritime capabilities at the last minute when a world crisis develops. More than ever, preparedness must be maintained.

The history of maritime policy development in the United States through the 1950's is largely the history of the United States Navy. While there have been some significant exceptions, this is sufficiently correct to illustrate the point here. Within the executive branch, the maritime advice given to the President traditionally came from the Secretary of the Navy, a member of his cabinet, prior to passage of the National Security Act of 1947. In the establishment and organization of the United States Navy, the Congress created the post of Secretary of the Navy as a member of the President's cabinet in 1798, after approximately 24 years of experimenting with other various schemes of management of this organization through such bodies as an Admiralty Board, a Secretary of the Marine, Agent of Marine, etc., with the direction for this management often coming from Congress itself. They recognized finally in 1798 that the full management of the Navy properly belonged in the hands of the President for the day-to-day conduct of its activities.<sup>16</sup> The early concern with maritime affairs is found in the language of the Constitution (in force in 1789) which provides that the United States shall "provide and maintain a navy" but should only "raise and support armies," with no appropriation of money for the Army lasting for a term longer than two years.<sup>17</sup> The Navy did not provide a domestic threat to good order and was considered an important adjunct for extension of national interests beyond the shorelines of the nation. In "maintaining a Navy," it was the intent of the Congress that the Secretary of the Navy should

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16. For the historical development of naval (maritime) administration and policy in the United States, see C. PAULLIN, *PAULLIN'S HISTORY OF NAVAL ADMINISTRATION 1775-1911* (1968).

17. U.S. CONST. art. I, § 8.

be the principal sea power advisor to the President, as well as the administration's principal contact with the Congress with respect to naval matters. This was especially true after 1815.<sup>18</sup> But, the term "naval matters" had a very broad construction, and it was the intent of the Congress that the Secretary of the Navy should be concerned with most questions related to uses of the sea and the protection of United States interests upon the seas. The principal uses of the sea in the 19th century related to uses of naval units for the purposes of exploration, projection of United States interests abroad, territorial acquisition, and the development and protection of United States maritime trade. The major commercial maritime activities of significance at that time were the merchant, fishing and whaling fleets operating throughout the world. In the 1840's, Lieutenant M.F. Maury of the Navy became "the father of oceanography" through his world-acclaimed studies of ocean phenomena. These studies were tied to United States desires to improve the efficiency of its merchant, fishing and whaling fleets.<sup>19</sup>

Within the Congress itself, Naval Affairs Committees were established in both houses by the mid-1800's, and these bodies were able to look at the question of national uses of the sea in a unified manner. Thus, throughout almost the entire 19th century and the first five decades of the 20th century, naval affairs and maritime affairs were reasonably well represented at the highest policy levels of the Government as specific sets of topical questions. While this was not equivalent to having a national ocean policy, in that the principal business was naval, it did provide a unifying mechanism which essentially made most of the policy concerned with national uses of the ocean during those times.

In the immediate post World War II years, the structure for the management of our armed forces was changed to more nearly conform to the situation of having virtually three principal autonomous armed forces; the Army, the Navy and a proposed Air Force (to be formed from the Army Air Corps). The business of defense was becoming a much more complicated set of issues. Three separate military departments at the cabinet level would be unworkable from a managerial point of view and would tend to put an unequal balance on military issues within the membership of the President's cabinet. For these and many other reasons, the Department of Defense was created by the National Security Act of 1947. But this

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18. For examples of the 19th century use of the Navy in developing United States ocean policies, see E. ENGLE & A. LOTT, *AMERICA'S MARITIME HERITAGE* (1975).

19. *Id.* at 130-31.

act also had the effect of removing the President's sea power advisor, the Secretary of the Navy, from the cabinet, as he and the Secretary of War (Army) were replaced on the cabinet by the new Secretary of Defense. At the same time, the Naval Affairs Committees in both houses of the Congress were disestablished along with the Military Affairs Committees, which provided congressional oversight for the Army. New Armed Services Committees were established for congressional supervision of the three services. So, as a result of this act which was designed to improve management of defense, the executive and legislative branches of Government lost their only unified structure for the consideration of broad maritime issues, imperfect as it was.<sup>20</sup>

Up through the late 1950's, the United States Navy represented the major national activity in ocean issues. This was especially true in the support and conduct of ocean science and engineering through the Office of Naval Research (ONR) which was founded in 1946. In 1950, the National Science Foundation (NSF) was formed, and it began to take over some of the support of basic ocean sciences. This NSF responsibility was reflected in a gradual decrease of naval activities in this area in order to avoid overlap and duplication, as well as permitting the Navy to concentrate its support on more mission-oriented research support.

Since the 1950's, there have been fairly active efforts in perfecting interagency coordination in marine sciences and later in broader marine programs, both through executive and congressional initiatives.<sup>21</sup> The difference in these terms lies in the distinction between strict oceanography and a broader context of science, engineering and policy-related programs. This coordination began with a voluntary confederation through the Office of Naval Research which set up the Coordinating Committee on Oceanography (CCO) in 1956. Since the Navy controlled 70 percent of the national ocean budget through ONR and the Navy Hydrographic Office, the coordination among the remaining half dozen

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20. For an historical treatment of this transition period, see R. ALBION & R. CONNERY, *FORRESTAL AND THE NAVY* 250-86 (1968).

21. For a detailed, comprehensive account of these activities from the late 1950's to the early 1970's by a participant, see E. WENK, JR., *THE POLITICS OF THE OCEAN* (1972).

agencies with ocean interests was not too unwieldy at that time.<sup>22</sup> In 1957, the National Academy of Sciences formed its first standing committee for ocean issues, the National Academy of Sciences Committee on Oceanography (NASCO). The Academy had done two previous major studies on oceanography in 1927 and 1949, but it had not established a body for continuity and follow-up. In early 1959, NASCO released its report, "Oceanography 1960-1970," written in response to a 1957 request by ONR. This report became the basis for the first congressional hearings to be held on the subject. In March, 1959, the newly-formed Subcommittee on Oceanography of the House Merchant Marine and Fisheries Committee held its first hearings while the Senate Commerce Committee held hearings on the NASCO report. The Navy also released its 1958 study, Project TENOC (Ten Years of Oceanography) at this time.

These early activities rather accurately identified the reasons for greatly increased United States activity in *ocean sciences* and the need for some centralized, coordinated framework for the conduct of this activity. Public and governmental awareness was indeed stimulated by this burst of federal interest in the oceans; however, this was also the era of Sputnik (1957) and the formation of NASA (1958), two events which tended to have even higher visibility and priority for allocation of resources in the area of science and engineering. Nevertheless, these ocean events involving the National Academy of Sciences, Navy and Congress established a continuing concern for ocean issues within the Government that persists to this day. The level of activity in this area has varied greatly in the past 19 years since ONR's CCO, but the essential interest has always been there.

In the wake of these early activities, the President's Federal Council for Science and Technology (FCST) established a Subcommittee on Oceanography in mid-1959. The membership on this subcommittee was composed of representatives of the nine federal agencies having oceanographic activities. In 1960, this subcommittee became the Interagency Committee on Oceanography (ICO). While it reported to the FCST, it was largely functional only in an advisory and coordinating framework. It had no authority to require any of the member agencies to initiate, terminate or coordinate oceanography programs. Chaired by the Assistant Secre-

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22. These were the Coast Guard (Treasury Department), Maritime Administration (Commerce Department), Bureau of Commercial Fisheries (Interior Department), United States Coast and Geodetic Survey (Commerce Department), Smithsonian Institution, and the Atomic Energy Commission.

tary of the Navy for its entire existence, the ICO was nevertheless successful in getting a good focus on oceanographic activities supported by the federal government.<sup>23</sup> Given other forces which were in competition with oceanography at the time, the ICO was remarkably successful in bringing the first basic coordination and cooperation to the federal ocean science community.

Congressional discomfort with the executive branch was primarily based on their perception that the President was not moving fast enough to implement the recommendations of the NASCO report and did not share their sense of urgency to get going in oceanography. This was evidenced by the many bills introduced on this subject in the late 1950's and early 1960's. By the mid-1960's, there was a virtual blizzard of congressional activity in the form of hearings and proposed legislation. This was set against a general background of criticism of the administration's overall management and policy for all sciences. The advocacy for oceanography was part of the larger picture. The main criticism in the ocean area was the lack of coherent, coordinated management by the executive branch. No one was in charge who had both the responsibility and the authority. The problems had been identified, but there seemed to be no effort to organize for their solution within the federal government.

In 1965, landmark hearings were held to define how the federal ocean program should be structured and managed. It was the sense of the Congress that it would send to the President a bill that would get something done soon. The author testified at the hearings held by the House Subcommittee on Oceanography, pointing out that while the context of the ocean dialogue since the NASCO report had been largely related to oceanography, that in fact, both technology and ocean policy were equally important to a balanced national program. Science (*i.e.*, oceanography) was only knowledge about the ocean environment and its potential. Engineering showed us how to use that knowledge to do useful work in the oceans, while marine policy provided the political governance and policy direction for these activities.

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23. The ICO was also responsible for a considerable series of government reports on various aspects of the United States oceanographic activities ranging from deep submersibles to education of trained manpower.

As a result of intensive (and sometimes fiery) House and Senate cooperation, together with the affirmative action of President Johnson (despite vigorous objections from some of his staff), the Marine Resources and Engineering Development Act of 1966 was enacted in June, 1966.<sup>24</sup> This became the baseline legislation for national ocean issues which were to be the subject of additional congressional initiatives (amendments) in the years to follow.

The 1966 Act essentially recognized the basic, complex questions involved in how to best organize the United States ocean program. It established two bodies to deal with the issues. The first was the Commission on Marine Science, Engineering and Resources to develop the recommendations for the long-range management of the program. It was composed of persons outside the Government, appointed by the President to advise him and the Congress on the best overall national plan. The chairman of this group was Dr. Julius Stratton, President Emeritus of MIT, whose name became the unofficial reference to the Commission's final report: "The Stratton Report."<sup>25</sup>

The second body was an executive branch coordinating group, the National Council on Marine Resources and Engineering Development. This organization was to provide an improved interagency coordinating mechanism with both authority and responsibility to assist the President in managing the United States ocean program, as well as preparation of new legislative initiatives in this area for transmittal to the Congress. The Chairman of the Council was the Vice-President.

It should be remembered that the theme was still strongly that of "oceanography." The 1966 Act used the term "marine science" as the key concept despite the more broad title of the act. But by generous interpretation, one could say that the act provided a legal basis for a much more broad construction of the congressional mandate. The act also wisely took notice of the bureaucratic propensity to perpetuate itself by requiring the Commission to submit its final report within 18 months of the date of its formation and that it would expire 20 days later. The Council was to expire 120 days after the presentation of the Commission's final report. Nevertheless, bureaucracy triumphed and the act was amended four times in extending the life of the Commission to 24 months and the life of the Council from about 28 months to about 60 months.

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24. Marine Resources and Engineering Development Act, 33 U.S.C. § 1101 (1970).

25. COMMISSION ON MARINE SCIENCE, ENGINEERING AND RESOURCES, OUR NATION AND THE SEA: A PLAN FOR NATIONAL ACTION (1969).

The works of both the Stratton Commission and the Council were sufficiently broad to provide the basic framework of a national ocean program together with an implied national ocean policy. Unfortunately, the administration was slow in acting on the Stratton Report, which was released in January, 1969. It was not until 18 months later that any major action was taken on the Commission's recommendations. Also, the bold statements and recommendations provided by the Council's series of annual reports to the President and Congress did not inspire any particular great surge of administration activity in the development of an integrated national ocean program.

By the end of 1969, President Nixon had appointed a special President's Task Force on Oceanography which was to consider the administration response to the Commission recommendations and an increasing volume of congressional criticism. This group recommended the creation of a National Marine Agency that would report directly to the President for the purposes of coordinating the national ocean program. This was not as strong an institutional recommendation as the independent agency, the National Oceanic and Atmospheric Administration (NOAA), recommended by Stratton's report, but it was better than the status quo. It was a beginning.

In July, 1970, the administration made its move. A "dependent" civil ocean agency was created through a presidential reorganization plan.<sup>26</sup> The agency created was the National Oceanic and Atmospheric Administration (NOAA), the same title used by the Stratton Commission, but it was not independent in this case; it was under the Department of Commerce. But even at this juncture, the decision did not proceed as smoothly as expected, and there was a lively jurisdictional dispute between the Departments of Interior and Commerce as to which department would have NOAA. Today, five years later, there are still some bad memories and scars of this episode in both departments.

The Navy, Department of Interior, Coast Guard, NSF and the Army (Corps of Engineers) all gave up certain, mostly minor, programs to the new agency as the bulk (except Bureau of Commercial Fisheries from the Department of Interior) of its new activities

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26. Presidential Reorganization Plan No. 4, to establish the National Oceanic and Atmospheric Agency, July 9, 1970.

came from within the Department of Commerce itself.<sup>27</sup>

It should be added at this point that the National Academy of Sciences' NASCO evolved into an Ocean Affairs Board, an elevation in status, in the early 1970's, but its influence never quite equalled that of the NASCO of 1959. This was not due to its membership or management, but to the changed nature of "political oceanography." In addition, the National Academy of Engineering also created an advisory committee for ocean engineering in 1967. In the early 1970's, this committee was also elevated in status and changed to the Marine Board, an organization which has been responsible for many important analytical reports on engineering aspects of national ocean development. The Government as the principal "customer" of the two academies has had the advantage of (relatively) objective advice from the two academies with respect to ocean science and engineering, although the *specific* question of national ocean policy has not yet been addressed by either group.

On April 30, 1971, the Council on Marine Resources and Engineering Development was terminated, two months short of its statutory expiration. For approximately three months, there was no inter-agency coordinating group while the FCST and other agencies tried to work out a new setup. By the late summer of 1971, the FCST created the Interagency Committee on Marine Science and Engineering (ICMSE) to carry on this function; however, this new group seemed to be a faded copy of the old ICO. It was purely a cooperative, coordinating body, and although it did carry on the annual reports required by the 1966 Act, its efforts really have not had a very great impact. Today, ICMSE provides a forum for the representatives from the federal organizations with ocean programs to meet for discussion of their programs. In addition, they have been tasked to do various studies that are passed to them by the FCST and other agencies where there appears to be interagency interests involved. But without anyone in charge, the averaging process of accommodating each agency's concerns and interest creates more intellectual oatmeal than caviar.

A second significant Stratton Commission organizational recommendation, other than NOAA, was a presidentially-appointed advisory council to review national ocean programs and to report annually to the President and Congress. The President did not act on this recommendation (as was the case with most of the other recommendations), and it was up to the Congress to create this body

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27. Transfers to Secretary of Commerce, *id.*, section 1; Abolition, *id.*, section 6.

through legislation. The bill creating the National Advisory Committee on Oceans and Atmosphere (NACOA) was signed into law on August 15, 1971.<sup>28</sup> The membership of the NACOA is made up from prominent citizens from the nongovernment community representing diverse relationships to the national ocean interests. The 25-member body, among others, consists of academics, industrialists, union leaders, state political leaders and information media executives. The NACOA has done well in its four years of existence, considering its broad membership and its innate advisory role. The annual reports of NACOA, while not as hard-hitting as some "ocean activists" would like, have been models of trenchant observation and comment on important topical areas relating to United States ocean interests. The real proof seems to lie with the gradual trend, indicating that the influence of NACOA, through its reports to the President and Congress, has continued to increase year by year. It is the kind of evolutionary growth that may result in NACOA's establishing an important and impartial (relatively speaking) presence in advising the executive and legislative branches of Government on ocean affairs.

There is a wide scope of activity represented by those agencies which share the \$2,064,200,000 a year federal appropriation for ocean sciences and marine affairs.<sup>29</sup> While this figure does not uniquely define *all* national activities in the ocean (for example, it omits cost of Navy ships, their development and operational costs), it does provide a good index for measurement of diversity in the allocation of resources for our national interest in the world ocean. There is a partial coordination mechanism (ICMSE) to provide inter-agency planning prior to entering the budget process in support of funding requirements for marine programs. The *effectiveness* and breadth of this coordination is, of course, another question.

It is suggested that two key events have accentuated the inherently weak position of the United States ocean policy apparatus. The first was the loss of the President's sea power advisor and related congressional committees as a result of the National Security Act of 1947. The second was the increasing, worldwide, scientific, technical and economic capability to achieve more extensive uses

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28. National Advisory Committee on Oceans and Atmosphere, 33 U.S.C. § 857-6 (Supp. I, 1971).

29. U.S. GENERAL ACCOUNTING OFFICE, *supra* note 1, at 34.

of ocean space. These events combined to provide an increasingly difficult situation where the lack of an overall ocean policy "road map" for orderly planning and programming becomes a chronic, severe problem in the dynamic maritime environment of today.

Today the diffuse situation in the management of ocean issues in the United States is demonstrated by the fact that *all* major maritime functions in the executive branch are initiated and conducted at levels below the cabinet level. In the case of the Congress, oversight and appropriations responsibilities are spread among many committees. Table 3 illustrates this problem which is reflective of the "division of labor" within the executive branch. In this situation, lack of coordination and focus on the overall general set of issues is a logical expectation.

*Table 3*

*Congressional Committees Regularly Involved in Marine Issues\**

*Senate*

<i>Committee</i>	<i>Subcommittee(s)</i>
Appropriations	(various)
Armed Services	(various)
Commerce	Merchant Marine Oceans and Atmosphere
Foreign Relations	Oceans and International Environment
Interior and Insular Affairs	Mineral, Materials and Fuels
Labor and Public Welfare	National Science Foundation
Public Works	(various)

*House*

Appropriations	(various)
Armed Services	Sea Power
Government Operations	(various)
Interstate and Foreign Commerce	(various)
Judiciary	(various)
Merchant Marine and Fisheries	Coast Guard and Navigation Fisheries and Wildlife Conserva- tion and the Environment Merchant Marine Oceanography
Science and Astronautics	(various)

\* There are, of course, other committees which take up ocean issues on an *ad hoc* basis. The intention here is to simply illustrate the diversity of paths these issues face on a regular basis within the legislative branch.

Source: *Congressional Directory*, GPO

Under the existing federal institutional framework, the prospects for a coherent national ocean policy are extremely dim. There is simply no way at present in which effective, continuous coordination and programming can be accomplished with advice and counsel being provided to the President and Congress on a regular basis. A new framework must be established to accomplish this purpose. A simple agreement to the proposition that a national ocean policy should exist and should be made operative is an insufficient condition to ensure that it can be effectively carried out under the present organizational framework. The framework itself must undergo some changes.

#### WHY A NATIONAL OCEAN POLICY

A rough outline of the reasons for a national ocean policy has been developed throughout this essay. However, a more detailed look should be taken at the specific conditions which require such a policy to be developed by the Government at the soonest possible time before considering how it might be accomplished. These conditions roughly fall into four categories; economic, political, ideological, and military. Each of these elements or combinations of them tend to form the basis for the increasing difficulty being faced by the United States. As noted earlier, there are some 120 coastal States in the world, a figure that is bound to increase: no more than a dozen are developed maritime powers.

Thus, we see that approximately 72 percent of the separate nation states in existence today are developing coastal States and that they clearly are in the majority voting representation in the various international forums.

The economic issue is perhaps the most realistic basis for appreciating the diverse international pressures for uses of ocean space. The oceans are regarded by the great majority of the world's nations as the last free resource area left on this planet. They are a source of both living and nonliving resources which are perceived to be vital to the effective development of the third and fourth world nations, despite the fact that in recent years there have been serious doubts raised by ocean economic analysts. These doubts are concerned with whether or not such resource probabilities do, in fact, exist in the order and scale considered necessary to alleviate the misery and underdeveloped situation of the majority of the

world's population. Nevertheless, as with many other areas of international diplomacy, the perception of real relief for economic hardship is more than sufficient to create a whole host of problems for ocean policymakers in the many decades to come.

Beyond the simple intrinsic value of the world ocean as a source of resources, there is also the use of the oceans as a highway for the conduct of world trade. With the advancement of third and fourth world nations, their increasing sophistication and economic well-being forces the demand for creating expanded world maritime trade. At present nearly 99 percent of all world trade is carried in ships at some point in the journey between manufacturer and the final marketplace. This fraction will remain constant as the overall volume of world trade increases dramatically in order to meet the demands of the developing world, as well as to supply the vitally needed resources and markets for the developed nations.

The political/ideological questions that will influence future decisions for ocean space are largely governed by the expressed desires of the developing world to have a fair share (by their definition) of the existing and future wealth of the world on an accelerated basis. The articulation of these desires will be realized through both existing and new world political alignments conditioned by a mutuality of interests among nations affiliated for geographic, cultural, political, or ideological reasons. These groupings will constitute physical and voting forces which will to a large extent condition or moderate future uses of ocean space on a regional rather than a world basis. It seems unlikely that any such grouping or coalition will have significant power over *total* ocean space, but rather they will provide certain problems that must be met and dealt with in localized areas, primarily coastal in nature. They will also provide opportunities to extend major power (U.S.S.R., China, United States, etc.) ideological conflicts into new modes of alignments.

The power of such groupings in world forums has been dramatically demonstrated within the past two years in the block voting of the developing world in the United Nations in passing resolutions which were often inimicable to the best interests of the United States. It is certain that such activities will increase with respect to ocean space through the current law of the sea negotiations. To view such situations in an equitable manner, fair to both the United States and the interest of these blocks, the United States must have a well-formulated policy of response and counteraction. While it is doubtful that the developing world coalitions can exercise significant power in other resource areas similar to the Middle Eastern

oil monopoly, it will be a continuing concern of both our foreign policy and hopefully our emergent ocean policy to look at the question of resource politics and their influence on our national and ocean interests.

Perhaps the most immediate question faced by United States ocean policymakers in the nearer term is the claim for increased control over ocean space by the developing coastal States. It should be kept in mind that there is nothing particularly sacred about a 200-mile or any spatial claim.<sup>30</sup> Claims considerably exceeding this almost undoubtedly will be a feature of future ocean politics. Since such claims, through creeping jurisdiction, are based on arbitrary political decisions more than on a resource or geographic basis, it is clear that holding the line on a 200-mile limit provides no real future guarantees. For the near term, whether or not there is a comprehensive law of the sea treaty produced at the current law of the sea negotiations, the *real* challenges facing our policy planners with respect to ocean space will remain about the same. In both cases, a treaty or "nontreaty," there will be sweeping changes in the existing political geography of the world ocean. Almost every one of these changes will operate to the detriment of the United States and its traditional world uses of the ocean space. The principal exception will be our acquisition of the immense economic zone off our coastlines. So while the situation is not entirely negative with respect to United States interests, it will provide an entirely new framework of how we exercise our maritime interests throughout the world.

The military question for ocean space is, of course, tied closely to the two foregoing issues of economic and political/ideological questions. The present roles of the Navy fall into four categories; strategic nuclear deterrence, sea control, projection of national power, and naval presence.<sup>31</sup> While these roles of the Navy will essentially remain the same in broad characterization, it is recognized that the changes in the political character of the world ocean will require a rebalancing of effort within these traditional roles.

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30. For an excellent case study on one such arbitrary but historical limit, see S. SWARTZTRAUBER, *THE THREE MILE LIMIT OF TERRITORIAL SEAS* (1972).

31. A complete discussion and analysis of the missions of the Navy is given in Turner, *Missions of the U.S. Navy*, 26 *NAVAL WAR COLLEGE REV.* 2-17 (1974).

The mission of the United States Navy as the principal United States military force concerned with the world ocean will become more complex. This complexity will come principally through use denial of large areas of ocean space which will come under the real or claimed jurisdiction of foreign coastal States. For example, one of the key issues facing the United States in the law of the sea conferences is the maintenance of the principle of unobstructed transit through world straits. This principle is particularly vital for the effective operation of naval forces. The United States cannot subscribe to a situation where it would have to ask permission from the adjacent coastal State(s) in order to send our naval vessels through straits that have been used traditionally for hundreds of years for this purpose. In addition, United States military planners must consider how to protect an increasingly diverse pattern of United States interests and activities on and in the world ocean. The stress and confrontation between the United States and the Soviet Union will certainly continue to be a major problem in the future. However, there is also the greatly expanded prospect for low-level naval conflicts in the distant coastal regions where developing States press for claims and demands that cannot be accommodated by our Government. These situations can result in exercise of military force on a limited and quick reaction basis to protect legitimate United States interests in these areas. The difficulty of doing this will be aggravated by reduction of both available foreign bases and the gradual enclosure movement of ocean space through creeping jurisdiction. This will require considerable recasting of the traditional roles of the Navy in supporting different operational patterns of United States maritime interests. Such a recasting has far-reaching implications in terms of resource allocation for assuring the appropriate shape and size of the Navy of the future.

As a related issue, the maritime police function which is conducted by the United States Coast Guard also will be required to undergo considerable changes.<sup>32</sup> With the 200-mile expanded resource zone almost a certainty, together with increased utilization of the coastal zone by all types of resource exploitation activities, this agency will be faced with dramatically increased responsibilities in the regulation, governance and policing of both United States and foreign activities within this zone. This is an ocean policy issue since the Coast Guard, as presently constituted, will need consider-

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32. For a detailed review by the Commandant of the Coast Guard of present and projected USCG missions, see Siler, *The Coast Guard—A Variety of Tasks, New and Old, for the Multi-Mission Service*, SEA POWER MAGAZINE, Jan., 1975, at 17-22.

able added assets and resources to adequately face these problems of the near future. The Coast Guard will be tasked with the principal role of the policing and regulatory functions in the coastal and resource zones surrounding the United States and its possessions. There are many activities conducted today in this region which do not directly involve the Coast Guard, but many experts believe that there will be a gradual assignment to this agency of virtually the entire regulatory responsibility for this region. This is a several hundred million dollar question for resources that ultimately will be required by the Coast Guard to meet the challenges of the future.

#### HOW NATIONAL OCEAN POLICY SHOULD BE FORMULATED: CONCEPTS AND OPTIONS

There are two primary goals to be met in the development of a proper management framework for the development and conduct of national ocean policy. The first is to provide continuous, evaluated policy information and recommendations to the highest levels of the executive and legislative branches of Government. The second is to unify and harmonize the various mission-related activities of the many federal organizations which have marine science and ocean affairs programs.

In the first case, the requirement is to ensure that some single entity is continuously assessing *ocean-related* aspects of all major national and international activities which might affect the United States and its overall national policy objectives. This implies certain assigned levels of responsibility and authority.

In the second case, the intention is to bring together and to focus the collective energies of the many agencies working in this area in order to avoid duplication and waste, through more wisely managing the people and capital resources allocated for these purposes.

There are many institutional ways of achieving the goals cited above. At one end of the scale might be the superagency, "wet NASA" concept, proposed in the mid-1960's by several congressional leaders.<sup>33</sup> At the other end would be the simple continuation of the status quo with nothing more than a slight improvement in the existing consultative arrangements for coordination of the Fed-

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33. Notably by Congressman Bob Wilson of California (San Diego).

eral Ocean Program<sup>34</sup> as outlined earlier in this paper. These extremes might be collectively entitled "from doing too much to doing too little."

In fact, there are some reasonable new schemes which could readily accommodate the contemporary needs of the United States government, meeting most of the requirements for the formulation of a coherent and cohesive national ocean policy. Most of them would require little in the way of a radical change in existing management, but they would require a presidential level commitment. By the very nature of the federal bureaucratic process it seems very unlikely that developing an administrative framework for these purposes could take place as one giant, bureaucratic step. Thus, it is considered a remote possibility that the United States will have a cabinet level maritime department (i.e., "Ministry of the Marine") in the near future, although some students of this question have made this suggestion.<sup>35</sup> Also, it is very doubtful that the Navy would be included due to its close integration in the Department of Defense. Such a specialized departmental organization may be possible in the future through an evolutionary progression of events which will take place over a period of several years, through the gradual development and integration of the national marine programs within the United States. One only has to look at the past history of attempts to make changes in federal cabinet level departments to appreciate the difficulties of bringing a new cabinet level position into being without a transition through more modest administrative changes that are wholly within the enacting power of the chief executive.

It is believed that the best immediate solution is an independent federal agency/administration reporting directly to the President.<sup>36</sup>

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34. The Federal Council for Science and Technology, through the Inter-agency Committee for Marine Science and Engineering, is required in accordance with 33 U.S.C. § 1104 (1970) to make an *annual* report on the Federal Ocean Program to the President and Congress. The latest report in that series was issued in December, 1975.

35. See Miller, *To Provide for the Common Defenses*, SEA POWER MAGAZINE, July, 1975, at 12-17; Walsh & George, *Do We Need a Secretary of the Coast Guard?*, *id.*, March, 1975, at 21-24.

36. This idea has come closer to fruition than any other proposal. Recent high-level recommendations have been: 1) the Stratton Commission recommended a "National Oceanic and Atmospheric Agency" reporting directly to the President (1969); 2) the President's Task Force on Oceanography recommended a "National Marine Agency" reporting directly to the President (1970); 3) NACOA's Second and Third Annual Reports (1973 and 1974) called for all civil marine functions to be put together in a single agency or department. They also specified that "the development of a national marine affairs plan" should be part of this new organization. All proposals were sufficiently broad in scope to accommodate the authority and competence to do the national ocean policy function discussed herein.

By the expediency of executive orders, together with the concurrence of Congress, the President could almost immediately create a suitable institutional framework to serve the purpose of the development and maintenance of national ocean policy. For example, an administration, designed similar to the National Aeronautics and Space Administration, might provide the most useful initial step in developing the required administrative structure. It is further proposed that the United States Coast Guard, which is the only civil federal maritime operating agency, be the initial core unit of this new administration.

This proposition would have two principal, immediate benefits to the United States. First, it would recognize the special and increasing responsibilities of the Coast Guard for regulation and jurisdiction over widely diversified maritime activities in the United States coastal zone.<sup>37</sup> Second, by removing the Coast Guard from any one of the cabinet departments, the situation of potential conflicts between the aims of the department in which the Coast Guard was located and the Coast Guard's responsibilities could be largely mitigated. The Coast Guard in an independent agency position could participate more directly and effectively in the development of all policies and regulations affecting United States marine activities. Such functions could easily be expanded to eventually embrace the world-wide needs of United States national ocean policy. It also should not be forgotten that the Coast Guard presently does have some world-wide responsibilities in its regulation over United States flag vessels and in the maintenance and operation of some distant navigational aids such as Loran stations.

This proposal makes logical sense for an ultimate, evolutionary development of an independent government agency that would be directly involved in the formulation and conduct of national ocean policy. At a later date, as appropriate, other maritime-related activities within the federal government would be added to the independent agency by executive order to provide additional dimensions and integration with respect to the management of national maritime activities.

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37. See Siler, *The Coast Guard—A Variety of Tasks, New and Old, for the Multi-Mission Service*, SEA POWER MAGAZINE, Jan., 1975, at 18; Walsh & George, *supra* note 35, at 23-24.

This suggestion is not the same thing as the development of a monolithic, ocean superagency. Many federal organizations have legitimate, mission-oriented needs to conduct ocean programs at various levels of activity. The criticism of the present systems lies with the fact that there is no final arbiter or policy-making agent that has authority for the adjudication and final resolution of policy matters. No one is in charge. For this reason, the present coordinating framework is rather loose and is largely ineffective for assuring maximum coordination and cooperation in the best interest of the United States.<sup>38</sup> In addition, the present levels of inter-agency coordination do not involve *all* aspects of national maritime activities, as the emphasis is primarily on ocean science and technology. Therefore, the proposal to better focus national activities and to provide a final arbiter in this area should not be confused with a suggestion that a single, omnipotent agency is needed for these purposes. Generally speaking, the monolithic agency is an administrative *extremis*, having much more to recommend against it than for it.

In fact, the term "wet NASA" is not even a very convincing analog for the conceptual notion of a monolithic ocean agency. In the case of the space program, the capacity and capability for doing work in space was principally located within two federal organizations, the Department of Defense and NASA. Thus, the resolution of conflict and competition which did exist needed only to be resolved between two government agencies (and, in fact, not without considerable early difficulty). Furthermore, the space program and the requisite scientific and technical capability to do work in space was a recently new phenomenon with no burden of the past. In the case of national ocean activities we find a historical multi-activity tradition going back over 200 years. The difficulties of retrofitting a suitable administrative framework to ongoing activities of such long-standing status is a very difficult bureaucratic dilemma.

The suggestion to create an independent agency with the Coast Guard as its initial element is by no means the only reasonable solution to the problem. A very modest means to provide continuing, evaluated information to the chief executive would be simply through the establishment of a presidential staff office similar to that of the former presidential science advisors or his foreign policy advisor. In this case, the principal person would be the "presidential ocean advisor."

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38. U.S. GENERAL ACCOUNTING OFFICE, *supra* note 1, at 32-33.

There are also several, less effective variations on how advice can be provided to the President. A national advisory council could be created to recommend and to frame national ocean policies for implementation by the executive and legislative branches where required. This probably should be an explicit assignment that could be added to the existing National Advisory Committee on the Oceans and Atmosphere. Another solution might be to develop a strong national ocean policy function within the staff of the Department of State which would focus the necessary expertise from the scientific, technical and the diplomatic areas to serve within the Department in the same way the nation's foreign policy is created. The Department of State actually recognized the specific importance of ocean issues in 1966 when the post of Special Assistant to the Secretary of State for Fisheries and Wildlife was established. In 1970, this was expanded into the Coordinator of Ocean Affairs and Special Assistant to the Secretary. In 1974, the function was elevated to assistant secretary status with the creation of the Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs. In the more limited law of the sea area, the Department of State has also had special assistants for ocean law located within the Office of the Legal Advisor. But, format and function are two different things; so far, the Department of State's experiment with an assistant secretary for this area has not functioned very well. One prominent ocean scientist-statesman turned down the nomination after he had been in consideration for some time, and the first incumbent, Dr. Dixie Lee Ray (former head of the AEC), resigned after a short time on the job, protesting that the position really had no influence within State or the Government.

Any one of these suggestions would certainly be a vast improvement over the situation of today where there is nobody specifically charged with this responsibility. However, it is clear that administrative panaceas are easy to invent—even those which are perfectly feasible and sensible. The trick is to obtain the concomitant dedication of good faith and policy support from the highest levels of the executive and legislative branches. Whatever the institutional solution proposed for ocean policy development and maintenance, it will be an interdependent framework depending upon firm, high-level commitment to its viability and effectiveness. If

such commitment is not given and maintained, then the new policy apparatus will be nothing more than another bureaucratic layer in an already crowded bureaucratic environment.

To those who have studied marine activities and "psuedo-ocean policy decisions" of the United States government through the past decade or two, there are many examples that could be cited where the failure to have a national ocean policy has been detrimental to effective conduct of our maritime interests in ocean space. Two examples are presented here by way of supporting this statement. The first is the rather amorphous history of positions taken by the United States in the law of the sea negotiations since the first United Nations Law of the Sea Conferences in 1958 and 1960. Because there was no specified agency within the federal government charged with the maintenance of policy continuity and development of consistent national ocean policy, the formulation of positions for the law of the sea negotiations tended to follow politics as driven by the more powerful departments of the executive branch. In the 1960's, the Department of Defense initially was very powerful and insured that its views carried the day through the pure force and determination of its negotiators and bargaining teams. Later, other departmental agencies were to pick up the mantle of power, and many of the Department of Defense's cherished aspirations were moderated as new power combinations gained the upper hand in the various stages of the negotiations. The Department of State, which technically had a primary responsibility for establishing leadership for United States national policy, in fact, was frequently relegated to the position of an observer directing traffic between the various competing factions within the Departments of Defense, Commerce, Interior and Treasury. The result of this internal power struggle was that the outward appearance of United States policy for conduct of its law of the sea activities took on many faces over the period of 15 years. It must be said that many of these changes were not in response to changing negotiating strategies on part of other world nations as much as they were in response to unrelated internal pressures within the United States government itself.

The second example of problems caused by lack of ocean policy is in the development of offshore or deepwater ports. It has been clear for many years that the only way real savings could be achieved in the production and distribution of petroleum was through reduction of shipping costs. Larger ships mean larger economies in transport. Nevertheless, the United States got itself into the position of not being able to enjoy these economies in the

delivery of petroleum imports to this nation. There is still no port in the United States capable of handling a supertanker of over 150,000 tons deadweight, and yet the world tanker fleet today consists of over 500 vessels of 200,000 tons or greater.<sup>39</sup> It has been estimated (1972) that exclusive use of supertankers by the United States for petroleum imports can save between \$430-\$525 million per year by 1980.<sup>40</sup> The development of suitable deepwater port facilities to handle these giant carriers involves a planning and construction process that requires perhaps up to a decade before such a facility comes on line. But since there was no central planning organization concerned with the comprehensive development of our maritime policies, there was no one with sufficient authority to be seriously concerned about the question of deepwater ports and their overall relationship to our energy intensive economy.

The advent of increased concerns about the environmental problems involved in the establishment of such ports and increasing pressures on land use planning in the coastal zones throughout the United States have greatly, but properly, added to the difficulties today of initiating and developing deepwater port complexes. These complexities only serve to provide a stronger reinforcement for the principal argument that a national ocean policy planning mechanism is required to integrate all of the competing interests in the best interests of the nation as a whole. The existing management structures are incapable of doing this with any reasonable degree of efficiency.

The preceding examples are certainly not exclusive of other "case studies" where policy failures have made the things either difficult or impossible, and certainly costly in maritime development areas. Many honest scholars undoubtedly could dispute the notion that such deficiencies as cited above do, in fact, exist or that the reason for poor performance is due to lack of policy. This in no way changes the basic premise that without a coordinated policy mechanism such complex questions as law of the sea, offshore ports, development of a national merchant marine, coastal zone management,

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39. Hood, *Bigger, Bigger . . . Bigger*, in *THE MILLION TON CARRIER* (Proceedings of the Super Ocean Carrier Conference (SOCCO), San Pedro, Cal. 1974), at 6.

40. Lougee, *Superport Development from the Federal Perspective*, in *THE MILLION TON CARRIER*, *supra* note 39, at 688.

etc., are infinitely more difficult than they would be under a more centralized and continuing framework.

At present, there is a major activity within the Congress (Senate) that may have a decided impact on the question of national ocean policy. In December, 1973, Senators Magnuson and Hollings unveiled their proposed Senate resolution for a national ocean policy study (NOPS) to be conducted by the Senate. On February 19, 1974, Senate Resolution 222 was passed having been sponsored by 52 senators. It authorized the Senate Commerce Committee to undertake a "National Ocean Policy Study" through an analysis of existing ocean policy processes and the ocean programs of the federal government. The stated purposes of this study were

- (1) determining current and prospective national capabilities in the oceans, including marine sciences and their application, oceanic research, advancement of oceanic enterprise and marine technology interdisciplinary education, policy planning, professional career and employment needs, and overall requirements of the United States consistent with the attainment of long-range national goals;

- (2) determining the adequacy of current Federal programs relating to the oceans and recommending improvements in agency structure and effectiveness to meet national needs and achieve oceans capabilities, and assessing existing policies and laws affecting the oceans for the purpose of determining what changes might be necessary to assure a strong and internationally competitive oceans policy and program for the United States;

- (3) establishing policies to achieve the goal of full utilization and conservation of living resources of the oceans and recommending solutions to problems in marine fisheries and their management, rehabilitation of United States fisheries, current and future international negotiations on fisheries, as well as aquaculture and the extraction of drugs from the sea;

- (4) assessing the needs for new policies for the development and utilization of the nonliving resources of the oceans, including the mineral resources of the Outer Continental Shelf and the deep seabed so that the national mineral needs can be met in an economically and environmentally sound manner;

- (5) encouraging implementation of coastal zone management through the Coastal Zone Management Act of 1972 by assessing regional and interstate problems, State functions and powers in coastal zone management, information sources, recreation needs, pollution problems, population trends, and future pressures in the coastal zone;

- (6) establishing comprehensive national policy for the purpose of understanding and protecting the global ocean environment through education, exploration, research, and international cooperation; and

- (7) making an assessment of proposals for, and current negotiations with respect to, achieving adequate national and international jurisdiction over the oceans, developing an understanding of the relationship of the oceans to world order, and examining United States policy with respect thereto.

The strategy of the overall study has been to develop concentrated studies of the component issues related to national ocean policy. To date, approximately 12 studies have been completed under the NOPS framework. While there has been some criticism of the modest staffing and funding support of this effort, it has been successful in utilizing the more extensive research resources of the Library of Congress, the General Accounting Office and the congressional Office of Technology Assessment. Another criticism lies with the fact that the study is a Senate effort rather than a joint effort of both houses. Ultimately, we will know if this criticism is valid when legislation generated as a result of the study is passed from the Senate to the House for action. Despite the criticisms, this is the only ongoing effort in the government which is looking at the question with the necessary depth and detail required to bring forth a balanced program for the future. Since the United States has gone nearly 200 years without a national ocean policy, a few more months for this study to demonstrate significant progress seems like a reasonable amount of time.

It was not the intention of this essay to provide *fixed* solutions to the generally recognized problems of the development of national ocean policy. It was the intention to stimulate thought and perhaps initiate dialogue which can help the policy planners of the United States to acquire a broader and more comprehensive view of their responsibilities. The 71 percent of our planet that is covered by water must become the object of serious study and consideration in the future policy planning processes of the United States; if the present trends continue we will be indeed a second-rate sea power. This is not affordable in today's world.