


UNDERSTANDING THE PAST TO SHAPE A NEW NATIONAL OCEAN POLICY



The phrase national ocean policy encompasses a vast array of issues, each of which requires policy makers to answer some key questions. What is the current situation? What goals does the nation wish to achieve? What rules, if any, should apply? And who will formulate and enforce those rules? Those in charge must also be prepared to justify their decisions to a wide variety of interested people and find a way to place decisions about particular uses of the oceans into a larger framework so the results will be coherent and enduring.

In considering how to craft an ocean framework for the future, the U.S. Commission on Ocean Policy reviewed the lessons of the past and listened closely to affected individuals around the country.

Ocean Policy from World War II to the Oceans Act of 2000

Volumes have been written about the intricacies of ocean policy and its development in the United States. The following sections offer a brief glimpse of this history, setting the stage for the work of the U.S. Commission on Ocean Policy.

Formative Years

U.S. ocean policy developed slowly and fairly consistently from the founding of the United States until the immediate aftermath of World War II. Since then, it has zigged and zagged in response to shifting public attitudes based on major events related to national security, the environment, and political philosophy. American policy—or more accurately the amalgamation of many policies—has been shaped by the nation's unique status as both the world's leading maritime power and the possessor of a long and rich shoreline, giving us a stake both in protecting freedom of navigation and in expanding the resource jurisdiction of coastal countries. Over time, our management of ocean issues has been roiled by conflicting interests of the federal and state governments, torn by tensions between short- and long-term needs, blurred by ideological disagreements, and complicated by the wide variety of uses we make of our vast and versatile—but also vulnerable—seas.

One ongoing challenge for policy makers has been to find the right balance between the exploitation of marine resources, whether living or nonliving, and the conservation of those resources and protection of the marine environment. Petroleum exploration, commercial fishing, and marine mammal protection are just three of the arenas where this

drama has played out. The United States has also shown a tendency to swing back and forth between internationalism and unilateralism—at times working with other countries to shape global rules, and at other times asserting the right to establish our own rules outside of, or in advance of, the global consensus.

The nation's primary maritime concerns have been to preserve the right to free navigation while asserting jurisdiction over fishing and law enforcement in U.S. waters. In a letter from Secretary of State Thomas Jefferson to the governments of Britain and France in 1793, the United States officially claimed authority over a 3 nautical mile territorial sea. Over the next century and a half, the federal government's role in the oceans was limited primarily to the activities of the U.S. Navy, the U.S. Coast Guard, and the Coast and Geodetic Survey, the promotion of the U.S. Merchant Marine, and diplomatic negotiations over access to the rich fishing grounds off the North Atlantic coast and the taking of fur seals in the North Pacific and Bering Sea.

Interestingly, the problem of depleted fish stocks, often assumed to be a recent development, is not new. In 1871, the federal government established the Office of the Commissioner of Fish and Fisheries to study the dilemma. Warnings have been issued and various remedies proposed periodically ever since. In 1882, the first U.S. research vessel built exclusively for fisheries and oceanographic research entered service, and for the next thirty-nine years the 234-foot USS *Albatross* plied waters around the globe.

It was not until after World War II that a process referred to as *enclosure of the oceans* began in earnest. In contrast to the traditional view of the oceans as belonging to everyone (and therefore to no one), a movement to extend the rights of coastal states gathered momentum. Among the factors driving this trend was competition for oil and gas. On September 28, 1945, President Truman issued a proclamation asserting control over the natural resources of the continental shelf beneath the high seas adjacent to the territorial waters of the United States. In 1947, the Supreme Court decision in *United States v. California* awarded the federal government jurisdiction over all U.S. ocean resources from the tidemark seaward. This judgment, highly unpopular in coastal regions, led to the passage of the Submerged Lands Act of 1953, which returned resource jurisdiction within the 3 nautical mile territorial sea to coastal states. A companion bill enacted in the same year, the Outer Continental Shelf Lands Act, authorized the Secretary of the Interior to lease federal areas of the continental shelf for oil and gas exploration and development.

From Sputnik to Stratton

On October 4, 1957, the Soviet Union launched Sputnik, the world's first space satellite. This was one of several major events that would sharply alter the direction of U.S. ocean policy during the last half of the 20th century. The show of Soviet prowess shocked America, spurring national resolve. It seemed suddenly as if every arena of activity, from the construction of intercontinental ballistic missiles to the training of athletes for the Olympic high jump, had become a test of dueling national wills. The foremost areas of competition were technology and science.

In 1959, the National Research Council released a report that recommended doubling the federal government's commitment to oceanography, building a new research fleet, and forging stronger partnerships with academic institutions.¹ The recommendations served as the basis for ocean policy under President Kennedy and attracted strong support from such influential senators as Warren Magnuson of Washington who warned, in the spirit of the times, "Soviet Russia aspires to command the oceans and has mapped a shrewdly conceived plan, using science as a weapon to win her that supremacy."²

This era of scientific enthusiasm and advancement saw the Navy and the National Science Foundation (NSF) take on critical roles in developing U.S. ocean capabilities. The post-World War II period brought significant Navy investment in basic research into ocean processes, resulting in the development of most of today's oceanographic instru-

ments. The Navy's ocean data holdings have been called the crown jewels of global oceanography, and its investment in operational ocean infrastructure has contributed greatly to U.S. ocean capability and influence in international ocean affairs. NSF came into existence at the end of World War II, largely due to the recognition that support for basic research was essential to national well-being. Since that time, NSF has increasingly become the leader in support for ocean research and related infrastructure. Through their investments in basic and applied research, operations, education, and infrastructure, NSF and the Navy helped create a robust and influential ocean research community in the United States.

In the 1960s, faith in the power of science was at its apogee. Said *Time* magazine:

U.S. scientists and their colleagues in other free lands are indeed the true 20th century adventurers, the explorers of the unknown, the real intellectuals of the day, the leaders of mankind's greatest inquiry into the mysteries of matter, of the earth, the universe and of life itself. Their work shapes the life of every human presently inhabiting the planet, and will influence the destiny of generations to come.³

In this context, the appetite for exploring the unknown was seemingly insatiable, applying not only to outer space but also to inner space—the mysterious depths of the sea. In addition to ongoing investments in ocean research by the Navy and NSF, in 1966 Congress created the National Sea Grant College Program (Sea Grant) within NSF, based on the long-established model of Land Grant colleges. After a modest beginning, Sea Grant evolved into a popular initiative within the marine science community and the public and became a prime source of support for research in marine-related subjects outside oceanography, including fisheries and law.

Support grew for the creation of an independent national ocean agency, a watery counterpart to the National Aeronautics and Space Administration. To prepare the way, Congress approved the Marine Resources and Engineering Development Act, signed by President Johnson on June 17, 1966. The Act included a declaration of U.S. policy, the formation of a national council chaired by the Vice President, and the establishment of a presidential Commission on Marine Science, Engineering and Resources. Julius Stratton, president emeritus of the Massachusetts Institute of Technology and chairman of the Ford Foundation, was named as chair of that Commission.

During the next two years, the Stratton Commission's fifteen members and four congressional advisers conducted hearings and held meetings in every coastal region of the country. In January 1969, the Commission issued its report, *Our Nation and the Sea*, containing 126 recommendations.⁴ The report had a catalytic impact for several reasons. It was the first truly comprehensive study of American ocean policy. It went beyond oceanography to examine a wide range of marine issues, including: the organization of the federal government; the role of the ocean in national security; the potential economic contributions of oil, gas, and other marine resources; the importance of protecting coastal and marine environments; and the need to promote American fisheries. Some recommendations were never realized (such as building offshore nuclear power plants), but others comprised the foundation for a new era in U.S. ocean policy, leading most directly to creation of the National Oceanic and Atmospheric Administration (NOAA) in 1970 and the enactment of the Coastal Zone Management Act (CZMA) in 1972.

The Stratton Commission called for the centralization of federal civilian ocean management efforts within a single new agency—envisioning a NOAA that would be independent and in charge of virtually every nonmilitary aspect of marine policy. This did not happen. The White House budget office opposed the establishment of an independent agency, the Secretary of Transportation was unwilling to give up the Coast Guard, and the

Maritime Administration remained separate. So when NOAA was born on July 9, 1970 (via Reorganization Plan #4), its prospects for thriving within the bureaucracy were slim. Lodged within the U.S. Department of Commerce, it lacked cabinet status, independence, a congressional charter, and control over many federal marine activities. NOAA did, however, become a center of federal ocean and atmospheric expertise, bringing together nine programs from five departments, including the Environmental Sciences Services Administration, the Bureau of Commercial Fisheries, and the Sea Grant program.

The impact of the Stratton Commission report was magnified by its timeliness. Once again, events were occurring that would guide the direction of ocean policy, this time toward greater environmental awareness. In 1966, seismic tests in the Georges Bank fishing grounds caused an explosion that halted fishing for three weeks and prompted calls for a ban on oil and gas activity in the area. In January 1969, Union Oil's Platform A in the Santa Barbara Channel blew out, spilling some 3 million gallons of oil, killing marine life, and affecting more than 150 miles of shoreline. The images of soiled beaches, oil-soaked birds, and belly-up fish generated widespread public concern and contributed to the enactment of a law that would profoundly affect the approach of the federal government to natural resources of every description—the 1969 National Environmental Policy Act (NEPA).

Years of Activism

To an extent not seen before or since, the political climate between 1969 and 1980 was ripe for initiatives to expand the federal role in ocean and environmental management. The Stratton report had sounded the trumpet, calling upon “Congress and the President to develop a national ocean program worthy of a great sea nation.” Segments of the American public, aroused by the Santa Barbara oil spill and the inaugural Earth Day on April 22, 1970, lent support to a new generation of activist environmental organizations demanding federal action. Members of Congress, empowered by internal reforms that enlarged staffs and somewhat weakened the seniority system for selection of committee chairs, were eager to play a policy-making role. Internationally, the United Nations Conference on the Human Environment met in Stockholm in 1972, a milestone for the environmental movement. Both at home and overseas, the oceans were caught up in the larger pro-environment trend.

As a result, the stewardship ethic embodied by NEPA—the idea that the government should study, plan, and offer the opportunity for public comment before acting—was applied to the oceans. This principle was at the heart of the new law dealing with America's increasingly populous coastal zone. The CZMA constituted a marriage of federal activism and states' rights. Entirely voluntary, the program offered grants to states to help develop and implement coastal management plans tailored to local needs but reflecting broad national interests. To encourage states to enforce their plans, the federal government agreed to honor them as well. This pledge to make federal actions affecting the coastal zone consistent with state plans (referred to as the federal consistency provisions) was novel and would, at times, prove controversial.

Other major ocean-related legislation enacted during this period included measures to improve the nation's water quality, regulate ocean dumping, designate marine sanctuaries, prohibit the taking of marine mammals, protect endangered species, license deep-water ports, promote aquaculture, and encourage the development of ocean thermal energy conversion as a renewable source of power. The most dramatic expansion of federal ocean activity, however, resulted from enactment of the Fishery Conservation and Management Act, later renamed the Magnuson–Stevens Fishery Conservation and Management Act. According to its terms, on March 1, 1977, American fisheries jurisdiction was extended from 12 to 200 nautical miles, an expansion in area roughly equal to the size of the continental United States. This action reflected a triumph of America's interest in championing the rights of coastal nations to control resources over its interest in defending the maximum degree of freedom on the high seas.

Thirty years ago when the Stratton Commission looked at the problems of our oceans, the main focus was the threat to our ocean resources from others. One of the things that helped the Stratton Commission is the fact that when you have an enemy you can identify, you can get policy done pretty fast. But when your enemy is your own behavior, that's tough to do. I think that's what we confront now.

—The Honorable Leon Panetta, Chairman of the Pew Oceans Commission, testimony to the Commission, October 2002

The legislation was prompted by the anger of U.S. fishermen, especially in the North Atlantic and off Alaska, regarding the presence on their traditional fishing grounds of massive foreign factory trawlers scooping tons of fish from the sea. The trawlers, many from the Soviet Union, were able to operate at all hours, even in harsh weather, catching fish and freezing them on the spot. By the end of the 1960s, America had dropped from second to sixth in its share of world fishery catch and a substantial segment of the U.S. commercial fishing industry was in deep trouble. Compared to the large, modern, efficient Soviet trawlers, most U.S. vessels were small and inefficient. Although the U.S. Department of State urged Congress to delay action pending the outcome of global negotiations on the U.N. Convention on the Law of the Sea (LOS Convention), those discussions were going slowly, and the pressure to act became overwhelming.

The management scheme created by the Magnuson–Stevens Act was imaginative, yet complicated: Regional Fishery Management Councils were appointed and required to develop and submit plans for managing particular species to the Secretary of Commerce for approval. The intention was to harness regional expertise in the national interest, make full use of scientific data, and give the industry a voice in designing the means of its own regulation. The Coast Guard was tasked with achieving the law’s main selling point—foreigner fishing fleets out, Americans in—and various measures were developed to encourage new investment in the U.S. fishing fleet. The explicit intent of the statute was to prevent overfishing, rebuild overfished stocks, and realize the full potential of the nation’s fishery resources. Despite the challenge of persuading fiercely independent fishermen to accept restrictions on their activities, there was much optimism in the early years that the Magnuson–Stevens Act’s ambitious goals would be met.

Meanwhile, policy makers were coping with another pressing concern: the Arab oil embargo triggered by the 1973 Middle East war had a direct impact on the lives of millions of Americans. Heating costs soared, and the simple act of filling up at the local gas station turned into a nightmare. The country’s vulnerability to disruptions caused by dependence on uncertain supplies of foreign oil became a major economic and national security issue. In response, the Nixon administration proposed a massive expansion of outer Continental Shelf (OCS) oil and gas leasing to include frontier areas off the Atlantic, Gulf, and Pacific coasts. This proposal ran counter to the pro-environmental currents then circulating, and posed a challenge to lawmakers searching for a way to address ecological and energy supply concerns simultaneously. The result was the OCS Lands Act Amendments of 1978, the product of three years of bipartisan legislative effort, designed to encourage leasing subject to new planning requirements, more rigorous environmental standards, and measures to ensure that the views of state and local governments were taken into account.

The many ocean-related laws spawned during the 1970s addressed urgent needs, introduced creative management concepts, and multiplied the scope of federal responsibility. But they lacked an overarching vision critical to a coherent national ocean policy. NOAA was neither equipped nor authorized to set priorities across more than a small portion of the spectrum of marine activities, and most of the laws enacted were aimed at a single purpose or ocean use, and implemented with little reference to others.

The inherent difficulty of managing diverse activities over a vast geographic area, and the incremental manner in which the federal ocean regime was assembled, inevitably resulted in fragmentation. The three presidents who served between 1969 and 1981 did not provide strong policy direction on ocean issues. In the absence of such direction, neither the executive branch nor Congress was structured in a way that fostered a comprehensive approach to the oceans. No federal department could claim the lead, and crosscutting legislative initiatives were referred to multiple congressional committees where differing perspectives tended to cancel each other out. Notwithstanding the Stratton Commission’s call for centralization, by 1980 federal responsibility for ocean-related programs was distributed among ten departments and eight independent agencies.

Contention and Stalemate

The 1981 inauguration of President Reagan altered the direction of America's approach to ocean and coastal issues. For the first time since the days of Presidents Kennedy and Johnson, the White House was the source of clear policy direction for the oceans. While the consensus in the 1970s had favored a larger federal role, the new administration wanted to reduce the size of government. While legislation approved in the 1970s called for a steady increase in investments to achieve marine-related goals, the Reagan philosophy called for cutbacks. While the mood of the 1970s leaned heavily in the direction of environmental protection, the new administration favored a minimum of restrictions on the private sector.

U.S. Department of the Interior (DOI) Secretary James Watt departed from the earlier practice of offering limited offshore areas for energy leases and, in 1982, introduced the concept of area-wide leasing, opening dramatically larger areas of the OCS simultaneously. As a result of Watt's new policy, 275 million acres of the OCS were offered for lease in 1983-84, compared to a two-year average of less than 8.5 million acres in the immediately preceding ten year period. At the same time, the administration proposed to eliminate funding for the Sea Grant and Coastal Zone Management programs, reduce investments in oceanographic research, and privatize a number of functions carried out by NOAA. Congress responded to Secretary Watt's proposals by including a provision in the 1982 DOI appropriations bill that prohibited it from leasing certain offshore areas. This practice of legislating moratoria soon took hold, leading eventually to 50 nautical mile no-leasing buffer zones along much of the Atlantic and Pacific coasts. President Reagan's successors later removed almost all new areas from leasing consideration through 2012. As the OCS program gyrated from one extreme to the other, the balanced approach Congress sought when amending the OCS Lands Act in 1978 was never fully tested, despite the still-compelling need for secure energy supplies.

The Reagan administration also changed the tenor of American ocean policy internationally. Since 1958, efforts had been underway to negotiate an international agreement on the law of the sea, spelling out a global consensus on such matters as freedom of navigation, fisheries jurisdiction, continental shelf resources, and the width of the territorial sea. At the request of less developed nations, the third round of negotiations, begun in 1973, included consideration of an elaborate international regime to govern the mining of minerals from the deep seabed in areas outside the jurisdiction of any country. Advocates argued that minerals found beneath international waters should be considered part of the "common heritage of mankind," thus subject to a system of controls on production, mandatory technology transfer provisions, and other regulatory requirements implemented by an international seabed institution. The Reagan administration, with support from many in both parties in Congress, argued that the deep seabed was a frontier area to which access for exploration and exploitation should be assured without the restrictions of what it deemed to be the anti-free market components of the pending regime. When the Law of the Sea negotiations concluded in 1982, the United States was one of four countries to vote against the resulting convention.

Despite this, the administration soon took a number of steps that recognized provisions in the convention. In 1983, President Reagan declared a 200 nautical mile exclusive economic zone (EEZ), changing what had been a continental shelf and fishery resource jurisdictional system into an exclusive regime governing access to all ocean and continental shelf resources, including the water column itself (though not impeding the right to free navigation). The Reagan EEZ Proclamation included an accompanying presidential statement that the United States would accept and act in accordance with the balance of interests reflected in the convention, except for the provisions on deep seabed mining. Finally, five years later, the United States officially extended its territorial sea from 3 to 12 nautical miles. The administration, however, did not offer any significant plans for exploring or exercising a new management role in these areas.

The architects of ocean-related programs in the 1970s built on the foundation of the Stratton Commission, creating a multidimensional framework for the management of America's stake in the oceans. The Reagan administration saw much of that framework as unrelated to—or even interfering with—the core government functions of national defense and fostering free enterprise. The result was an ongoing clash that ratified the vision of neither side, producing a stalemate. The administration did not succeed in eliminating programs such as Sea Grant and Coastal Zone Management, but it was able to hold the line or reduce financial support for most of them. Funding for NOAA's ocean research, for example, declined from \$117.9 million in 1982 to \$40.7 million in 1988. Many managers, earlier preoccupied with implementing their programs, spent much of the 1980s trying to save them.

Search for Coherence

Recent years have been characterized neither by the rapid growth in federal ocean activity characteristic of the 1970s, nor by the change in course that took place in the 1980s. The *EXXON Valdez* oil spill in Prince William Sound, occurring a few months after President George H.W. Bush took office in 1989, helped revive support for environmentally protective legislation. The spill led directly to enactment of the 1990 Oil Pollution Act, mandating double hulls for tankers entering U.S. ports by 2015 and setting liability standards for oil spills. That same year, amendments to the CZMA clarified that OCS lease sales are subject to the federal consistency provisions of the statute. Frustrated by the persistence of marine pollution, Congress continued to search for effective ways to reduce pollution from nonpoint sources, such as urban runoff and agriculture. Mounting alarm about the depletion of major groundfish stocks, despite two decades of management under the Magnuson–Stevens Act, led to the 1996 Sustainable Fisheries Act, designed to prevent overfishing.

On the world stage, the United Nations Conference on Environment and Development—the Earth Summit—held in Rio de Janeiro in 1992, made recommendations in seven program areas dealing with the conservation of marine and coastal resources. It also produced the United Nations Framework Agreement on Climate Change (ratified by the United States in 1992) and the Convention on Biological Diversity (which the United States has not ratified). In 1994, an agreement was reached addressing U.S. concerns on implementing the deep seabed mining provisions of the LOS Convention, and the Clinton administration sent the treaty to the Senate for advice and consent, where it still lingers, though it is in force internationally. (For a summary of many ocean-related international agreements, see Table 29.1.)

The dominant trend in U.S. ocean policy in the 1990s was a growing sense of dissatisfaction with the ad hoc approach. Much had changed since the Stratton Commission report was issued in 1969. New opportunities, such as offshore aquaculture and marine biotechnology, were being held back by the lack of appropriate management structures to guide development. Pressures on ocean and coastal areas continued to intensify and new threats loomed, such as sea-level rise and increased storm frequency attributed to global climate change, as well as puzzling and sometimes deadly algal blooms. The link between science and policy that had seemed so essential and exciting to the nation in the 1960s now suffered from insufficient investment and high-level neglect. On many key ocean issues, debate was leading not to consensus, but rather to heightened disagreements that could not be resolved under existing laws and arrangements, and often to litigation.

The sense of partial paralysis was strengthened by the existence through most of the decade of divided government, with different parties in control of the White House and Congress. None of the many centers of power was able to lead with sustained success. In search of coherence, panels assembled by the National Research Council, as well as expert groups brought together under other auspices, recommended a detailed study of the nation's ocean-related laws, programs, activities, and needs.

Consensus for Change

Since the publication of the Stratton Commission's report, seventeen Congresses and seven presidents have created, expanded, and remodeled the current framework of laws governing ocean and coastal management. At last count, more than 55 congressional committees and subcommittees (Appendix F) oversee some 20 federal agencies and permanent commissions in implementing at least 140 federal ocean-related statutes.

Recognition of the growing economic importance and ecological sensitivity of the oceans and coasts, our responsibility to future generations, and the inadequacies of the current management regime set the stage for enactment of the Oceans Act of 2000 (Appendix A), establishing the U.S. Commission on Ocean Policy. Although publicly financed, the Commission is fully independent and is charged with carrying out the first comprehensive review of marine-related issues and laws in more than thirty years to assist the nation in creating a truly effective and farsighted ocean policy. The timing of the Commission's work overlapped with that of the privately funded and more narrowly focused Pew Oceans Commission, whose recommendations contributed to the growing dialogue on the need for such policy.⁵

In enacting the Oceans Act, Congress cited the pressing need for a coherent national system of ocean governance. Factors contributing to this need include rising coastal populations, increased competition for ocean space, demand for port facilities, the emergence of potential new ocean uses, the decline of vital commercial fishery stocks, unresolved debates over offshore energy and mineral development, the persistence of marine pollution, the contamination of seafood, the loss of coastal wetlands, and the prospect that enhanced knowledge of the oceans will improve our ability to comprehend the causes of climate variability and other not yet fully grasped environmental threats.

The Commission was established because the nation is not now sufficiently organized legally or administratively to make decisions, set priorities, resolve conflicts, and articulate clear and consistent policies that respond to the wealth of problems and opportunities ocean users face. In the words of the Senate Committee on Commerce, Science, and Transportation: "Today, people who work and live on the water, from fishermen to corporations, face a patchwork of confusing and sometimes contradictory federal and state authorities and regulations. No mechanism exists for establishing a common vision or set of objectives."⁶

In September 2001, a major event again altered the lens through which America views ocean policy. Terrorist attacks on U.S. soil resulted in the placement of a higher priority on maritime security issues. That very month, the Commission's initial organizational meeting was held. The Coast Guard was soon transferred to the new U.S. Department of Homeland Security. Meanwhile, partly as a result of the war on terror, constraints on the domestic discretionary part of the U.S. government's budget raised new questions not only about what U.S. ocean policy should be, but also about what policy choices the nation can afford.

Launching the U.S. Commission on Ocean Policy

A Broad Mandate

The Commission was directed to address numerous challenging issues, ranging from the stewardship of fisheries and marine life to the status of knowledge about the marine environment, as well as the relationships among federal, state, and local governments and the private sector in carrying out ocean and coastal activities. The Oceans Act requires that the Commission suggest ways to reduce duplication, improve efficiency, enhance cooperation, and modify the structure of federal agencies involved in managing the oceans and coasts.

With input from the states, a science advisory panel, and the public, the Commission was instructed to prepare a report presenting recommendations to the President and

The world has changed politically, technologically, scientifically, and socially in the past thirty years. The convening of this Commission is timely as it examines the present status of ocean policy in the United States, and changes that are needed.

—Dr. Robert White, President Emeritus of the National Academy of Engineering, Member of the Stratton Commission ('67-'68), and First NOAA Administrator ('70-'77), testimony to the Commission, October 2002

Congress on ocean and coastal issues for the purpose of developing a coordinated and comprehensive national ocean policy. The Oceans Act states that this national ocean policy should promote protection of life and property, responsible stewardship of ocean and coastal resources, protection of the marine environment and prevention of marine pollution, enhancement of marine commerce, expansion of human knowledge of the marine environment, investment in technologies to promote energy and food security, close cooperation among government agencies, and preservation of U.S. leadership in ocean and coastal activities. In developing its recommendations, the Commission was required to give equal consideration to environmental, technical feasibility, economic, and scientific factors.

Specifically, the Commission's report was required to include the following elements:

- An assessment of ocean facilities including vessels, people, laboratories, computers, and satellites (Appendix 5);
- A review of federal laws and regulations on U.S. ocean and coastal activities (Appendix 6);
- A review of the supply and demand for ocean and coastal resources;
- A review of the relationships among federal, state, and local governments and the private sector;
- A review of the opportunities for investment in new products and technologies;
- Recommendations for modifications to federal laws and the structure of federal agencies; and
- A review of the effectiveness of existing federal interagency policy coordination.

The Commission Members

In accordance with guidelines set forth in the Oceans Act, in July 2001 President George W. Bush appointed sixteen citizens knowledgeable in ocean and coastal activities to serve on the U.S. Commission on Ocean Policy. The President selected twelve members from lists submitted by the Senate Majority Leader, the Senate Minority Leader, the Speaker of the House of Representatives, and the Minority Leader of the House. The remaining four members were chosen directly by the President. The Commission members (listed at the front of this report) come from positions and diverse professional backgrounds in: federal, state, and local governments; private industry; and academic and research institutions involved in marine-related issues. Admiral James D. Watkins, USN (Retired), was elected chair by his fellow commissioners at the first Commission meeting.

How the Commission Did Its Work

This report was developed after careful consideration of materials gathered during public meetings, through public comment, from existing literature, and through input of science advisors and other noteworthy experts. The input received from all of these sources served to guide the development of this report.

Regional Meetings

Because of the vast scope of topics the Commission was required to address, it sought input from a wide range of experts across the country. After two initial organizing meetings in Washington, D.C., the Commission heard testimony on ocean and coastal issues in nine different areas around the United States during a series of regional meetings and related site visits (Box 2.1). The Commission was required to hold at least one public meeting in Alaska, the Northeast (including the Great Lakes), the Southeast (including the Caribbean), the Southwest (including Hawaii and the Pacific Territories), the Northwest, and the Gulf of Mexico. To obtain information from an even greater segment of U.S. marine-related interests, the commissioners held three additional regional meetings. The commissioners also learned about important regional issues through site visits.

Box 2.1 Public Meetings of the U.S. Commission on Ocean Policy

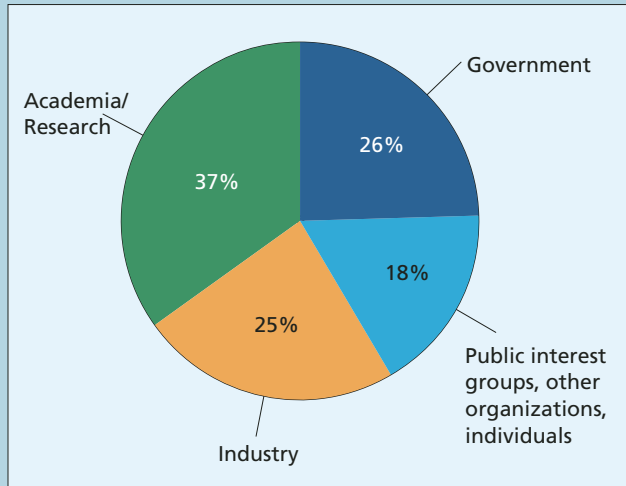
The Commissioners held sixteen public meetings and conducted eighteen regional site visits to examine a wide range of important issues and gain input from local, state, and regional ocean communities throughout the United States.

- **Washington, D.C.**
September 17–18, 2001: Public meeting
- **Washington, D.C.**
November 13–14, 2001: Public meeting
- **Southeast—Delaware to Georgia**
January 14, 2002: Regional site visits (Annapolis/Chesapeake Bay, MD; Charleston, SC)
January 15–16, 2002: Public meetings in Charleston, SC
- **Florida and the Caribbean**
February 21, 2002: Regional site visits (Puerto Rico; South Florida east coast; Tampa–Sarasota, FL)
February 22, 2002: Public meeting in St. Petersburg, FL
- **Gulf of Mexico—Alabama to Texas**
February 19, 2002: Regional site visit (Texas A&M University, TX)
March 6, 2002: Regional site visits (offshore New Orleans, LA; Stennis Space Center, MS)
March 7–8, 2002: Public meetings in New Orleans, LA
- **Southwest—California**
April 17, 2002: Regional site visits (San Diego and Monterey, CA)
April 18–19, 2002: Public meetings in San Pedro, CA
- **Hawaii and Pacific Islands**
May 13–14, 2002: Public meetings in Honolulu, HI
- **Northwest—Washington and Oregon**
March 20, 2002: Regional site visit (Portland, OR)
June 12, 2002: Regional site visits (Olympia and Seattle, WA)
June 13–14, 2002: Public meetings in Seattle, WA
- **Northeast—New Jersey to Maine**
July 22, 2002: Regional site visits (southern New England; New York–New Jersey; northern New England)
July 23–24, 2002: Public meetings in Boston, MA
- **Alaska**
August 21–22, 2002: Public meetings in Anchorage, AK
August 23, 2002: Regional site visits (Dutch Harbor and Juneau, AK)
- **Great Lakes**
September 24–25, 2002: Public meetings in Chicago, IL
- **Washington, D.C.**
October 30, 2002: Public meeting
- **Washington, D.C.**
November 22, 2002: Public meeting
- **Washington, D.C.**
January 24, 2003: Public meeting
- **Washington, D.C.**
April 2–3, 2003: Public meetings
- **Washington, D.C.**
April 20, 2004: Release of the Preliminary Report
- **Washington, D.C.**
July 22, 2004: Public meeting and approval of the draft Final Report

The public meetings provided government agencies, nongovernmental organizations, industry, academia, and the public the opportunity to directly discuss ocean and coastal concerns with the Commission. Commissioners held dialogues with invited speakers and sought comments from members of the public to gain insight into issues and opportunities facing each region, and to solicit recommendations for Commission consideration. The regional meetings highlighted relevant case studies and regional models with potential national applicability.

Invited panelists were selected based on their expertise on the topics highlighted at each meeting, with a strong effort to maintain a balance of interests and gain perspectives from all sectors (Figure 2.1). Six additional public meetings were held in Washington,

Figure 2.1 Invited Panelists Represented All Sectors of the Ocean Community



A breakdown of the 275 panelists invited to present testimony before the U.S. Commission on Ocean Policy illustrates the breadth of input received.

D.C., after completion of the regional meetings. At the four immediately following the regional meetings, the commissioners presented and discussed the many policy options that served as the foundation for the Commission's recommendations. Overall during its public meetings, the Commission heard from some 447 witnesses, including over 275 invited presentations and an additional 172 comments from the public, resulting in nearly 1,900 pages of testimony (Appendices 1 and 2).

Working Groups

During the first Commission meeting in September 2001, the commissioners agreed to establish four working groups in the areas of: Governance; Stewardship; Research, Education, and Marine Operations; and Investment and Implementation. These working groups were charged with reviewing and analyzing issues within their area and reporting their findings to the full Commission.

Based on extensive reviews of the testimony, public comments, background papers prepared by expert consultants, existing literature, and discussions with a broad cross-section of the marine-related community, the working groups identified key issues and outlined possible options for addressing them. The working groups shared their work with each other throughout the deliberative process to ensure thorough integration and coordination in developing the final Commission report and recommendations.

The Governance Working Group examined the roles of federal, state, and local governments as they relate to the oceans. It also assessed the management of the coastal zone and nonliving marine resources and provided options for improvement.

The Stewardship Working Group addressed living marine resources, pollution, and water quality issues and assessed the current status of ocean stewardship—the behavior of people with respect to the oceans—and incentives for responsible actions. The group concentrated on actions to achieve responsible and sustainable use of the ocean and its resources.

The Research, Education, and Marine Operations Working Group examined ocean and coastal research, exploration, air-ocean interaction research, education, marine operations, and related technology and facilities. This group analyzed the current status in these areas to assess their adequacy in achieving the national goals set forth in the Oceans Act.

Finally, the Investment and Implementation Working Group discussed the new investment and implementation strategies needed to carry out the Commission's proposed ocean policy. This working group concentrated on identifying the federal structures, processes, and investments necessary to integrate, implement, and sustain the recommendations proposed by the other working groups.

Science Advisory Panel

The Oceans Act directed the Commission, with assistance from the National Academy of Sciences, to establish a multidisciplinary science advisory panel consisting of experts in living and nonliving marine resource issues from outside the federal government. The panel (listed at the front of this report) included many of the finest ocean science and marine policy practitioners and researchers in the nation and reflected the breadth of issues before the Commission. Panel members provided expert advice on a range of issues and reviewed draft materials to ensure the Commission's report was based on the best scientific information available.

Other Sources of Information

Throughout its work, the Commission continuously sought advice from experts on specific issues of concern through formal seminars and conferences, informal meetings and discussions, and preparation of background reports. Striving to maintain communication with all interested parties and to gain knowledge from a range of sources, the Commission also encouraged members of the public to submit information for the official record throughout the Commission's fact-finding and deliberative phases. An active Web site was maintained to facilitate public input.

As a result of the Commission's outreach efforts, some 3,200 pages of information have been filed in the official Commission record. This vast wealth of accumulated information provided examples of successful approaches and formed the basis for the Commission's recommendations.

The Preliminary Report and Governors' Comments

Following extensive consideration, and deliberations on a broad array of potential solutions, the Commission released a preliminary report in April 2004. Although the Oceans Act only required the draft report be sent to coastal state governors, the Commission went further, soliciting feedback from all state and territorial governors, tribal leaders, and the public. The response was overwhelming. Thoughtful, constructive feedback was received from thirty-seven governors (including 33 of the 34 from coastal states), five tribal leaders, and a multitude of other organizations and individuals—over one thousand pages in all. Commenters were nearly unanimous in praising the report, agreeing that our oceans are in trouble, and supporting the call for action to rectify the situation. Where governors and others offered corrections or suggestions for improvement, the Commission paid close attention and made changes as needed.

The Result

This final report of the U.S. Commission on Ocean Policy, along with its extensive appendices, is the culmination of more than two and a half years of information gathering, discussion, deliberation, review, and refinement. It represents a consensus of the sixteen Commission members on the best course of action for this nation to realize a coordinated and comprehensive national ocean and coastal policy. Meaningful change will require a reorientation of political, economic, and social attitudes and behaviors. Such change is likely to take time, but it must begin now if we are to reverse a continuing decline in the health and economic vitality of ocean and coastal waters.

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