

From the days of discovery and colonization, America has looked to the sea. In times of stress the sea has been our ally, and in times of peace, a source of our prosperity. Sometimes hostile and sometimes generous in its moods, the ocean always has offered its abundant resources in countless ways. But only recently have we begun to perceive its true potential.

The driving force and urgency of our new concern for the sea stem from the changing character of the world itself—from mounting economic needs, from congested populations, from our own deteriorating shores. It is now nearly 10 years since reports by the National Academy of Sciences and the U.S. Navy focused attention upon the vital import of our underdeveloped marine resources. The intervening decade has been marked by a mounting interest and activity. Further reports, studies, and statements have poured forth in profusion, representing the experience, the views, and the best judgment of the outstanding experts of the country. Throughout this period a voluminous legislative record testifies also to a growing Congressional concern, which culminated in June 1966 in the Marine Resources and Engineering Development Act, expressing a conviction and defining a national purpose:

- A conviction that the time had arrived for this country to give serious and systematic attention to our marine environment and to the potential resources of the oceans
- A national determination to take the steps necessary to stimulate marine exploration, science, technology, and financial investment on a vastly augmented scale.

The Act established two complementary bodies: the National Council on Marine Resources and Engineering Development and the Commission on Marine Science, Engineering and Resources.

With the Vice President as Chairman, the Council is comprised of the heads of the major Federal departments and agencies with marine missions. The Council was charged with the planning and coordination of current marine programs and with advising and assisting the President. It continually surveys the state of marine affairs and has shaped and strengthened Federal marine programs.

In contrast, the members of the Commission, appointed early in 1967 by the President, represent diverse interests and areas of the country, and the Commission was left wholly free of operating responsibility.

First, the Commission was asked to examine the Nation's stake in the development, utilization, and preservation of our marine environment.

Second, we were to review all current and contemplated marine activities and to assess their adequacy to achieve the national goals set forth in the Act.

Third, on the basis of its studies and assessment, the Commission was to formulate a comprehensive, long-term, national program for marine affairs designed to meet present and future national needs in the most effective possible manner.

And finally, we were requested to recommend a plan of Government organization best adapted to the support of the program and to indicate the expected costs.

Consequently, the report which the Commission now presents goes beyond the confines of oceanography as a science to encompass marine technology and the resources of the seas. The difficulties of our task were compounded by the dramatic rapidity with which changes and expansion are taking place throughout all elements of the marine community. Since we set to work, deep submersible capability has been extended beyond a nautical mile in depth; man-in-the-sea proj-

ects are measured in weeks instead of days; the offshore petroleum exploratory well depth record has doubled from 640 feet to 1,300 feet. While ships have increased in size to giant 300,000-ton tankers, our advances have been punctuated by occasional disasters that presage the urgent need to minimize the growing hazards of new technology.

The National Sea Grant Program and the new water pollution control programs are notable examples of Federal efforts to spur beneficial marine activity. Progress in the production of fish protein concentrate has raised expectations about animal protein from the sea. On the international scene, the Malta Resolution to the United Nations General Assembly highlighted the legal and political problems that will surround exploitation of the mineral resources of the deep seas which technology promises to bring within the reach of man. The U.S. initiative in proposing an International Decade of Ocean Exploration has further intensified interest in international scientific collaboration.

Although the Commission has treated its mandate broadly, it has not been possible within the time available to make an exhaustive examination and assessment of all marine activities. We have taken account of the relationship between civil and military marine affairs in various sections of this report but have made no attempt to treat questions of military security as such. Nor has the Commission dealt with the immensely complex problems of the U.S. Merchant Marine, about which many studies exist. We have, however, considered the requirements which the use of the sea for transportation places upon our ports and upon services offshore.

The problems of pollution have taken a prominent role in the Commission's studies and recommendations. But we have been well

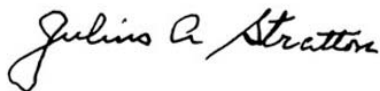
aware that waste disposal and pollution in the ocean and estuaries are often inseparable from pollution upstream and even pollution in the air and land environments; these ultimately must be treated as a single problem. We have deemed it appropriate to our mission, however, to consider those pollution problems that affect directly the marine environment, including the Great Lakes.

In approaching its task, the Commission resolved itself into seven panels to examine and assess well-defined areas of marine activity: basic science; marine engineering and technology; marine resources; environmental monitoring and the management of the coastal zone; industry and private investment; international issues; and education, manpower, and training. These panels held many hearings, traveled about the country to gain firsthand knowledge of activities related to their assignments, and finally distilled a tremendous mass of material into a series of reports. Throughout this period of study and drafting, the Commission met together regularly to review and evaluate critically the findings and recommendations of these task forces. The panel reports are to be published separately, and we commend them to the attention of all those who wish to go more deeply into the subject. They constitute the primary source material upon which the Commission based its own final conclusions.

We are convinced that the recommended national marine program will contribute materially to the national economy and strengthen the national security. The pages that follow outline not a crash endeavor but one geared realistically to the means of the Nation. We realize that, in terms of timing, each element of this program must be considered in the context of overall national priorities.

Our proposal for reorganization, however, is urged for immediate adoption. We believe that it will mobilize the resources of our Government in the most effective manner to lend strength and power to the Nation's marine commitment. The incremental cost in taking prompt action for consolidation will in itself be relatively small. The added effectiveness for the fulfillment of the national program should be enormous.

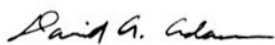
The Commission harbors no illusions that it has provided final answers to the multitude of questions that relate to the future use of the seas. Indeed, the legislation of 1966 itself was envisaged by the Congress only as a first step, and we recognize that no report, no program, can be valid for all time. But we earnestly hope that the work of this Commission will lead to constructive action and a major advance for our Nation and the sea.



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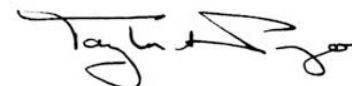
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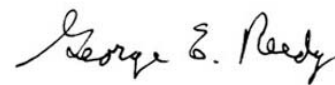
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