

Testimony by
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Mr. Chairman and members of the Committee: Thank you for the opportunity to testify before you today concerning the future of NOAA and U.S. ocean policy. I am Andrew Rosenberg, Professor of Natural Resources in the Institute for the Study of Earth, Oceans and Space at the University of New Hampshire and a member of the U.S. Commission on Ocean Policy. I was formerly the Deputy Assistant Administrator for Fisheries at NOAA, a Regional Administrator for NOAA Fisheries, and a scientist working at NOAA's Northeast Fisheries Science Center.

The Ocean's Act of 2000 formed the U.S. Commission on Ocean Policy and directed us to "make recommendations for coordinated and comprehensive national ocean policy..." The Act set out eight specific objectives for this policy paraphrased here:

1. protection of life and property;
2. responsible stewardship of ocean and coastal resources;
3. protection of the marine environment;
4. enhancement of marine-related commerce, resolution of conflicts among diverse users of the marine environment and engagement of the private sector in developing approaches to the responsible use of marine resources;
5. expansion of knowledge of the marine environment and the advancement of education in fields related to the ocean and coasts;
6. development and improvement in technological capability for ocean related activities;
7. cooperation among all government agencies to ensure coherent regulations, appropriate use of funding, efficient operation of federal agencies, and enhancement of partnerships with state and local governments; and
8. leadership by the United States in ocean and coastal activities.

I believe the Commission's recommendations truly meet the spirit and intent of the Oceans Act. Further, I believe that we must immediately begin to make changes in U.S. ocean policy to reverse an alarming, widespread degradation in the health of the oceans and coasts, vital living marine resources, and coastal communities. While this may sound dramatic, I believe that our ocean environment is at risk and a change of course is needed to reduce that risk.

I have been asked to comment on H.R. 50, "The National Oceanic and Atmospheric Administration Act." As I understand it, this bill is intended to serve as an "organic" act to formally establish the agency by statute as recommended by the Ocean Policy Commission. In my view, such an organic act for NOAA should do more than simply codify the existing structure. Rather it should set a strong direction for U.S. ocean policy, establish NOAA's position as the Nation's lead ocean agency, and motivate restructuring and refocusing of NOAA to enable it to meet the challenges ahead. H.R. 50 as currently drafted, begins this work of focusing the agency, but it doesn't fully address the critical and urgent need to enable the agency to take on the major challenge of ecosystem-based management of coastal and ocean resources. NOAA must improve its capabilities to perform cutting edge coastal and ocean research, develop science advice for management of marine systems and to develop and implement more effective management of the Nation's living marine resources, all on an ecosystem basis.

The U.S. Commission on Ocean Policy recommended a set of guiding principles for national ocean policy. In particular, I would like to highlight: stewardship, resources are held in the public trust for all Americans; ecosystem-based management, understanding and mitigating the cumulative impacts of human activities on the ecosystem as a whole; adaptive management, continuously re-evaluating management as new information becomes available and making adjustments as needed to meet the goals; understandable, clear rules, making the rules that govern various activities coherent for the public; accountability, to ensure that government and the public do what is needed to conserve marine ecosystems; and international responsibility, working cooperatively on ocean issues and meeting our responsibilities for global ocean policy. Using these and the other principles an overarching ocean policy can be articulated for the nation.

A major challenge for governance of ocean activities is changing to a perspective of ecosystem-based management.

Ecosystem-based management means managing human activities within a large marine ecosystem in concert, rather than separately, and considering the cumulative impacts of those activities on the functioning of the ecosystem as a whole. The perspective is that the natural system sets the bounds for management, rather than political boundaries. This is because within an ecosystem, effects on one component can logically be expected to impact other components. Therefore, as we seek to manage across the full range of human activities and mitigate their impacts on the natural environment, we need to consider the interactions between different management actions. For example, coastal development interacts with pollution abatement programs and affects the productivity of the coastal ocean in salt marshes and nearshore areas. In other words, fisheries are affected by more than just fishing and pollution is affected by more than just controlling the amount of discharge. Because humans are an integral part of the ecosystem, social and economic impacts are part of the ecosystem-based management perspective.

Ecosystem-based management does not mean abandoning management activities now underway. Fishing still needs to be managed to prevent overfishing and restore overfished resources for example. But the management of the fishery should be linked to the management of other sectors to provide a more coherent set of policies. The focus for ecosystem-based management should be to maintain the function of coastal and marine ecosystems including both their goods and services. We want to maintain the ability to harvest fish as goods from the ecosystem, but we want to ensure the ecosystem services provided by overall productivity and ocean health isn't undermined. In other words, we want to enjoy a healthy ocean for many other reasons than just for fishing.

Ecosystem-based management is not some theoretical construct. It is common sense. It means looking at all the parts of the machine to understand how they can work together. The goal is a more effective management system that does a better job of protecting the oceans from unwanted changes and further degradation. In order to have a more connected and coherent system of management, the science must be connected, the statutory mandates need to be connected and the management entities need to be connected.

NOAA needs to lead this effort with a structure and operation that reflects these basic principles of connectivity and coherence for ecosystem-based management. Yet the Commission found that federal level coordination and leadership is fragmented at best and inconsistent in too many cases. In my opinion, agencies are working hard to meet their mandates. I had the privilege of working for NOAA for ten years. The NOAA personnel are talented and dedicated but they don't have all the tools they need to do the job. Nor do they have an overarching framework to resolve the conflicting mandates that the various statutes and demands bring.

The Commission recommends a stronger NOAA as the lead ocean science and management policy agency for the nation. We recognized that many ocean related activities are going to remain in various agencies across the government with a National Ocean Council –or the President's Council on Ocean Policy-- to coordinate these agencies. NOAA was created in response to the Stratton Commission recommendations and has done an enormous amount for the nation. However, in my view NOAA has remained a collection of agencies rather than a lead ocean agency. In some ways, within NOAA there is a mirror of the problem that we found across the federal "ocean" agencies, that is, program fragmentation and conflicting authorities. A NOAA organic act should more explicitly address reducing program fragmentation by focusing NOAA on its core competencies and mandates: assessment, prediction and operations, ecosystem-based management of ocean and coastal areas and resources, and science, research and education.

The current NOAA line structure reflects the agencies they were created from rather than reflecting the tasks they will need to undertake in the 21 st century. Again, I have high regard for the people and mission of NOAA and in many ways still feel a part of the agency. But I also know it is hard to change the way business is done without a change in structure because working patterns become set. But as new imperatives come forward, such as the implementation of a new integrated ocean observing system, the implementation of an ecosystem-based approach to management, and increasing demands for research and scientific advice, NOAA must be reorganized in order to grow into these programs in stride. To take another example, the Commission recommends as a guiding principle the integration of atmospheric, land and water related science and policy. Unfortunately, the "wet" side of NOAA still struggles to talk to the "dry" side of NOAA.

Restructuring an organization can be a tricky process to say the least. There is still , however , an urgent need for the overall agency to act as a corporate whole. Several principles must be kept in mind. NOAA must remain a science-based agency as one of its core attributes. Prediction and monitoring functions for weather, climate and ocean observations, or the management functions for ocean and coastal areas and resources including sanctuaries, fisheries, aquaculture or habitat protection rely on the science and research enterprise of NOAA and its external partners. There has been much discussion of separating the research in NOAA from management, regulation and operations. As a former NOAA scientist and a former NOAA Fisheries Regional Administrator and serving on the recently completed NOAA Research Review Team, I strongly believe that research and the provision of the science advice for management and operations must remain together. Separating out research from the advisory functions will leave the other parts of NOAA without the best scientific basis for decision-making. The science advisory function is a fundamental job for the best scientists in the

agency as part of the science and research enterprise. If the science and research enterprise were to be structurally separate from management and operations, the linkage between these lines would need to be strong enough to ensure science advice of the highest quality is available to respond to management and operational needs on a timely basis. To put it bluntly, researchers can not refuse a call for science advice because they are more interested in something else. If this linkage can not be reliably made then the science and research enterprises must remain within the operational lines. H.R. 50 creates a new position of Deputy Assistant Secretary for Science, Technology, Education and Outreach, similar to the recommendation of the NOAA Research Review Team, but at a lower level within the organization. Will this position have the responsibility of overseeing the development of science advice for management, or only of research? The Act should clearly spell out the importance and the accountability for both research and scientific advice.

The management programs of NOAA need to be more clearly aligned as well. Fisheries, protected species, habitat, coastal zones, sanctuaries, estuarine research reserves, restoration programs and so on are all addressing parts of an interconnected ecosystem, but are based in separate programs in two different line offices. There needs to be true program connectivity with shared planning and shared mandates. Accountability needs to be to NOAA, rather than each individual program. H.R. 50 needs to establish the structure and accountability for the policy and management side of the agency as well as science, operations and forecasting. I know from first-hand experience that policy and regulation is not the most popular face of NOAA. But, it is a critical function for the agency and for the Nation and needs to be in the forefront of NOAA's leadership efforts.

An organic act for NOAA should do four things; establish the agency as the nation's lead ocean agency by statute, set clear direction for the agency using the guiding principles of the U.S. Commission on Ocean Policy report, motivate restructuring along functional rather than historical lines, and set leadership and accountability for the major mission elements. H.R. 50 is a good beginning but needs to fully include all of these attributes to place NOAA on a solid footing for the challenges ahead.

Finally, I would like to briefly note a new initiative that I am participating in. The chairmen of the two ocean's commissions, Admiral James Watkins and the Honorable Leon Panetta, have formed an ad hoc task force on ocean policy with the participation of members of both commissions and other leaders in the ocean community. The objective of the taskforce is not to create a new formal institution, nor alter the recommendations made by either commission. Rather, we intend on focusing the ocean community's attention and resources on key issues and opportunities for engagement with decision-makers. This will include topics such as ocean policy and governance reform, reauthorization of legislation, accession to the U.N. Law of the Sea convention as well as resource and funding issues. I look forward to working with the task force in the coming months.

Mr. Chairman and members of the Subcommittee, thank you for the opportunity to testify today. I would be pleased to discuss these and other matters with you further at your discretion.