

The U.S. Commission on Ocean Policy Why You Should Care, and What You Can Do

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The United States Congress formed the Stratton Commission in 1966. In January 1969 the Commission released the seminal document, *Our Nation and the Sea*¹. John Knauss was on that commission, and wrote an interesting historical account of it². The report contained 126 recommendations. NOAA was formed as a result, but without the power, stature, and breadth that had been recommended³. In all respects, the Stratton Commission greatly affected the field of oceanography, not just in the United States.

In the intervening thirty-five years, growth in complexity of government, increases in scientific knowledge, and clear threats to our ocean and coastal re-

sources have prodded Congress to form the current U.S. Commission on Ocean Policy⁴, chaired by retired Navy Admiral James D. Watkins. ADM Watkins has had an impressive career, including Chief of Naval Operations⁵, Secretary of Energy, Chair of President Reagan's AIDS Commission, and the first President of the Consortium for Oceanographic Research and Education (CORE)⁶. He is currently Chair of the U.S. Commission on Ocean Policy (USCOP). The stature of ADM Watkins undoubtedly was inspiring to his fellow Commissioners—someone who could devise a viable plan and who knew how to get it implemented. As summed up by Vice-Admiral Paul Gaffney (USN,

retired), Commission member and now President of Monmouth University, “Watkins knows how to move the ball downfield.”

THE PROCESS

The Oceans Act of 2000, Public Law 106-256, formed the USCOP, which began work in September 2001. Comprising 16 commissioners, 26 science advisors, 35 staff, and \$8.5M, USCOP has held 16 public meetings, 18 site visits all over the country, and heard testimony from hundreds of people. Professional writers and technical editors were engaged to help articulate its findings, concerns, and recommendations.

¹<http://www.lib.noaa.gov/edocs/stratton/title.html>

²http://www.nos.noaa.gov/websites/retiredsites/natdia_pdf/origins_sc.pdf

³An interesting sidelight is the story that NOAA was supposed to be placed into the Department of the Interior when it was created with an Executive Order, but President Nixon got mad at the last minute with Wally Hickel, the Secretary of Interior, because of Hickel's stand on the Vietnam war, and in his Order creating NOAA put it into Commerce instead.

⁴<http://oceancommission.gov>

⁵One result of Watkins' tenure as CNO was the release of Tom Clancy's *The Hunt for Red October*, which had been given in manuscript form to the Navy by the publisher to review for possible violation of security classification standards at the time. Watkins told the publisher that the story was mostly science fiction, but not entirely. However the Soviets would not know which was which, and it would “scare the pants off of them” (personal communication, 2004).

⁶As President of CORE, he was instrumental in getting the legislation through that formed the National Oceanographic Partnership Program. His motivation was a 1992 report from the NAS/NRC Ocean Studies Board, *Oceanography in the Next Decade*.

The Commission issued a Preliminary Report⁷ on April 20, 2004 for public comment and for comment by the Governors of the 50 states. The Commission will incorporate those comments and deliver a Final Report (scheduled tentatively for August as of this writing) to the President and Congress, as directed in the enabling Act.

The President has 90 days to respond, under law:

“Within 90 days after receiving ... the report and recommendations of the Commission ... the President shall submit to Congress a statement of proposals to implement or respond to the Commission’s recommendations for a coordinated, comprehensive, and long-range national policy for the responsible use and stewardship of ocean and coastal resources for the benefit of the United States.”

Federal agencies have prepared reviews of the Preliminary Report and submitted them to an Interagency Ocean Policy Group⁸ (IOPG) formed under the Council on Environmental Quality (CEQ), which sits in the Executive Of-

Note from the authors: *Although we all are employees of government, private, or academic institutions, and are all officers or past officers of our major ocean professional societies, we are writing this from our positions as senior members of the community of scientists and engineers in the United States. Our views should not be read as statements from our employers or our societies. Correspondence should be addressed to the Editor, Dr. Ellen Kappel, at ekappel@geo-prose.com.*

⁷<http://oceancommission.gov/documents/prelimreport/welcome.html>

⁸<http://ocean.ceq.gov>

Why You Should Care

Here is our **List of Ten Reasons** (not in priority order) why you should read the report and consider some personal actions to work toward seeing it implemented:

- Enacting specific recommendations in the report could affect your research funding, scientific infrastructure, quality and quantity of students, and data availability.
- You will need to be familiar with the recommendations when administrators or professional societies seek your input.
- Sharing insight from the report with your students on critical directions in research could help position them as oceanographers of the future.
- Failure to take this report seriously might mean that your children will not have fish to eat, or beaches to enjoy.
- Your security—military and economic—might be affected if the report’s recommendations are ignored.
- Your quality of life, and that of the entire planet, will be impacted if we do not embrace wise use of the ocean resources as advocated in the report.
- New partnerships will likely become available for those conversant in the directions set by the report.
- Your own organization and shareholders might benefit financially through grants or contracts let to implement some of the recommendations in the report.
- Your university might want to start a curriculum addressing some of the themes advocated by the report, such as “ecosystem-based management of resources.”
- Tenure committees might begin to look at more than the quantity of pure research publications; “impact” may be increasingly defined as the effect on more than just the science community.

fice of the President. The reviews will be modified when the Final Report is available. The CEQ will be the “action office” for the President, working through its IOPG. The membership of the IOPG is provided by federal agencies⁹, at (approximately) the level of Deputy Assistant Secretary or equivalent. From the National Science Foundation (NSF), for example, the IOPG member is Jim Yoder; from the Department of Defense it is Don Schregardus, the Deputy Assistant Secretary (for Environment) of the Navy.

THE PRELIMINARY REPORT

The Preliminary Report contains approximately 500 pages and has 192 recommendations. It focuses on nine topics, which are divided into “Parts,” and supplemented by several appendices.

Parts

- Part I—Our Oceans: A National Asset (Chapters 1-3)
- Part II—Blueprint for Change: A New National Policy Framework (Chapters 4-7)
- Part III—Ocean Stewardship: The Importance of Education and Public Awareness (Chapter 8)
- Part IV—Living on the Edge: Economic Growth and Conservation Along the Coast (Chapters 9-13)
- Part V—Clear Waters Ahead: Coastal and Ocean Water Quality (Chapters 14-18)
- Part VI—Ocean Value and Vitality: Enhancing the Use and Protection of Ocean Resources (Chapters 19-24)
- Part VII—Science-Based Decisions:

Advancing our Understanding of the Oceans (Chapters 25-28)

- Part VIII—The Global Ocean: U.S. Participation in International Policy (Chapter 29)
- Part IX—Moving Ahead: Implementing a New National Ocean Policy (Chapter 30)

Themes

The Report develops three major themes:

1. “creating a new national ocean policy framework to improve decision-making”
2. “strengthening science and generating high-quality, accessible information to inform decision makers”
3. “enhancing ocean education to instill future leaders and informed citizens with a stewardship ethic”

Theme 1. Discussed under Theme 1 are the creation of a high-level National Ocean Council in the Executive Office of the President, chaired by an Assistant to the President; the strengthening of the federal ocean agency structure, especially NOAA; and enhanced regional coordination among sectors and across issues.

Theme 2. Under Theme 2, details are given as:

- “Improve scientific understanding of the ocean and coastal environment and ensure effective science-based measures to use, safeguard, and restore ocean and coastal resources”
- “Enhance the nation’s ability to observe, monitor, and forecast ocean and coastal conditions to better under-

stand and respond to the interactions among oceanic, atmospheric, and terrestrial processes”

Theme 3. Under Theme 3, details are:

- “Improve decision makers’ understanding of the ocean”
- “Cultivate a broad public stewardship ethic”
- “Prepare a new generation of leaders on ocean issues”

International Issues

Chapter 29 of the Report dwells on international issues, especially the United Nations Convention on the Law of the Sea, “the preeminent legal framework for addressing international ocean issues.”

The Report recommends:

“The best way to protect and advance our maritime interests is by continuing to actively engage in international policy-making, global scientific and observation initiatives, and programs to build ocean management capacity in developing countries. Action: The Commission recommends that the United States accede to the United Nations Convention on the Law of the Sea, which is the primary legal framework for addressing international ocean issues.”

Implementation

Implementing the 192 recommendations will require substantial financial resources. The Commission clearly expects new funds to be found, and suggests a mechanism to do this in Chapter 30. The Report does not identify programs or activities that should be cut. They comment:

⁹Department of Agriculture, Department of Commerce, Department of Defense, Department of Energy, Environmental Protection Agency, Department of Homeland Security, Department of the Interior, Marine Mammal Commission, National Aeronautics and Space Administration, National Science Foundation, Department of State, and Department of Transportation

- “To date, there has been a significant under-investment in our marine assets”
- “Meaningful improvement will require meaningful investment, but the payoff will be sizable for the U.S. economy, human health, the environment, our quality of life, and security”

The Commission estimates that the cost is \$1.3B in the first year of effort, building to \$3.2B in later years, to carry out the recommendations in the Preliminary Report. The Final Report will refine these estimates and provide many more details; the numbers are somewhat larger (\$1.5B and \$3.9B, respectively) in the Final Report.

MAJOR RECOMMENDATIONS OF THE PRELIMINARY REPORT

The Report recommends 12 critical actions:

1. Establish a National Ocean Council, chaired by an Assistant to the President, and create a Presidential Council of Advisors on Ocean Policy in the Executive Office of the President.
2. Strengthen NOAA and improve the federal agency structure.
3. Develop a flexible and voluntary process for creating regional ocean councils, facilitated and supported by the National Ocean Council.
4. **Double the nation’s investment in ocean research.**
5. **Implement the national Integrated Ocean Observing System.**
6. **Increase attention to ocean education through coordinated and effective formal and informal programs.**
7. Strengthen the link between coastal and watershed management.
8. Create a coordinated management

Late-Breaking News

The full-text version of the Preliminary Report has been downloaded from the USCOP web site more than 177,000 times; public interest is obviously very high. The Commission provided a preview of the Final Report on July 22 at its final public meeting. Entitled “An Ocean Blueprint for the 21st Century,” it is the same fundamental material and structure as the Preliminary Report, but has many technical clarifications, about 19 more recommendations, additional background material, more explicitly includes the Great Lakes and U.S. territories as part of the nation’s ocean domain, and more explicitly includes the states and tribes as essential parts of the proposed regional governance structures. The issue of climate change and its impact on the oceans and coasts is now explicit in the Final Report, and the discussions about funding required for everything have been consolidated into an expanded Chapter 30. When the Final Report is completed later this summer, it will be available on the OceanCommission.gov web site.

- regime for federal waters.
9. Create measurable water pollution reduction goals, particularly for non-point sources, and strengthen incentives, technical assistance, and other management tools to reach those goals.
10. Reform fisheries management by separating assessment and allocation, improving the Regional Fishery Management Council system, and exploring the use of dedicated access privileges.
11. Accede to the United Nations Convention on the Law of the Sea.
12. Establish an Ocean Policy Trust Fund

based on revenue from offshore oil and gas development and other new and emerging offshore uses to pay for implementing the recommendations. For research scientists in academia, the most compelling actions are 4, 5, and 6, which we have highlighted above. In some academic circles there is interest in actions 7-10, but perhaps mostly in terms of providing the science and knowledge base to inform those actions and decisions.

There is growing interest among industries regarding action 5, both from the prospect of the commerce involved in the design, implementation, and op-

What You Can Do

Here is our list of *Three Things You Can Do* if you wish to take some action:

- Tell your students to look at the report. Just as the Stratton Commission report greatly affected our generation of ocean scientists and technologists, the “Watkins Commission” report will likely affect their generation.
- Tell your Congressional representatives what you agree with and want to see happen. Urge them to put into law and provide funding for those things you wish to see. Spend your time promoting aspects of the report, not tearing down the things you don’t like.
- Seek research directions that inform those issues that are on the weakest foundation of understanding. Our policy-makers are going to make decisions, whether we understand all the issues or not; it is in our best interest that those decisions are based on knowledge and wisdom. Your guess is probably better than theirs. As Lord Rutherford said, “It is essential for men of science to take an interest in the administration of their own affairs or else the professional civil servant will step in—and then the Lord help you.”

eration of such a massive new infrastructure, as well as for the products that may result and their potential value to commercial enterprises¹⁰.

Critical actions 1-3 and 11-12 may seem like bureaucratic activities outside the realm of an academic, or even a general oceanographer working anywhere. In reality, those five seemingly bureau-

cratic actions could have far-reaching and more substantial impact on academic research and researchers than even actions 4-6, for they:

- set up high-level responsibility for the ocean in the White House (action 1), which allows more visibility for and consideration of ocean issues, including funding;

- increase efficiency and strength in the federal agencies active in the ocean, including the funding agencies (action 2);
- develop a way to articulate and argue regional concerns and bring in non-science interests to support science (action 3);
- give our ships continued access to the global ocean (action 11); and,
- suggest a way to pay for it all (action 12)!

We also see strong potential impact on academic ocean science from those practical actions listed (actions 7-10). All four practical actions require decision-making and policies that depend upon good science; one clear theme of the entire Report is: *Good ocean management requires good ocean data and understanding.*

Underlying these 12 critical actions and the foundation of the Report’s “Vision for the Future” is the pervasive idea of ecosystem-based management; we love the term, but we do not really understand the science behind it, nor do we believe that anyone does at present. We suspect that the next generation of ocean scientists—even if adequately funded—will be struggling to develop the requisite understanding so that ecosystem-based management is more than just a cool concept.

Finally, a comment on critical actions 4-6. Does anyone (in our community) really object to doubling the research budget, implementing an Integrated Ocean Observing System, and greatly improving ocean education? But there are other communities, with other agen-

¹⁰See: “Industry’s Role in the Implementation of an Integrated Ocean Observing Capability,” Proceedings of the MTS/IEEE Oceans ’02 Conference, Biloxi, MS. October 28 – 31, 2002, Clark, A.M.

das, all seeking federal support, so we must make our case for these “obvious” topics.

ISSUES REGARDING RESEARCH, EDUCATION, AND OBSERVING

Research, education, and observing discussions and recommendations are mainly contained in Chapters 8 (education), and 25-28 (research, observing, infrastructure, data management), although the issues permeate much of the Report. In short, the Report says we need more of each. The Report recognizes that this will cost a lot of money, and proposes doubling the research budget. Independent estimates suggest that doubling the budget is not enough, but it is a good start. Education is the “most bang per buck spent,” in the long run, but is probably the lowest priority item at a federal level; other than NSF, none of the ocean agencies have education as a priority mission, or even perhaps as a stated mission.

The National Oceanographic Partnership Program¹¹ (NOPP) is placing “education and outreach” as second priority for itself (the Integrated Ocean Observing System is first priority). This is an attempt to raise the profile of “K through Gray” formal and informal education among the agencies. NOPP’s strategic directions on education and outreach are nearly congruent with the Chapter 8 recommendations and discussions.

Chapters 25-28 are also congruent to the strategic directions in NOPP, so there is some optimism that we will see actions that carry out Commission recommen-

dations because we have an interagency structure already positioned to do it in these topic areas.

OBSTACLES

Of course, there are obstacles to the pursuit of most of the recommendations in the Preliminary Report. Most apparent are existing governmental structures, money, and culture.

The Report discusses governance extensively; we see pros and cons in the related recommendations. For example, strengthening NOAA is a super idea, but strengthening it at the expense of other agencies likely lessens the robustness of our federal system of overlapping interests and funding. In that diversity we find redundancy, gaps, and inefficiencies, but we also find checks and balances and resistance to the inevitable perturbations of appropriations, personnel, and missions. We urge caution as the tinkers begin to tinker with an imperfect system; changes may not bring improvements, so wise and careful changes are the objective. The Commission Report exposes the issues; now we need a national dialog on the appropriate changes.

Money is always a problem, but especially now. The federal budget is not full of excess funds, and the federal budget process is increasingly Byzantine. We are certain that the answer is not in specific earmarks and plus-ups by Congress to satisfy whims and hungers in their districts, but we also recognize that some of these are inevitable. We hope that they represent high-quality projects and wish there were some way that such additional

moneys could be competed for the greater benefit—the “rising tide lifts all boats” approach. As a minimum, such “special-interest” items for observing systems should fit into the national framework being developed by Ocean.US so there is hope for it all to come together in the future.

The culture of organizations and communities underlies much of what we do, how we do it, and often whether we do it at all. For example, the historically separate cultures of research and operations are repeatedly discussed in the USCOP Report, for they bring both inhibition and opportunity to many of our future ocean efforts. Max Planck observed, “A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it.” Alan Lindsay Mackay observed, “How can we have any new ideas or fresh outlooks when 90 percent of all the scientists who have ever lived have still not died?” We see some changing attitudes in oceanography (for example, decreasing proprietary data rights, growing team efforts, and growing use of operational data for research purposes) that are probably essential to the ocean future envisioned by the Commission. ■

¹¹<http://nopp.org/>