

New Directions for US Ocean and Coastal Resource Management:

A Report on Ongoing Work
Of The
US Commission on Ocean Policy

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Commissioner

The Stratton Commission

"Our Nation and the Sea"

1969

Oceans Act of 2000 – Purpose

To establish a Commission to make recommendations for a coordinated and comprehensive ocean policy that will promote:

- Protection of life & property
- Stewardship of ocean & coastal resources
- Protection of marine environment & prevention of marine pollution
- Enhancement of maritime commerce
- Expansion of human knowledge of the marine environment
- Investment in technologies to promote energy & food security
- Close cooperation among government agencies
- US leadership in ocean and coastal activities

Oceans Act of 2000

What is the job of the Commission?

- The Commission is to give equal consideration to environmental, technical feasibility, economic, and scientific factors. In addition, the recommendations may not be specific to the lands or waters within a single state.

Members US Commission On Ocean Policy

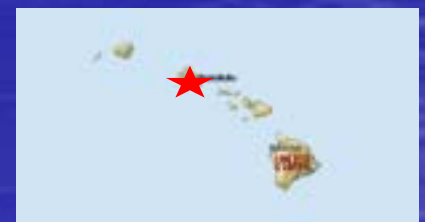
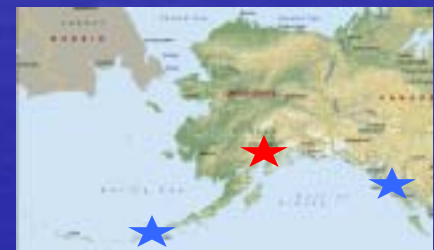


• Milestones as of July 2003

- Held 15 public meetings, including 9 regional meetings
- Conducted 17 site visits around the nation
- Heard from 440 presenters - invited and public
- Made transition to deliberative stage in November 2002

★ Regional Meetings

★ Site Visits



Observations, Challenges, Opportunities

- Our nation's capability to manage our coasts is clearly inadequate.
- Depletion of fish stocks continue.
- Ocean pollution is a growing problem.
- Water-borne commerce is essential to the Nation's economic well-being.
- Oceans and climate are inextricably linked but not nearly well enough understood.

Observations, Challenges, Opportunities

- Abrupt climate change could profoundly alter the landscape of our country in perhaps a decade or less.
- The Arctic Ocean is one of the least understood of all the world's oceans.
- Particularly important features – such as coral reefs, unique coastal and estuarine habitats, areas of high biodiversity – may require special protection.

Observations, Challenges, Opportunities

- Jurisdictional and legal confusion and ambiguity are huge problems.
- The lives of all Americans – landlocked as well as coastal– are inextricably affected by the ocean. And all Americans affect the ocean, wherever they live.

Topics Considered by USCOP

- Aquaculture
- Biodiversity
- Coastal Management
- Coral Resources
- Data Management
- Dredging/Sediments
- Ecosystem-Based Management
- Education
- Enforcement
- Exploration
- Federal Agency Reorganization
- Fisheries
- Governance
- Habitat
- Infrastructure

USCOP Topics Continued

- Integrated Observing System
- International Leadership
- Invasive Species
- Investment
- Marine Mammals
- Marine Protected Areas
- Monitoring
- Oceans & Human Health
- Offshore Uses & Opportunities
- Policy Framework
- Pollution
- Research
- Technology
- Watersheds

US COMMISSION ON OCEAN POLICY: Website

www.oceancommission.gov

Governance

Options for an Ocean Policy Framework

USCOP Policy Option:

- Immediate creation, by Executive Order or Congressional action, of a National Ocean Policy Framework, composed of:

USCOP Policy Option:

An Executive Office of Ocean Policy which would be located in the White House and headed by a high-level Assistant to the President

USCOP Policy Option

A National Ocean Council composed of cabinet secretaries of ocean agencies and directors of independent ocean agencies and chaired by the Assistant to the President for Ocean Policy

USCOP Policy Option

A Council of Advisors (a FACA advisory body) made up of coastal governors; other appropriate state, local, and tribal government officials; and representatives from the private sector, NGOs, the research community, and watershed organizations

USCOP Policy Option

The Executive Office and Council - working closely with state, local, and tribal government representatives, as well as the private sector, research community, non-governmental organizations, and watershed organizations – would help build support for passage of a National Ocean Policy Act.

Possible Functions of a National Ocean Council

The following are illustrative of the types of functions that may be considered for a National Ocean Council:

- Coordinate Federal agency activities regarding the oceans
- Implement and continuously improve Commission's recommendations and develop new policy as needs arise
- Guide federal agency reorganization or consolidation based on Commission recommendations.

Possible NOC Functions

- Oversee national program to assess the status of ecosystems to provide critical goods and services.
- Periodically report on the state of the nation's oceans and coasts and of their uses and progress in the implementation of the nation's ocean policy.
- Provide, in consultation with the Department of State, leadership in international marine affairs.

Possible NOC Functions

- Develop and implement a national ocean research plan with input from researchers and policy makers through an advisory committee on ocean research.
- Develop and implement a national ocean data and information management system.
- Create and oversee the work of task groups formed to address specific ocean and coastal problems requiring concerted, high-level attention within specified timeframes.
- Assist in development of the next generation coastal zone management program.

Possible NOC Functions

- Consider development of Regional Ocean Councils as effective means to address the goal of an ecosystem-based approach to ocean resource management.
- ROCs might address issues such as state/regional coordination, pollution reduction, economic development, research priorities, preparation of regional ecosystem management plans and the implementation of national goals.

Possible NOC Functions

- If implemented, ROCs would be developed with substantial participation by state, territorial, local, tribal and other interested entities (e.g. non-governmental and business organizations).
- The Commission does not envision that Regional Ocean Councils would supplant existing legal authorities, such as those of Regional Fishery Management Councils or elements of state and local governments.

USCOP Policy Option: Regional Ocean and Coastal Governance

- As a first step to improve regional governance, federal agencies should coordinate their functions and decision making processes at the regional level.
- This could be best achieved by the relevant federal agencies working together to create common agency regions.

USCOP Policy Option: Federal Agency Reorganization

- The Commission believes that some consolidation/ reorganization at the Federal level is warranted.
- The Commission is considering numerous proposals that have been put forth by Commissioners, testimony before the Commission and other experts.
- The Commission believes it will be an ongoing function of the NOC to look for continuing consolidation opportunities of federal agencies.

USCOP Policy Option: Federal Agency Reorganization

- The Commission and the NOC should consider the need to:
 - Consolidate functions not just structures
 - Bring together pieces of a common problem
 - Look for leverage such that the whole is greater than the sum of its parts
 - Achieve efficiency in operations and management
 - Link the systems related to atmosphere, earth and ocean for policy and science
 - Enhance the linkage between science and policy programs

USCOP Policy Option: Federal Agency Reorganization

- Functions that should be considered for consolidation:
 - Habitat protection and restoration
 - Protected species programs
 - Nonpoint source pollution
 - Fishery management
 - Watershed management
 - Data management systems
 - Mission-oriented research
 - Mapping
 - Education
 - International Leadership and operations
 - Enforcement

USCOP GUIDING PRINCIPLES RELATED TO SCIENCE

- Decision-making processes should be based on an understanding of natural and social processes and influences.
- To the extent possible, marine resource management should be ecosystems-based.
- A precautionary approach should be used in developing and implementing management plans.

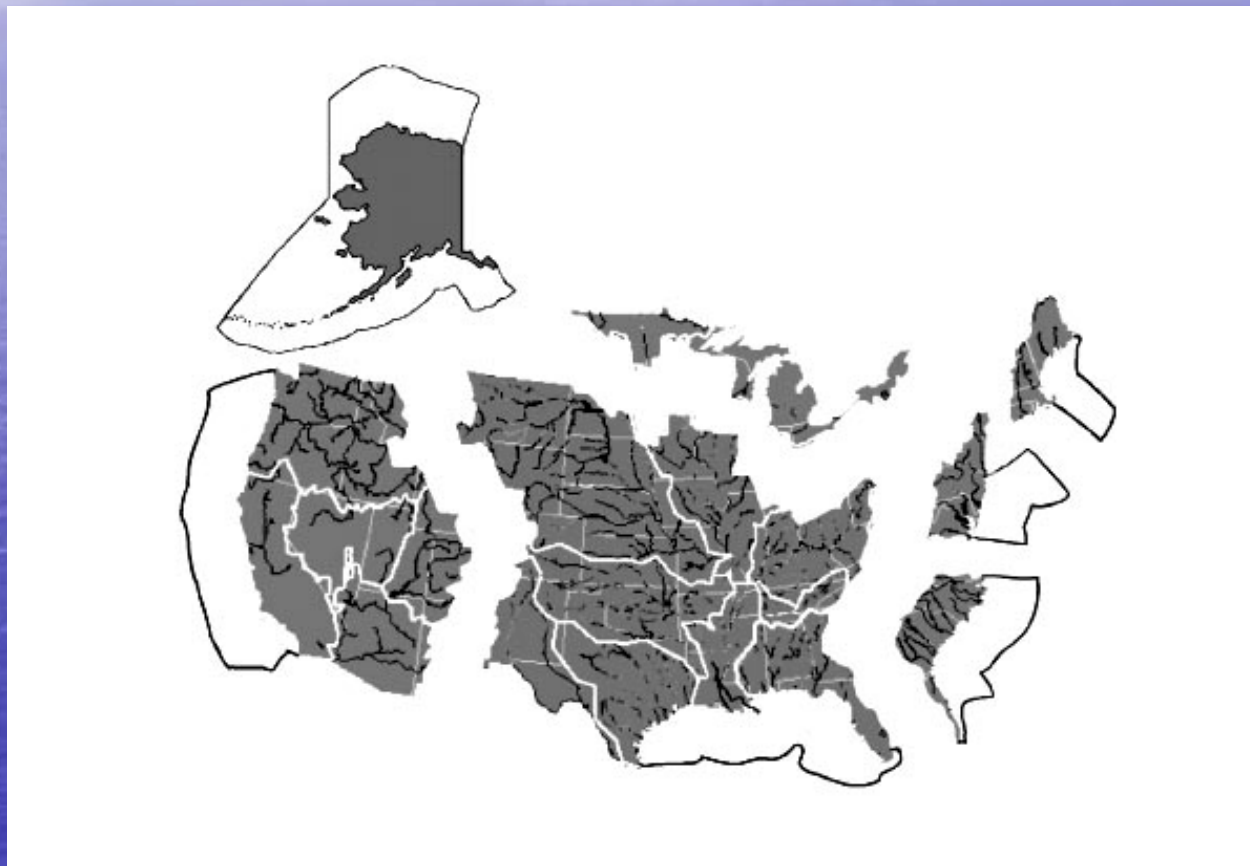
Ecosystem-Based Management

- The USCOP's proposed definition of "ecosystem-based management" is: "managing human activities and potential impacts on species or resources within the context of their interactions with other species and the physical environment. The management framework should be multi-species and cross physical boundaries."

Ecosystem-Based Management

- The nation's marine policy-making processes should include a regional ecosystem framework.
 - Delineated on the ocean sides by the boundaries of the current Regional Fishery Management Councils
 - Delineated on the land side by boundaries of the large watersheds that drain into the marine waters under the jurisdiction of each RFMC
 - A new Great Lakes eco-region would be created

Possible Eco-Region Boundaries



USCOP Policy Option: Proposed Definition of Precautionary Approach

- The Precautionary Approach is applying judicious and responsible management practices, based on best available science, proactively rather than reactively, to ensure the sustainability of ecosystems for the benefit of future as well as current generations. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing action to prevent environmental degradation. Scientific assessment, monitoring, the potential for mitigation to reduce environmental risk, and appropriate periodic review of the precautionary restrictions should be part of the management plan.

Status of Ocean Science Funding

- Thirty of 50 US states have ocean or Great Lake coastlines
- ~50% or more of the US population lives within the coastal zone
- One of every 6 US jobs is marine-related
- Yet, only ~3.5% of the Federal budget for basic research is spent on ocean sciences, down from 7% 20+ years ago.

USCOP Policy Options Under Consideration: Research Funding

- The Administration should propose, at a minimum, a doubling of the Federal ocean research budget from today's \$630M to \$1.3B.
- Federal funding for technology should be on a par with the requested increase for ocean research to ensure the Nation has the requisite tools – including the Integrated Coastal and Ocean Observing and Prediction Systems -- to conduct a rigorous program of ocean science.

USCOP Policy Option: Ocean & Coastal Observing & Prediction Systems

- Must be a “whole-earth” system; need to understand ocean-atmosphere-land couplings (e.g., watersheds to ocean)
- Must have strong biological components
- Must incorporate satellite observations
- Must be integrated & coordinated across agencies, country and, to degree possible, internationally

USCOP Policy Option: Ocean & Coastal Observing & Prediction Systems

- Must have sustained, long-term support
- Must have plan to move to operational status
- Must address needs of multi-sector users: marine operations, research, education, monitoring

USCOP Policy Option: Biodiversity

- The US Government should develop a comprehensive program to study marine biodiversity at genetic, species and ecosystem scales
- Beyond mere enumeration, the program should explore the range of causes for declining biodiversity and potential solutions
- Conservation of biodiversity should be a specific consideration of any ecosystem-based management regime

Ocean Exploration



- Systematic search and investigation of the oceans for the purpose of discovery through disciplined diverse observations and recording of the findings
- Delving into 95% of our oceans that has never been seen before
- Using new technologies and applications

USCOP Policy Options Under Consideration: Exploration

- Support the President's Panel on Ocean Exploration and the NRC panel report for the establishment of a robust and long-term effort in global ocean exploration.

USCOP Policy Options Under Consideration: **Exploration**

- An Ocean Exploration program should be bold and innovative to garner a broad consensus on its benefits to the Nation.
- The program should include exploration and mapping of the continental margin and the US EEZ.

USCOP Policy Option: Oceans & Human Health

Federal government should establish an aggressive, fully-funded and coordinated Oceans and Human Health Program that fosters and supports academic-private-sector-government partnerships to:

- Conduct research that leads to understanding of the complex inter-relations, pathways and causal effects of marine pollution, harmful algal blooms, ecosystem degradation and alteration, and human health
- Monitor and assess pollution inputs, ecosystem health and human health impacts

USCOP Policy Options Under Consideration: Oceans & Health

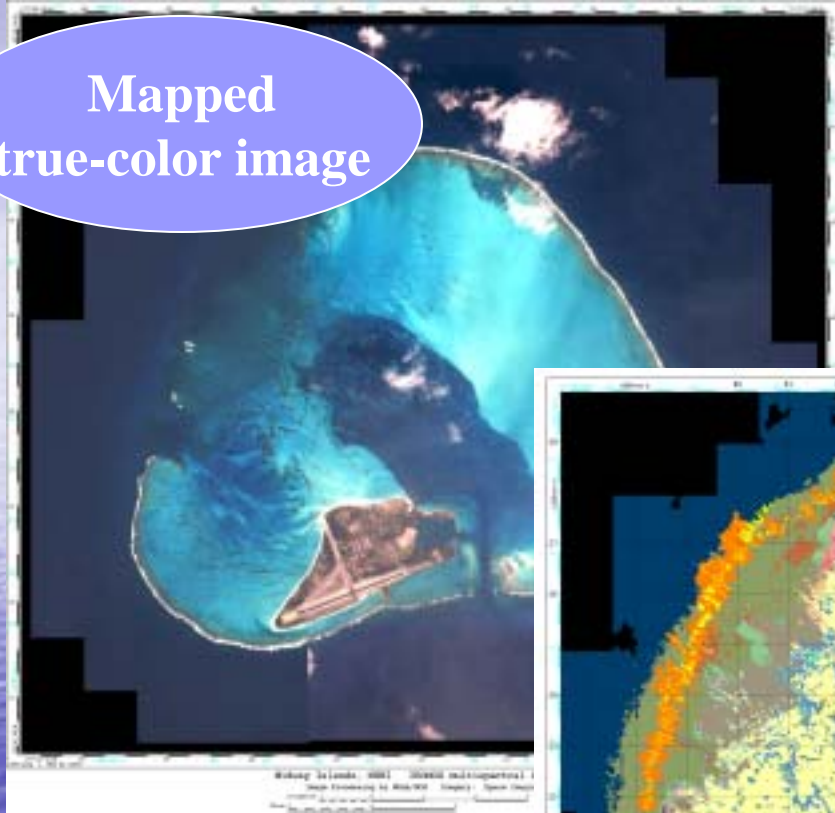
- Develop new technologies for measuring human and environmental/ecological health parameters in the marine environment
- Develop models for predicting and mitigating pollution, harmful algal blooms, and diseases that may affect humans as well as marine organisms
- Establish a marine biotechnology R&D program that fosters private sector investment and sets a clear policy governing biotech activities

USCOP Policy Options Under Consideration: Coral Reefs

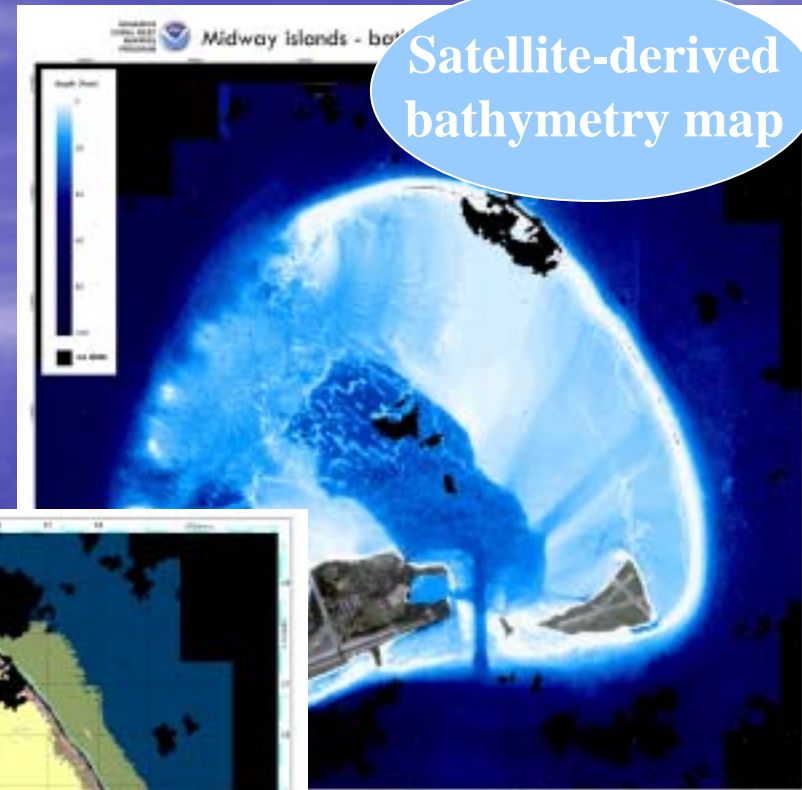
- Retain Coral Reef Task Force (CRTF) and develop national coral reef strategies
- Complete comprehensive map of US coral reefs

Satellite-based benthic habitat map products

Mapped true-color image

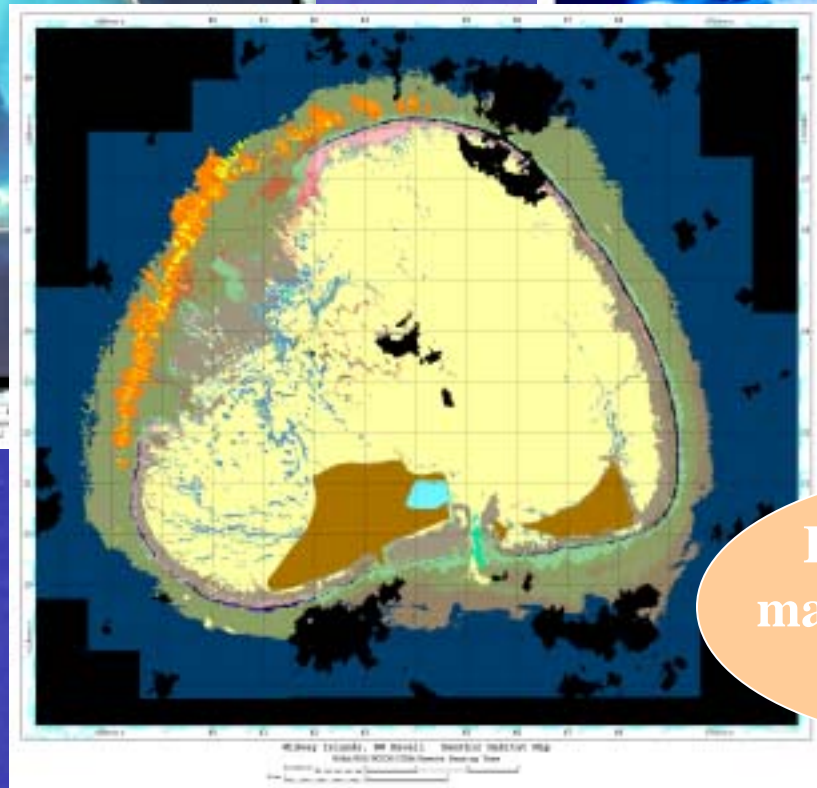


Midway Islands



Satellite-derived bathymetry map

Multiple map products derived from IKONOS satellite imagery



Benthic habitat map - from imagery and field data

USCOP Policy Options Under Consideration: Coral Reefs

- Expand marine sanctuary “damage recovery” provision to designated coral reefs
- Continue active international leadership
 - Offer “debt forgiveness” to foreign nations which demonstrate good stewardship
 - Strive for international standards to limit ornamental capture
 - Use U.S. research strength to gain leadership

USCOP Policy Option: Marine Protected Area Definition

- A Marine Protected Area (MPA) is a specified area of the marine environment that has been set aside for the purpose of conservation of natural or cultural resources.

USCOP Policy Option: Marine Protected Areas

- Congress should establish national standards for MPA development
- National standards should guide national, regional, and local efforts to develop MPAs
- Any national initiative to create an MPA should involve substantial regional and local coordination and participation
- MPA management plans should include scientific or cultural assessment, monitoring plan, and periodic review

MARINE AQUACULTURE

- The US annual trade deficit in seafood is over \$7 billion
- The US annually consumes nearly \$1 billion in foreign-grown aquaculture products
- Quality and safety issues, especially with foreign-grown products must be addressed

Marine Aquaculture: Problems

- Lack of consistent policy and regulatory frameworks
- Lack of technical information
- Concerns over environmental impacts

USCOP Policy Options: Marine Aquaculture

- The NOC should incorporate marine aquaculture within an overall plan for mapping, managing, developing and conserving US federal waters.
- The Joint Subcommittee on Aquaculture would be placed under the auspices of the NOC.

USCOP Policy Options: Marine Aquaculture

- National standards and operating procedures should be established to minimize adverse environmental effects of marine aquaculture
- NOAA should be the lead agency for marine aquaculture and should significantly increase its investment in aquaculture R&D, training and technology transfer



Regional Fishery Management Councils (RMFCs)

USCOP Policy Options: Use & Review of Scientific Information in Fisheries Management

- Require RFMCs to form and use Scientific & Statistical Committees (SSCs). Members to be appointed by the NMFS Director from list of qualified experts provided by the RFMC and the National Research Council.
- The SSCs would set Allowable Biological Catch (ABC); the RFMC may lower this level, but may not raise it.
- Require NMFS to develop rigorous peer-review system for stock assessments, assessment methodologies, etc.

Policy Options In International Leadership

- The U.S. needs to increase its commitment to global ocean science, technology, and education; especially its participation in large cooperative projects of critical importance to global environmental health and discovery and in international capacity-building in education, research, exploration, infrastructure, and data-exchange.

Policy Options In International Leadership

- Domestic action alone will be insufficient to address many of the problems facing US living marine resources. In fact, for some issues (sea turtle bycatch, whale ship strikes, marine mammal bycatch, highly migratory species fisheries, invasive species), the primary problem can only be addressed by coordinated international action. This requires international leadership by the US.

US Commission on Ocean Policy

- Stay tuned. There is lots more to come. We are in the report writing stage now, with lots of work left. Anticipate draft report to be sent to Governors in the fall, with final to the President and Congress shortly thereafter.

"All that we do is touched with
ocean."

Richard Purdy Wilbur
Poet Laureate of the United States

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