

Policy Drivers for NOAA International Engagement (Current as of September 1, 2014)¹

The directives and planning documents catalogued in this digest of policy drivers for NOAA's international engagement offer a set of instructions that guide efforts and activities for the accomplishment of various aspects of NOAA's mission and goals. The digest has three subdivisions.

The first subdivision contains documents issued by the President that guide and focus achievement of specific aspects of NOAA's mission or direct the Agency's attention and resources towards the accomplishment of specific administration policy or global commitments. They include Executive Orders, Presidential Decision Directives, and focused Executive Office strategic planning tools.

The second subdivision contains brief descriptions of Department of Commerce and NOAA-wide strategic planning documents. A strategic plan typically touches upon the current state of an organization's efforts and accomplishments and it clarifies the organization's mission. It then sets a course for the future and describes, with some specificity, how the agency intends to achieve its goals. As with the Executive Office documents, the documents within this subdivision also bear on NOAA's international engagements.

The final subdivision contains descriptions of NOAA line office strategic plans which translate legislative mandates and policy directives into a path forward to measurable success. These plans are continually subject to revision, making this digest likewise subject to periodic update. A number of the plans identify a period of years in which the plan is expected to apply, providing an estimate of the time by which revised plan will be necessary. In some instances, the termination date may have already passed. However, those plans continue in effect, and continue to provide the line office with overall mission guidance until superseded by a final version of a revised plan. They are, for that reason, retained as being fully applicable.

Presidential Policy Drivers

- A. [National Historical Preservation Orders](#). The following presidential documents relate to the protection of historic properties and the cultural environment:

¹ Because the Policy Drivers described in this digest are subject to change or modification, and because new policy drivers may be added as warranted, this digest will be reviewed and updated annually.

- 1) [Executive Order 11593, Protection and Enhancement of the Cultural Environment, 36 FR 8921 \(May 13, 1971\)](#). Pursuant to the National Historic Preservation Act of 1966 (NHPA) and other relevant statutes, this Executive Order directs federal agencies (1) to administer the cultural properties under their control in a spirit of stewardship and trusteeship for future generations, (2) to initiate measures necessary to direct their policies, plans and programs in such a way that federally owned sites, structures, and objects of historical, architectural or archaeological significance are preserved, restored and maintained for the inspiration and benefit of the people, and (3), in consultation with the Advisory Council on Historic Preservation (16 U.S.C. 470i), to institute procedures to insure that federal plans and programs contribute to the preservation and enhancement of non-federally owned sites, structures and objects of historical, architectural or archaeological significance.

Following issuance of this Executive Order, Section 110 was added to NHPA. Section 110, as amended in 1992, imposes a broad range of responsibilities on federal agencies. It calls for federal agencies to establish preservation programs that are commensurate with their mission and the effects of their activities on historic properties and that provide for the careful consideration of historic properties. Section 110 also required each federal agency to designate a qualified Federal Preservation Officer (FPO) to coordinate the agency's historic preservation activities.

- 2) [Executive Order 13297, Preserve America, 68 FR 10635 \(March 5, 2003\)](#), directs federal agencies to maximize efforts to integrate the policies, procedures and practices of the NHPA into their program activities in order to efficiently and effectively advance historic preservation objectives in the pursuit of their missions; and it directs the Secretary of Commerce, working with other agencies, to assist states, Indian tribes, and local communities in promoting the use of historic properties for heritage tourism and related economic development in a manner that contributes to the long-term preservation and productive use of those properties.

- B. [Executive Order 12088, Federal Compliance with Pollution Control Standards, 43 FR 47707 \(October 13, 1978\)](#). This Executive Order calls upon the head of each executive agency to ensure that all actions are taken for the prevention, control, and abatement of environmental pollution with respect to federal facilities and activities that are under the control of the agency. Each executive agency shall cooperate and consult with the

Administrator of EPA who shall provide technical advice and conduct such reviews and inspections as may be necessary to monitor compliance and resolve any conflicts regarding any violation. The head of any executive agency that is responsible for the construction or operation of federal facilities outside the United States shall ensure that such construction or operation complies with the environmental pollution control standards of the host country or jurisdiction. This Executive Order was amended by [Executive Order 13148, 65 FR 24604 \(April 26, 2000\)](#), which removed provisions that required each executive agency to prepare and submit to OMB an annual plan for the control of environmental pollution.

- C. [Executive Order 12114, Environmental Effects Abroad of Major Federal Actions, 44 FR 1957 \(January 4, 1979\)](#). This Executive Order directs federal agencies to establish environmental impact review procedures in the following categories of actions:
- Major federal actions significantly affecting the environment of the global commons outside the exclusive jurisdiction of any nation (e.g., the oceans, the atmosphere, the deep seabed, or Antarctica);
 - Major federal actions significantly affecting the environment of a foreign nation not participating with the United States and not otherwise involved in the action;
 - All other major federal actions significantly affecting the environment of a foreign nation, including, but not limited to, those that provide to that nation: (a) a product, emission, or effluent which is prohibited or strictly regulated in the United States because of its toxic effects on the environment; (b) a physical project which is prohibited or strictly regulated in the United States to protect the environment against radioactive substances; and
 - Major federal actions beyond the U.S. EEZ, the U.S. continental shelf, and beyond U.S. territories and possessions which significantly affect natural or ecological resources of global importance designated for protection by the President or under international agreements binding on the United States.

Certain activities having environmental impacts outside the United States require special efforts because of their international environmental significance. These include activities which:

- May threaten natural or ecological resources of global importance or which threaten the survival of any species;
- May have a significant impact on any historic, cultural, or national heritage or resource of global importance; or
- May involve environmental obligations set forth in an international treaty, convention, or agreement to which the United States is a party.

- D. [Executive Order 13084, Consultation and Coordination with Indian Tribal Governments \(May 14, 1998\)](#). As domestic dependent nations, Indian tribes exercise inherent sovereign powers over their members and territory. Federal agencies, in formulating policies significantly affecting Indian tribal governments, shall be guided by principles of respect for tribal self-government and sovereignty. Each agency shall have an effective process to permit tribal governments to provide meaningful and timely input to the development of regulatory policies significantly affecting their communities. Agencies shall review the processes under which tribal governments can apply for waivers of statutory and regulatory requirements and take steps to streamline those processes. On issues relating to tribal self-government, trust resources, or treaty and other rights, each agency should explore the use of consensual mechanism for developing regulations, including negotiated rulemaking.
- E. [Executive Order 13089, Coral Reef Protection, 63 FR 32701 \(June 11, 1998\)](#). This Executive Order instructs all federal agencies whose actions may affect U.S. coral reef ecosystems to utilize their authorities to protect and enhance the conditions of such ecosystems and, to the extent permitted by law, ensure that any actions they authorize, fund, or carry out will not degrade the condition of such ecosystems. The Secretary of State, in cooperation with other members of the Coral Reef Task Force (which includes the NOAA Administrator), must assess the U.S. role in international trade and protection of coral reef species and implement appropriate strategies and action in cooperation with other nations to promote conservation and sustainable use of coral reef resources worldwide.
- F. [Executive Order 13112, Invasive Species, 64 FR 6183 \(February 3, 1999\)](#). This Executive Order gives direction to federal agencies whose actions may affect invasive species. It also created the National Invasive Species Council and the Invasive Species Advisory Committee, which work together with stakeholders, concerned members of the public, and member departments to address invasive species. The Council includes the Secretary of Commerce who serves as Co-Chair. The Council is directed, among other things, to develop recommendations for international cooperation in addressing invasive species. The Advisory Committee is a group of non-federal experts and stakeholders. They assist the Council in formulating a Management Plan for the nation. If recommended measures are not authorized by current law, the Council shall develop and recommend to the President through its Co-Chairs legislative proposals for necessary changes in authority.
- G. [Executive Order 13158, Marine Protected Areas, 65 FR 34909, \(May 26, 2000\)](#). This Executive Order helps protect natural and cultural resources within the marine environment by strengthening the system of marine protected areas (MPAs). Among other mandates, the E.O. directs federal agencies whose authorities provide for the establishment or management of MPAs to take action to enhance or expand

protection of existing MPAs and establish or recommend new MPAs. These initiatives and actions undertaken must be consistent with international law.

- H. [Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds \(January 10, 2001\)](#). The United States has recognized the importance of migratory birds as a shared resource by ratifying international bilateral conventions with Great Britain/Canada, Mexico, Japan, and Russia. This Executive Order directs each federal agency which takes or is likely to take actions affecting migratory bird populations to develop and implement an MOU with the Fish and Wildlife Service which promotes the conservation of migratory bird populations. Among other things, the MOU shall promote bird conservation in international activities and with other countries and international partners, in consultation with the Department of State. The Order calls for the creation of an interagency Council for the Conservation of Migratory Birds to oversee implementation of the Order, to share the latest resource information, to develop an annual report of accomplishments and recommendations, and to foster partnerships. The Council shall include representation, at the bureau director/administrator level from various departments, including the Department of Commerce.

- I. [Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance \(October 5, 2009\)](#). This Executive Order sets sustainability goals for federal agencies and focuses on making improvements in their environmental, energy and economic performance. The Executive Order requires federal agencies to set a 2020 greenhouse gas emissions reduction target within 90 days; increase energy efficiency; reduce fleet petroleum consumption; conserve water; reduce waste; support sustainable communities; and leverage federal purchasing power to promote environmentally-responsible products and technologies. In addition to other roles and responsibilities of agencies with respect to environmental leadership as specified in this order, the agencies shall participate actively in the interagency Climate Change Adaptation Task Force, which is engaged in developing the domestic and international dimensions of a U.S. strategy for adaptation to climate change.

- J. [Executive Order 13547, National Ocean Policy: Stewardship of the Ocean, Our Coasts, and the Great Lakes, 75 FR 43023 \(July 19, 2010\)](#). This Executive Order sets U.S. ocean policy and establishes the National Ocean Council to provide appropriate direction to ensure that executive departments, agencies, and offices are guided by recommended stewardship principles and national priority objectives. U.S. ocean policy includes protecting, maintaining, and restoring the health and biological diversity of ocean, coastal, and Great Lakes ecosystems and resources, supporting sustainable, safe, secure uses of the ocean, and respecting and preserving our Nation's maritime heritage. The Executive Order directs agencies to implement U.S. ocean policy by, among other things, cooperating and exercising leadership at the

international level, pursuing U.S. accession to the Law of the Sea Convention, and supporting ocean stewardship.

- K. [United States Antarctic Policy Directives](#). The following presidential documents relate to the U.S. Antarctic policy and program:
- 1) [National Security Decision Memorandum 71 \(NSDM 71\), United States Antarctic Policy and Program \(July 10, 1970\)](#). This Memorandum reflects the decision of the President that the Antarctic program should be continued at a level that maintains an active and influential U.S. presence in Antarctica and which is responsive to U.S. scientific, economic and political objectives. The Memorandum directs the orderly transfer of the program from the Department of Defense to the National Science Foundation and directs the NSF to continue to fund university research and federal agency programs related to Antarctica and to draw upon the logistic support capabilities of government agencies on a reimbursement or non-reimbursement basis.
 - 2) [National Security Decision Memorandum 318 \(Feb. 25, 1976\)](#) reaffirms NSDM 71 and the importance of maintaining an active and influential U.S. presence in Antarctica and directs the NSF to continue to fund university research and federal agency programs and to draw upon logistic support capabilities of government agencies. The use of logistic support by the DOD, assisted by the Coast Guard, gives the U.S. an important flexibility and reach to operate in that area.
 - 3) [Presidential Memorandum 6646, United States Antarctic Policy and Programs \(Feb. 5, 1982\)](#) also states that the U.S. Antarctic Program shall be maintained at a level that provides an active and influential presence to support the range of U.S. Antarctic interests. That presence shall include the conduct of scientific activities in major disciplines, year-round occupation of the South Pole and two coastal stations, and availability of necessary logistics support. The NSF shall continue to fund university research and federal agency programs and draw upon the logistics support capabilities of government agencies. However, other agencies may fund and undertake directed short-term programs of scientific activity upon the recommendation of the Antarctic Policy Group. Such activities should be coordinated within the framework of NSF support.
 - 4) [Presidential Decision Directive/National Security Directive PDD/NSC-26, U.S. Antarctica Policy \(March 9, 1996\)](#). The Directive notes the important environmental interests that the U.S. has in Antarctica which were given concrete expression in the Antarctic Treaty of 1959, guaranteeing freedom of scientific research in Antarctica and prohibiting military and nuclear activities.

It is the basis for successful pursuit by the United States of the unique opportunities Antarctic offer for scientific research, as well as associated goals of protecting the environment of Antarctic and conserving its resources. It is essential that the United States continue to maintain an active and influential presence in Antarctica, including year-round operation of South Pole Station. The U.S. presence at South Pole Station demonstrates United States commitment to assert its rights in Antarctica, its basis of claim, and its commitment to conduct cutting-edge scientific research there.

- L. **United States Arctic Policy Directives.** The following presidential documents relate to the U.S. Arctic policy and program:
- 1) **National Security Decision Memorandum 144, United States Arctic Policy and Arctic Policy Group (December 22, 1971).** This memorandum provides for the support of sound and rational policy development in the Arctic and calls for mutually beneficial international cooperation. The Memo also provides for essential security interests in the Arctic and includes the preservation of the principle of freedom of the seas. It directed that an Interagency Arctic Policy Group be established, to include the Secretary of Commerce, to oversee implementation of U.S. Arctic Policy, and it approved the development of a coordinated plan for scientific research, including cooperative projects with the eight Arctic states and other nations.
 - 2) **National Security Presidential Directive/Homeland Security Presidential Directive NSPD-66/HSPD-25, Arctic Region Policy (Jan. 9, 2009).** This directive establishes U.S. policy with respect to the Arctic region. It provides, *inter alia*, that it is the policy of the U.S. to protect the Arctic environment and conserve its biological resources, ensure that natural resource management and economic development in the region are environmentally sustainable, and strengthen institutions for cooperation among the eight Arctic nations. It identifies the Department of Commerce as one of the several federal agencies directed to cooperate with other nations to respond effectively to increased pollutants and other environmental challenges; to identify ways to conserve, protect, and sustainably manage Arctic species; and ensure adequate enforcement presence to safeguard living marine resources.
 - 3) **National Science and Technology Council, Arctic Research Plan: FY 2013-2017 (February 2013).** This five-year Arctic research plan was produced by the Interagency Arctic Research Policy Committee, which is described in the Arctic Research Policy Act of 1984 and which includes the Department of Commerce and NOAA. The Arctic's central role in environmental change makes this region a critical target for research as scientists work to understand the mechanisms influencing global climate. The Plan provides a blueprint for effective federal

coordination of Arctic research for the next five years and positions the U.S. to remain a global leader in Arctic stewardship for many years to come. The Policy identifies seven overlapping research areas:

- Understand sea-ice processes, ecosystem processes, ecosystem services, and climate feedbacks in the Beaufort and Chukchi Seas and the contiguous Arctic Ocean -- (NOAA has a key role);
- Understand terrestrial ice processes, ecosystem processes, ecosystem services, and climate feedbacks in the Arctic;
- Understand atmospheric surface heat, energy, and mass balances -- (NOAA has a key role);
- Integrate and continue to deploy a national Arctic observing system and promote international cooperation to create a circumpolar observing system -- (NOAA has a key role);
- Integrate Arctic regional climate models -- (NOAA has a key role);
- Assess strengths and vulnerabilities of Arctic communities to impacts of climate change and develop adaptation strategies and tools to maximize sustainability, well-being, and cultural and linguistic heritage -- (NOAA has a key role); and
- Understand factors that affect human health in the Arctic, including infectious and non-communicable diseases, environmental contamination, climate change, and behavioral and mental health disorders.

- 4) [National Strategy for the Arctic Region \(May 2013\)](#). This document sets forth U.S. strategic priorities for the Arctic Region as the U.S. endeavors to respond to challenges and emerging opportunities arising from increases in Arctic activity because of diminishing sea ice and the emergence of a new Arctic environment. The strategy is built on three lines of effort: (1) Advancing U.S. security interests. This includes not only national defense, but supporting lawful commerce and international legal principles of freedom of navigation, supporting scientific operations, and achieving greater awareness of activity in the region. (2) Pursuing responsible Arctic region stewardship, to protect the environment and conserve its resources, and to establish an Arctic management framework. (3) Strengthening international cooperation, working through bilateral relationships and multilateral bodies, pursuing arrangements that advance collective interests, and working toward accession of the Law of the Sea Convention.

In January 2014, the White House issued the [Implementation Plan for the National Strategy for the Arctic Region](#) which outlines the methodology, process and approach for executing the Strategy. This Plan complements and builds upon existing initiatives by federal, state, local, and tribal authorities, the private sector, and international partners, and focuses efforts where opportunities exist and action is most needed. It reflects the reality of a changing Arctic environment; supports our national interests in safety, security

and environmental protection; and works with international partners to pursue global objectives in addressing climate change.

- M. [Presidential Decision Directive/NSC-19, Environmental Policy on the Multilateral Development Banks and the Global Environment Facility \(January 5, 1994\)](#). This directive provides for the implementation of U.S. environmental policy related to the multilateral development banks (MDBs) and the Global Environment Facility (GEF). The GEF is the largest public funder of projects to improve the global environment. An independently operating financial organization, the GEF provides grants for projects related to biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants. The GEF is critical to U.S. efforts to address threats to the global environment, including global warming, loss of biodiversity, and pollution of international waters. The goals identified in this directive are intended to ensure that the development agenda of the MDBs is both environmentally sustainable and socially equitable and that the GEF is an effective vehicle for funding projects that achieve global environmental benefits. The directive identifies specific objectives with respect to both the MDBs and the GEF to ensure a focused agenda and to promote U.S. leadership.
- N. [Presidential Review Directive/NSC-43, U.S. Environmental Policy in Latin America and the Caribbean \(March 23, 1994\)](#). The review reflected in this directive seeks to define U.S. objectives regarding environmental protection in Latin America and the Caribbean and to develop a U.S. strategy to achieve those objectives. These issues are addressed on a regional rather than a nation-by-nation basis. (Six regions are identified.) The means which the U.S. may employ to address key environmental issues fall into four broad categories: (1) financial resources, (2) multilateral commitments, (3) capacity building, and (4) trade and development. This review is to be prepared through an interagency working group, coordinated by the State Department, chaired by the Bureau of Inter-American Affairs and co-chaired by the Office of Oceans and International Environmental and Scientific Affairs at State Department.
- O. [Presidential Decision Directive/NSC-28, U.S. Policy Toward Latin America and the Caribbean \(September 8, 1994\)](#). The long-term strategic U.S. goal for Latin America and the Caribbean that is outlined in this directive is to foster a hemisphere of democratic nations with capable, efficient governments, vibrant societies, dynamic economies which provide rising living standards, and expanding export markets for U.S. products. Among other things, the U.S. will seek to advance its global environmental agenda with nations in the hemisphere, seeking to convince countries of the importance of joining Biodiversity, Ozone Protection, and Global Climate Conventions. Trade and investment agreements should be predicated on the principle of sustainable development. The U.S. will work with governments in the region to

increase their institutional capacity to manage environmental problems and promote sustainable development policies, as well as support sustainable development programs. The implementation of these policy decisions should be reviewed periodically in Interagency Working Group meetings.

- P. [Presidential Decision Directive/NSC-36, United States Policy on Protecting the Ocean Environment \(April 5, 1995\)](#). This directive directs the implementation of U.S. policy for protecting the ocean and coastal environment and conserving living marine resources. The U.S. has five principal objectives in this area: (1) becoming a party to U.N. Convention on the Law of the Sea; (2) ensuring sustainable management of ocean fisheries; (3) supporting integrated coastal resource management and reducing marine and coastal pollution; (4) promoting the conservation of marine biodiversity, including whales and other protected species; and (5) conducting scientific research and ocean monitoring, both to support these objectives and to more fully understand oceanic and atmospheric processes of global importance.
- Q. [National Security Presidential Directive NSPD-41/Homeland Security Presidential Directive HSPD-13, Maritime Security Policy \(December 21, 2004\)](#). The Maritime Domain is defined as all areas and things of, on, under, relating to, adjacent to, or bordering on a sea, ocean, or other navigable waterway, including all maritime-related activities, infrastructure, people, cargo, and vessels and other conveyances. The Maritime Domain facilitates a unique freedom of movement and flow of goods while allowing people, cargo, and conveyances to transit with anonymity not generally available by movement over land or by air. The U.S. must deploy the full range of its operational assets and capabilities to prevent the Maritime Domain from being used to commit acts hostile to the U.S., while recognizing that maritime security policies are most effective when the strategic importance of international trade, economic cooperation, and the free flow of commerce are considered. This directive establishes a Maritime Security Policy Coordinating Committee which includes the Secretary of Commerce to oversee the development of a National Strategy for Maritime Security and eight supporting implementation plans, including one to provide a framework to coordinate initiatives undertaken with foreign governments and international organizations and to develop international support for an improved global maritime security framework. In addition, the Directive calls for a Maritime Commerce Security plan which shall define supply-chain security requirements.
- R. [National Ocean Council, National Ocean Policy Implementation Plan \(April 2013\)](#). The National Ocean Council, which includes the Secretary of Commerce and the NOAA Administrator and which was established by Executive Order No. 13547 (*see above*) (which also declared the goals of U.S. Ocean Policy), published this Implementation Plan in order to translate the National Ocean Policy into on-the-ground actions to be taken by federal agencies. These actions will bolster our ocean economy, improve

ocean health, support local communities, strengthen our security and provide better science and information to improve decision-making. The Plan affirms the importance of international cooperation. U.S. accession to the Law of the Sea Convention is critical to protecting our navigation rights and freedoms and to advancing our economic interests in the ocean. Accession to the Convention also means that the U.S. would have the opportunity to place U.S. nominees/designees on various Convention bodies, including those developing rules governing mineral resources in the deep seabed, and those making recommendations regarding Parties' submission on the continental shelf beyond 200 nautical miles. Joining the Convention will also advance our national interests in protecting and enhancing our access to the ocean and important natural resources.

- S. [**Our Ocean 2014 \(June 16-17, 2014\)**](#). In June 2014, the U.S. Department of State hosted an “Our Ocean” conference, bringing together experts, practitioners, lawmakers and members of the international ocean and foreign policy communities to offer unique perspectives and to pledge effective actions and commitments to protect “Our Ocean.” The conference produced the following two outcome documents:
- 1) [**Our Ocean Action Plan**](#). This document describes actions and commitments which the United States will undertake and which it will pursue with other nations and stakeholders in the international community. Four focus areas are identified: (1) “Sustainable Fisheries” describes commitments to end overfishing of marine fish stocks by 2020 and to restore overexploited, deplete and recovering stocks. It also includes commitments to prevent illegal, unreported, and unregulated fishing. (2) “Marine Pollution” includes commitments to reduce both marine debris and nutrient pollution of the marine environment. (3) “Ocean Acidification” includes commitments to stem the increase in ocean acidification by reducing carbon emissions and to create a worldwide capability to monitor ocean acidification, (4) “Protect Ocean Areas” reflects commitments to create more marine protected areas and to protect coastal ecosystems that provide critical services.
 - 2) [**Our Ocean Initiatives**](#). This document reflects new initiatives, commitments and partnerships which the representatives of governments, international organizations, and civil society committed to take to address the challenges facing the oceans. The focus was on protecting unique and valuable ocean areas, promoting sustainable fisheries, reducing marine pollution, preventing and monitoring ocean acidification, building capacity, supporting coastal communities, and mapping and understanding the ocean.

Department of Commerce and NOAA Policy Drivers

- A. **[U. S. Department of Commerce Strategic Plan, FY2011 - FY2016](#)**. The Department's new Strategic Plan is built around three programmatic themes, two of which are directly related to NOAA's mission. In the area of *Science and Information*, NOAA will play a key role in improving scientific knowledge and providing critical information to stakeholders. In this regard, NOAA needs to support a reliable, accessible suite of climate, weather, marine ecosystem, living marine resource and geospatial information. NOAA must also engage stakeholders and the public to build awareness of environmental science, services, and stewardship responsibilities, to foster dialog and to educate citizens and students. NOAA's scientific challenges are global in nature, requiring information sharing among national and international partners. It is critical that NOAA also improve the understanding of the environment by providing timely, relevant, and accurate data, standards and services; and NOAA must continue to enhance weather, water, and climate reporting and forecasting. In the area of *Environmental Stewardship*, NOAA will ensure that ocean, estuarine, and related ecosystems and species are vibrant and sustainable in the face of challenges, and NOAA will play an important role in invigorating coastal communities and economies. With respect to climate adaptation and mitigation, NOAA will improve scientific understanding of the changing climate system and provide timely climate services. NOAA must also play the key role in development of sustainable and resilient fisheries, habitats, and species.
- B. **[Research in NOAA, Toward Understanding and Predicting Earth's Environment, A Five-Year Plan: Fiscal Years 2008-2012](#)**. NOAA's mission is inherently international in nature. NOAA embraces the international scale of scientific collaboration, ranging from atmospheric and climate science to ecosystem research and natural resource management. NOAA's research efforts involve partners from hundreds of countries, institutions, and international and regional organizations. This work is conducted under formal agreements as well as through informal collegial relationships. Through these endeavors, NOAA is recognized as a global leader and a valued partner. Understanding, predicting, and responding to changing trends and vulnerabilities in Earth's environment are global challenges that demand collaboration with the international scientific community. This is accomplished by: (a) engaging in multilateral organizations and in international projects; (b) promoting the adoption of NOAA policy priorities and practices by other countries and international organizations; (c) exchanging data, information, and expertise with colleagues and partners in both formal and informal settings; and (d) providing training, technology transfer, and technical assistance internationally to build the capacity of our partners and thereby raise the level of global capabilities.
- C. **[NOAA Strategic Plan for Deep-Sea Coral and Sponge Ecosystems: Research Management and International Cooperation, NOAA Technical Memorandum CRCP 11 \(2010\)](#)**. This Strategic Plan represents a concerted effort to identify exploration,

research, management, and international cooperative activities that provide the information needed to implement appropriate management measures to protect and conserve deep-sea coral and sponge ecosystems. Because deep-sea coral and sponge communities occur both within and beyond national jurisdictions, effective and comprehensive research, conservation, and management measures will benefit from complementary national, regional, and global initiatives. NOAA's objectives to enhance international conservation of deep-sea coral and sponge communities include:

- Promoting international partnerships to conserve deep-sea coral and sponge ecosystems through the sustainable management of deep-sea fisheries activities impacting those resources;
- Ensuring that international trade in deep-sea coral and sponge species, and their parts and products, is sustainable; and
- Increasing international exploration and research of deep-sea coral and sponge ecosystems.

D. [NOAA Ocean and Great Lakes Acidification Research Plan \(April 2010\)](#). The overarching goal of this plan is to predict how ecosystems will respond to acidification and to provide information that resource managers can use to address acidification issues. International cooperation will be coordinated through the Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) and Surface Ocean-Lower Atmosphere Study (SOLAS) Working Group on Ocean Acidification. This joint international working group has two main goals: (1) coordinate international research efforts in ocean acidification, and (2) undertake synthesis activities in ocean acidification at the international level. Two members of the U.S. Interagency Working Group on Ocean Acidification are also members of the IMBER/SOLAS Working Group on Ocean Acidification and will carry out the coordination activities between the two groups.

E. [NOAA Next Generation Strategic Plan \(December 2010\)](#). NOAA's Next General Strategic Plan reflects evidence of progress within each of the Plan's objectives to form the basis of outcome-oriented performance measures. Evidence of progress under the Plan's International Objective includes:

- Full implementation of the provisions of the Magnuson-Stevens Fishery Conservation and Management Act to combat illegal, unregulated, and unreported fishing and bycatch of protected living marine resources in international fisheries;
- Fulfillment of the Coral Triangle Initiative objectives;
- Build transboundary relationships that support NOAA regional engagement, including those in the Arctic, Gulf of Mexico, and North America, including the Great Lakes, the Caribbean, Pacific Islands, and the Gulf of Mexico;
- Implement the International Marine Mammal Action Plan;

- Expanded collaborations and partnerships on international environmental observing capabilities and on climate observing systems, assessments, and services; and
 - Reduced loss of life, property, and disruption from and response to natural, high-impact international events.
- F. [**Coral Reef Conservation Program: International Strategy, 2010-2015**](#). The Coral Reef Conservation Program's International Strategy is designed to bring greater focus to the Program's international activities on subjects and in regions where the Program can have the greatest impact in applying NOAA's strengths, in building partnerships, and in leveraging resources and expertise. The major focus will be to support activities related to marine protected area capacity building in four key international regions (the wider Caribbean, Micronesia, Samoa and the Southwest Pacific, and the Coral Triangle). Through this International Strategy, the Program will:
- Work with regional initiatives to build Marine Protected Area networks and strengthen local management capacity to improve and maintain the resilience of coral reef ecosystems;
 - Develop and implement tools and practices to more effectively observe, predict, communicate, and manage climate change impacts in priority international locations;
 - Strengthen local and national capacity and policy frameworks to reduce impacts of fishing on coral reef ecosystems; and
 - Strengthen policy frameworks and institutional capacities to reduce impacts to coral reef ecosystems from pollution originating in land-based activities.
- G. [**Coral Reef Conservation Program: Goals and Objectives, 2010-2015**](#). The decline and loss of coral reef ecosystems have significant social, cultural, economic, and ecological impacts on people and communities in the United States and around the world. The Coral Reef Conservation Program will emphasize efforts to understand and address the top three recognized global threats to coral reef ecosystems: (a) climate change impacts, (b) fishing impacts, and (c) impacts from land-based sources of pollution. Development of these goals and objectives is but one step in a multistep process. Using this document as a keystone, the Program will be engaged in concurrent efforts to assess jurisdictional governance and capacity gaps, improve performance measures, and develop an education, outreach, and communication strategy.
- H. [**NOAA's Arctic Strategy and Action Plan**](#). The following two documents describe NOAA's goals with respect to the Arctic and the agency's efforts to support the *National Strategy for the Arctic Region*:

- 1) [NOAA's Arctic Vision and Strategy \(February 2011\)](#). NOAA envisions an Arctic where decisions and actions related to conservation, management, and use are based on sound science and support healthy, productive, and resilient communities and ecosystems. The agency seeks a future where the global implications of Arctic change are better understood and predicted. NOAA will focus its efforts on the following six priority goals needed to realize this vision:
 - Ensuring that accurate, quantitative, daily forecasts to decadal predictions of sea ice are provided to support safe operations and ecosystem stewardship;
 - Strengthening foundational science to understand and detect Arctic climate and ecosystem changes;
 - Improving weather and water forecasts and warnings to ensure society can prepare for and respond appropriately to weather-related routine and extreme events;
 - Enhancing international and national partnerships to promote cooperation and sharing of data, observational platforms, and intellectual resources. Science and technology agreements and memoranda of understanding with Russia, Norway, Sweden, Finland, Canada, and Denmark support NOAA's work in these Arctic countries in areas such as weather, climate, aviation, marine observations, forecasts, ecosystem management, fisheries, and ice monitoring. NOAA must continue and expand these relationships through partnerships and formal bilateral arrangements;
 - Improving stewardship and management of ocean and coastal resources in the Arctic; and
 - Advancing resilient and healthy Arctic communities and economies.

- 2) [NOAA's Arctic Action Plan: Supporting the National Strategy for the Arctic Region \(April 2014\)](#). NOAA's Arctic Action Plan describes NOAA's many diverse efforts in the Arctic and how they implement *NOAA's Arctic Vision and Strategy* (February 2011) as well as support and harmonize with the *National Strategy for the Arctic Region* (May 2013). The Plan lays out concrete objectives in setting priorities, leveraging partnerships (including international partnerships), and building upon accomplishments. Specific actions and outcome targets for fiscal years 2014 and 2015 are described in an appendix to the Plan. The geographic scope of the Plan includes the Aleutian Islands, the Bering Sea, the Chukchi Sea, the Beaufort Sea, and vast terrestrial areas of northern and western Alaska. NOAA currently has active programs in all of these Arctic geographic subareas.

- I. [Department of Commerce, Policy Memorandum, Addressing Climate Change Impacts at the Department of Commerce in Operations and Programs \(June 1, 2011\)](#). This memorandum prescribes policies and establishes responsibilities and

procedures for the Department of Commerce to follow for integrating climate change adaptation planning and actions into Departmental operations, policies, and programs. It is the policy of the Department to undertake comprehensive climate change adaptation planning in order to ensure that the Department fulfills its mission and maintains its programs and operations in a changing climate. The Policy calls for establishment of a Coordinating Committee to develop and implement an integrated strategy for responding to climate change impacts on the Department's programs. The Coordinating Committee shall develop and publish a Department-wide Climate Adaptation Plan (CAP) and update it every 5 years. The CAP shall provide an analysis of the Department's vulnerability to climate change and identify priority climate change adaptation actions the Department may take to improve resilience to climate change across its programs and trust resources. Among other things, the CAP shall recognize and incorporate into the integrated strategy the Department's unique role as the primary federal source of climate science and services.

- J. [The National Global Change Research Plan 2012-2021: A Strategic Plan for the U.S. Global Change Research Program \(April 2, 2012\)](#). This plan coordinates and integrates scientific research across thirteen agencies of the U.S. government whose missions focus, to some degree, on changes to the global environment and their implications for society. Included among the mentioned agencies is the Department of Commerce. The Plan was mandated by the Global Change Research Act of 1990 (the Act) and is built around four strategic goals: to advance science, inform decisions, conduct sustained assessments, and to communicate and educate. The Plan emphasizes the importance of national and international partnerships that leverage federal investments and provide for the widest use of program results. The Act requires that the Program (a) coordinate with other national and international organizations on global change research projects, (b) promote international access to scientific data and information, and (c) participate in international global change research by developing nations. Many U.S. global change observing systems benefitted greatly from international collaborations. For example, NOAA and the European Organization for the Exploitation of Meteorological Satellites have undertaken a series of satellite missions to establish a 20-year stable, highly accurate, and well-calibrated global sea level time series.
- K. [United States Coast Guard and NOAA Cooperative Maritime Strategy \(February 2013\)](#). This strategy outlines joint objectives in the Maritime domain over the next 10 years, consistent with the President's National Ocean Policy. It outlines three strategic priorities to guide the formal partnership between Coast Guard and NOAA:
- Promote a safe and sustainable marine environment;
 - Enhance regional collaboration; and
 - Foster innovation in science, technology, and youth education.

Additional factors that will help ensure long-term success include: implementation of the National Ocean Policy, joining the Convention on the Law of the Sea, establishing effective partnerships, leveraging administrative and training efficiencies, and planning for adaptation to the effects of climate change.

- L. [Research and Development at NOAA: Five-Year Research and Development Plan, 2013-2017](#). This Research and Development Plan will help guide NOAA's scientific enterprise over the next five years. R&D at NOAA seeks an understanding of global ecosystems to support informed decision making. The foundations of the Plan are NOAA planning documents such as the Next Generation Strategic Plan and Internal Implementation Plans, specific strategic documents such as the Arctic Action Plan, Science Challenge Workshop Reports, and NOAA Science Advisory Board reports. With these inputs, cross-NOAA strategy teams organized by the Agency's strategic goals and enterprise objectives, defined a number of key questions facing society that can only be answered through R&D, and under each question specific objectives and discrete five-year targets for R&D were developed that chart a path forward for NOAA and its R&D partners.
- NOAA's goal for **climate adaptation and mitigation** is an informed society anticipating and responding to climate and its impacts.
 - NOAA's goal for a **weather-ready nation** is that society is prepared for and responds to weather-related events.
 - NOAA's goal for **healthy oceans** is that marine fisheries, habitat, and biodiversity are sustained within healthy and productive ecosystems.
 - NOAA's goal for **resilient coastal communities and economies** is that coastal and Great Lakes communities are environmentally and economically sustainable.
 - NOAA's enterprise objective for **stakeholder engagement** is an engaged and educated public with an improved capacity to make scientifically informed environmental decisions.
 - NOAA's enterprise objective for **environmental data** is accurate and reliable data from sustained and integrated Earth observing systems.
 - NOAA's enterprise objective for **environmental modeling** is an integrated environmental modeling system.

NOAA Line Office and Program Policy Drivers

- A. [NOAA Fisheries, National Marine Fisheries Service Strategic Plan, New Priorities for the 21st Century, FY 2005 - FY 2010](#). Most of NMFS' programmatic activities support achieving NOAA's strategic goal to "protect, restore, and manage the use of coastal and ocean resources through an ecosystem approach to management." NMFS activities also support NOAA's goal to "understand climate variability and change to enhance society's ability to plan and respond." NMFS also provides critical support for NOAA's mission.

Most of NMFS activities fall under the ecosystem goal and support NOAA performance objectives. These activities include::

- Increasing the number of fish stocks managed at sustainable levels. Management of fisheries resources is entrusted to NMFS under numerous laws, treaties and other mandates. NMFS supports U.S. participation in RFMOs and bilateral consultations;
- Increasing the number of protected species that reach stable population levels;
- Increasing the number of regional coastal and marine ecosystems delineated with approved indicators of ecological health and socio-economic benefits that are monitored and understood;
- Increasing the number of habitat acres conserved or restored; and
- Increasing the portion of the population knowledgeable about and acting as stewards of coastal and marine ecosystems.

With respect to understanding climate variability and change, NMFS activities support the following activities:

- Understanding and predicting the effect of global climate variability and change on marine ecosystems; and
- Increasing the number and use of climate products and services to enhance public and private sector decision making.

- B. [NOAA Fisheries, Office of International Affairs Strategic Operating Plan – 2006-2011 \(January 2006\)](#). This plan provides a collection of relevant policy guidance from various sources including the Department of Commerce Strategic Plan, the NOAA International Affairs Council, the National Marine Fisheries Strategic Plan, and the Mission and Vision statements from NOAA Fisheries Office of International Affairs, as developed by its staff. In the latter category, the Office of International Affairs, together with other U.S. agencies and additional domestic and international partners, seeks to accomplish the following goals and objectives in support of its mission and vision:
- Promoting ecosystem-based fisheries management;
 - Controlling fishing capacity;
 - Combating IUU fishing;
 - Strengthening Regional Fishery Management Organizations;
 - Securing equitable access for U.S. fishers to shared resources;
 - Increasing assistance to developing states; and
 - Ensuring food security.
- C. [NOAA Fisheries, NMFS Strategic Plan for Fisheries Research \(August 2007\)](#). The major fishery research goals of NMFS generally have a one-to-one relationship with the program areas identified in the Magnuson-Stevens Fishery Conservation and Management Act:
- Provide scientifically sound information and data sufficient to support ecosystem-based fishery conservation and management;

- Through conservation engineering research, contribute to efforts to reduce bycatch and adverse effect on essential fish habitat, promote efficient harvest of target species, and improve data from fishery surveys. Work through domestic and international cooperative relationships with industry and environmental groups, including take-reduction teams, special task forces, and other needed scientific collaborations. Explore, develop, and implement new technologies and practices for reducing detrimental interactions. When such technologies could reduce detrimental effects both to and from protected species in other nations, these technologies will be made available to those nations;
 - Through economic and ecological research on marine communities and ecosystems, provide scientific data and information to increase long-term economic and social benefits to the nation from living marine resources;
 - Provide scientific information and assessments to guide the development of a sustainable and environmentally sound marine aquaculture;
 - Improve the fishery information system; and
 - Improve the effectiveness of external partnerships with fishers, managers, scientists, conservationists, and other interested groups.
- D. [NOAA Fisheries, Office for Law Enforcement: National and Division Enforcement Priorities for 2012](#). The NOAA Office for Law Enforcement (OLE) has established enforcement priorities to meet its mission, guide its planning, and focus the use of NOAA enforcement assets relative to marine resources. Highest among the national priorities is strengthening the enforcement of fishery regulations concerning imports and exports and monitoring fishery imports for compliance with international treaty obligations. International trade in fishery products directly affects the economics of domestic fisheries. Mislabeled products can lead to the introduction of unsafe products into U.S. markets. Moreover, illegal, unregulated, and unreported (IUU) fishing activity disadvantages the U.S. high seas fishing fleet and decimates migratory stocks important to U.S. markets.
- E. [NOAA Fisheries, International Marine Mammal Action Plan 2012-2016 \(November 2012\)](#). This Action Plan's overarching objective is to *conduct research and collaborate with international partners to conserve marine mammals in international or foreign waters, emphasizing the recovery of depleted or endangered marine mammals*. To achieve this objective, the Action Plan includes Seven Strategic Priorities:
- Reduce the bycatch of marine mammals in international and foreign fisheries to sustainable levels;
 - Improve understanding of climate change impacts on marine mammals;
 - Reduce the threat of prey depletion by considering predator-prey relationships under an ecosystem approach to fishery management;
 - Reduce the threat of marine debris to marine mammals by decreasing the loss of marine debris—including derelict fishing gear—into the ocean;

- Reduce the number of vessel strikes in international and foreign waters; and
 - Prevent habitat loss, degradation, and disturbance through marine spatial planning and marine protected area designation;
 - Improve understanding of, and response to, the occurrence of disease and die-offs in marine mammal populations.
- F. [NOAA International Affairs Council Statement of International Goals \(November 2005\)](#). Internationally, NOAA supports and promotes policies and interests in ecosystem-based management, climate science, earth observation, water management, and weather forecasting. NOAA's strategy is to foster adherence to interagency and international environmental programs and policies, consistent with the Agency's goals. NOAA works to leverage multilateral and bilateral relationships to take full advantage of the development and use of research, observations, environmental science, and ecosystem management. This statement identifies three sets of NOAA goals: (1) overarching goals for international engagement, (2) international goals attendant to NOAA mission goals, and (3) international goals attendant to cross-cutting priorities.
- G. [National Ocean Service, Strategic Plan of the National Ocean Service, 2005-2010](#). This plan seeks to invest in high priority areas that address national and international interests in the ocean and hold exceptional promise to accelerate the frontiers of knowledge. Through its International Program, the National Ocean Service (NOS) seeks to have global influence and impact. It will work collaboratively with other nations and learn from them on projects that are of a global scope, including proactive participation in international ocean policy formulation and governance, and integrated coastal management. NOS works closely with the State Department as well as the governments of other nations from Asia, Latin America, the Caribbean, and Africa to advance worldwide capacity for effective resource management and coordinated scientific research. NOS will continue to work with international partners such as the United Nations Environment Programme, the International Maritime Organization, the International Hydrographic Organization, the Intergovernmental Oceanographic Commission, World Conservation Union, and the International Coral Reef Initiative on cross-boundary issues that affect the world's marine and coastal environments, as well as on efforts in mapping and charting. NOS will continue bilateral programs to foster global collaboration, international partnerships and country-to-country agreements.
- H. [National Ocean Service, Our National Marine Sanctuaries, Strategic Plan 2005-2015 \(April 2005\)](#). The National Marine Sanctuaries Act provides the broad mandates, purposes, and policies for the National Marine Sanctuaries program. Sanctuary management plans and annual operating plans contain more specific and detailed tasks for day-to-day management at a site and throughout the overall program. This plan contains goals and objectives that provide a bridge between broad mandates and daily

operations, encompassing the nine purposes and policies in the Act and the functional categories for annual operating plans. The Plan goals are as follows:

- Identify, designate, and manage sanctuaries to maintain the natural biological communities in sanctuaries and to protect and, where appropriate, restore and enhance natural habitats, populations, and ecological processes, through innovative, coordinated, and community-based measures and techniques;
- Build and strengthen the nation-wide system of marine sanctuaries, maintain and enhance the role of the NMSP's system in larger marine protected area networks, and help provide both national and international leadership for marine protected area management and marine resource stewardship;
- Enhance nation-wide public awareness, understanding, and appreciation of marine and Great Lakes ecosystems and maritime heritage resources through outreach, education, and interpretation efforts;
- Investigate and enhance the understanding of ecosystem processes through continued scientific research, monitoring, and characterization to support ecosystem-based management in sanctuaries and throughout U.S. waters;
- Facilitate human use in sanctuaries to the extent such uses are compatible with the primary mandate of resource protection, through innovative public participation and interagency cooperative arrangements;
- Work with the international community to strengthen global protection of marine resources, investigate and employ appropriate new management approaches, and disseminate NMSP experience and techniques; and
- Build, maintain, and enhance an operational capability and infrastructure that efficiently and effectively support the attainment of the NMSP's mission and goals.

- I. [National Ocean Service, Our National Marine Sanctuaries, International Program: Action Plan, Protocols and Programs \(August 2006\)](#). This international action plan has been prepared by the Sanctuary Program to describe how it will fulfill one of its legislative purposes, namely "to cooperate with global programs encouraging conservation of marine resources," and to achieve its strategic goals, objectives, and performance measures for international activities. The primary goal for international activities as stated in the National Marine Sanctuaries Program Strategic Plan is Goal 6: "Work with the international community to strengthen global protection of marine resources, investigate and employ appropriate new management approaches, and disseminate NMSP experience and techniques." The following strategies and activities are needed to attain the goals and objectives set out in the NMSP Strategic Plan:
- Build an infrastructure for the NMSP International Program;
 - Build operational and technical capacity and experience within NMSP based on international exchanges and experience;
 - Identify and maximize use of legal and other international mechanisms to help protect sanctuary resources;

- Improve the ability of the NMSP to exchange expertise and services to facilitate the design, designation, implementation, and management of marine protected areas, including research and education activities; and
 - Develop a long-term international strategy for NMSP engagement in international activities.
- J. [National Ocean Service, Office of Ocean and Coastal Resource Management: Strategic Plan, 2007-2012](#). The mission, vision, goals, objectives, and strategies outlined in this Plan were established to highlight Ocean and Coastal Resource Management's (OCRM's) cross-program priorities and to facilitate cooperative support of OCRM partners. The Plan bridges the broad programmatic mandates contained in the Coastal Zone Management Act, the Marine Protected Area Executive Order (Executive Order No. 13158), and the Coral Reef Conservation Act and the specific strategic objectives established by each OCRM program. OCRM brings federal, regional, state, local, international, and nongovernmental partners together to direct knowledge, technical capacity, and financial resources to important coastal and ocean issues. OCRM contributes to its partners' success by providing technical assistance, training, information, tools, and science, and by administering federal funds to address priority areas. Strategies include coordinating regional, national, and international activities among existing marine protected areas and identifying areas for future designation. It also includes transfer of coastal and ocean monitoring technologies and methodologies internationally.
- K. [National Ocean Service, NOAA Center for Operational Oceanographic Products and Services \(CO-OPS\): Strategic Plan 2010-2015](#). CO-OPS is at the center of NOAA's vision for an informed society that uses a comprehensive understanding of the role of the oceans, coasts, and atmosphere in the global ecosystem to make the best social and economic decisions. This 5-year strategic plan establishes goals and sets forth the necessary strategies to achieve the mission of serving as the authoritative source for accurate, reliable, and timely tide, water level, current, and other oceanographic information to support safe and efficient navigation, sound ecosystem stewardship, coastal hazards preparedness and response, and the understanding of climate change -- turning operational oceanographic data into meaningful information for society.
- L. [National Ocean Service, Great Lakes Environmental Research Lab \(GLERL\) Strategic Plan \(2012\)](#). This plan includes a number of initiatives including the Great Lakes Restoration Initiative (GLRI), begun in early 2009, which has provided more than \$1 billion to support Great Lakes restoration, including more than \$110 million to NOAA in its first four years. Administered through the Great Lakes Regional Collaboration Team, the GLRI supports NOAA's mission-focused work in the areas of toxic chemical remediation, habitat restoration, aquatic invasive species, nearshore modeling, observation and ecosystem forecasting, and work related to climate change. It also

includes the Great Lakes Water Quality Protocol of 2012 which is an updated agreement between the United States and Canada to restore and protect the physical, chemical, and biological integrity of the Great Lakes, with many of its provisions codified in the Clean Water Act. This agreement is the foundation for many regional priorities and governance structures that exist in the region today.

- M. [NOAA Satellites and Information Service Strategic Plan, FY 2005-2010](#). NESDIS contributes to the outcomes and strategies of all the NOAA goals and programs by providing long-term archives and access services for environmental observations and information. These include:
- Changes in critical ecosystems, such as coral reefs, can be detected through monitoring and development of ecosystem baseline conditions. Ecosystem monitoring platforms will be validated and monitored for quality.
 - NESDIS is the nation's official source of data on climate change. High-quality data from an integrated observing network provides end-to-end links between research, operations, and climate users. NESDIS plans to ingest, process, archive, and access data on a truly continuous, round-the-clock basis.
 - NESDIS' role in collecting, processing, distributing, and archiving environmental data must continue to evolve to meet the national requirement for timely, accurate weather data and forecasts.
 - NESDIS information products and services are essential for safe and efficient transportation and commerce systems. New products and algorithms in support of transportation safety will be developed. The capability to deliver reliable and accurate distress alerts will be enhanced.
 - Knowledge gained from NESDIS' applied research enterprise ensures continuing improvements in satellite observations and the accuracy of satellite data and derived products.
 - The National Polar-orbiting Operational Environmental Satellite System will provide the next generation of national polar-orbiting environmental satellites and NESDIS will be processing data and distributing products from the European Organization for the Exploitation of Meteorological Satellites.
 - NESDIS will be engaged in building international partnerships addressing governance policy issues relating to the Global Earth Observation System of Systems, ensuring user access and facilitating the sharing of new observation data.
- N. [NOAA Coastal Services Center: Strategic Plan, 2010-2015 \(March 2010\)](#). The strategies described in this Plan support the missions and visions of DOC, NOAA and the National Ocean Service. Priorities are driven by the needs of coastal managers and represent societal goals for sustainable coastal communities and economies. They seek to support an informed society in anticipating and responding to changing climate and its impacts. The plan addresses two key strategic issues facing coastal communities: 1) adapting to

the impacts of coastal hazards and climate change; and 2) balancing the competing uses of critical coastal resources. There is an urgent need to build capacity to address these issues.

- O. [Oceanic and Atmospheric Research \(OAR\) Strategic Plan \(April 2014\)](#). OAR's role as NOAA's centralized research office is critical to NOAA's ability to carry out its mission of science, stewardship, and service. In meeting the challenges of the 21st century, the availability of relevant scientific information that is unbiased and appropriate to key stakeholders is of utmost importance. OAR's vision is to be a trusted world leader in observing, modeling, understanding and predicting the Earth system. OAR's position at the intersection of NOAA's science and service missions, on the one hand, and the broader research community on the other enables it to lead a research agenda and forge partnerships that advance understanding and prediction of the Earth System to enhance society's ability to make effective decisions. OAR works with partners to reduce the vulnerability of social and ecological systems in the short-term, and to help society avoid and adapt to long-term environmental changes. OAR conducts research that is concerned with both "fundamental understanding" and "ultimate use" – it is use-inspired research. To improve capabilities for scientific research for NOAA's service lines and for partners around the world, OAR develops sensors, models and other tools. OAR works to transition the results of its activities so that they are useful to society. Transition includes transferring technology and knowledge to stakeholders' operations. It may include physical instruments and tools as well as methodologies. Whether improving warning lead times for tornadoes or hurricanes, or understanding the response of ecosystems in a rapidly changing ocean environment, OAR's research enables solutions that prevent loss of life, improve management of natural resources, build an understanding of the Earth System, and strengthen the economy.
- P. [NOAA Office of Ocean Exploration and Research: Strategic Plan FY 2011- FY 2015 \(May 2011\)](#). The mission of NOAA's Office of Ocean Exploration and Research (OER) is to develop and use state-of-the-art technology to increase our scientific knowledge of the Earth's largely unknown ocean, in all its dimensions, and to support NOAA and its national objectives. To accomplish this mission, OER has set four strategic goals:
- Conduct scientific baseline characterizations of unknown or poorly-known ocean basin boundaries, processes, and resources (OER's exploration endeavor embraces the U.S. and international ocean science communities and all disciplines of oceanography);
 - Transition ocean exploration discoveries to new research areas and research results to new applications to benefit society;
 - Expand the pace, scope, and efficiency of exploration and research through the advancement of underwater technologies; and

- Engage diverse audiences through innovative means by integrating science, education, and outreach.

OER supports a continuum of ocean science that makes discoveries via exploration and research, and it transitions the new knowledge and capabilities to the rest of NOAA as well as the national and international science, technology, and ocean management communities.

- Q. [NOAA's Tsunami Program, 2008-2017: Strategic Plan \(July 2008\)](#). The Tsunami Warning and Education Act identifies NOAA as the lead agency responsible for operating the U.S. Tsunami Warning System and for providing technical assistance and training to the Global Tsunami Warning System. A sustained U.S. tsunami effort will result in critical outcomes that include the following:
- Timely and accurate tsunami forecast and warning products;
 - Tsunami products that are understandable and usable;
 - Resilient communities inhabited by a public educated to take appropriate action
 - Reliable and coordinated data, communications, and dissemination infrastructure, and the capability to acquire and exchange relevant tsunami data and information that supports the tsunami mission;
 - Interdisciplinary science and research results leading to more effective and affordable tsunami warning and mitigation products and services;
 - Technical assistance, training, and capacity development both at global and regional levels, supporting the fully operational tsunami warning system; and
 - Integration with other relevant national, regional, and global ocean and coastal observation, warning, mitigation, and risk management systems.
- R. [Weather-Ready Nation: NOAA's National Weather Service Strategic Plan 2011](#). This strategic plan advances the Service's mission to provide weather, water, and climate data, as well as forecasts and warnings for the protection of life and property and the enhancement of the national economy key goals that will support its vision of a Weather-Ready Nation. NWS fosters global collaboration, working through the United Nations process and international agreements. Global cooperation on observations, data exchange, modeling research and development is important to continued success. Providing global leadership in setting meteorological standards and building partnerships to protect lives and property is also critical. The Plan identifies six goals that focus on critical weather-dependent issues:
- Improve weather decision services for events that threaten lives and livelihoods;
 - Deliver improved weather forecasting services to support management of the Nation's water supply;

- Enhance climate services to help communities, businesses, and governments understand and adapt to climate-related risks;
 - Improve sector-relevant information in support of economic productivity;
 - Enable integrated environmental forecasting services to support healthy communities and ecosystems; and
 - Sustain a highly-skilled, professional workforce equipped with the training, tools, and infrastructure to accomplish the Service’s mission.
- S. [NOAA’s Climate Program Office: Strategic Plan, 2015-2019 \(last modified June 26, 2014\)](#). The mission of NOAA’s Climate Program Office is to advance scientific understanding, monitoring, and prediction of climate and its impacts to enable effective decision making. The Office seeks to ensure that its science helps citizens, businesses, and governments make intelligent choices. The Plan describes how NOAA’s capabilities will be used to address critical Societal Challenges, including weather and climate extremes, climate impacts on water resources, coastal and climate resilience, and the sustainability of marine ecosystems. The Plan calls for a high degree of collaboration with partners across NOAA and elsewhere in government, academia, the private sector and internationally. For example, the Office has set the strategic objective of engaging the international research and development community to identify common goals, support research and observing activities, increase capabilities, and encourage productive international climate research endeavors.