NOAA

Business Operations Manual

FEBRUARY 2011

VERSION 6.2

CELEBRATING 40 YEARS OF SCIENCE, SERVICE, AND STEWARDSHIP

LETTER FROM THE DEPUTY UNDER SECRETARY

As NOAA moves to implement our Next-Generation Strategic Plan and chart our course into the future, we must continue to be committed to delivering the services on which our Nation relies. This is an exciting time for NOAA, filled with both challenges and opportunities, and much of our success will depend on how our agency is managed at all levels, and the business practices that dictate both our day-to-day operations and our longer-term planning. This NOAA Business Operations Manual has been developed to provide both employees and team members with fundamental knowledge about "how we do business here."

At the same time, we must always be focused on how we can do better. We operate in a changing environment. Improvements occur when informed decisionmaking and solid business practices are conducted at every level of the organization. As we navigate change, NOAA's Business Operations Manual serves as a consistent source of up-to-date information on NOAA's latest operations and practices. I am confident that you will find this manual to be an informative living document that will help us work together to achieve our mission in service to the Nation.

Mary M. Glackin
Deputy Under Secretary for Operations

"The question we ask today is not whether our government is too big or too small, but whether it works."

—President Barack Obama
January 20, 2009

"I continue to be impressed by our employees' passion for scientific discovery and exploration, their inherent spirit of innovation, and their dedication to public service."

— Dr. Jane Lubchenco
Under Secretary of Commerce for Oceans and Atmosphere, September 13, 2010

PREFACE

NOAA'S MISSION:
SCIENCE, SERVICE, AND STEWARDSHIP

To understand and predict changes in climate, weather, oceans, and coasts
To share that knowledge and information with others, and
To conserve and manage coastal and marine ecosystems and resources

NOAA'S VISION:
RESILIENT ECOSYSTEMS, COMMUNITIES, AND ECONOMIES

Healthy ecosystems, communities, and economies
that are resilient in the face of change

The National Oceanic and Atmospheric Administration (NOAA) relies on its personnel to deliver high-quality products and services to achieve its vision and meet its mission. The *Business Operations Manual* (BOM) will familiarize employees with the fundamental aspects of NOAA - its brand-new organizational structure, enduring business operations, the Next-Generation Strategic Plan (NGSP), and Strategic Execution and Evaluation (SEE) process.

The BOM describes NOAA's organizational structure, providing information about the operating branches, corporate functions, strategic and executing organization, and Regional Collaboration effort, as well as intersections among these entities and functions. The BOM explains how NOAA functions provide products and services that fulfill its mission and how these functions relate to each other through the agency's strategic framework and management practices. The BOM provides an overview of the NGSP, including the agency's long-term goals and seven-year implementation plans. The BOM also explains the framework for SEE, the agency's streamlined budgeting and decisionmaking system.

WHAT THE BOM IS It is a single reference document with basic information on fundamental aspects of the agency. The manual helps NOAA personnel deliver high-quality products and services through uniform operations.

WHAT THE BOM ISN'T It is not a comprehensive reference document that is all-inclusive of every aspect of this complex agency. Web links direct the reader to additional information where available.

RECENT CHANGES Since the BOM was published in March 2010, a number of changes to the agency's organization and management practices have occurred. Some changes are still underway and will be included in the next version of the manual. Changes discussed in this manual include an overview of NOAA's revised organizational structure, the NGSP, and the new SEE process, which replaces the Planning, Programming, Budgeting, and Execution System (PPBES). The latest information about changes to the organization and management practices is available on the Office of Program Planning and Integration (PPI) web site at **www.ppi.noaa.gov**.

Let us hear from you

PPI updates the BOM annually or more often as necessary. Please let us know what additions and changes to the BOM would help you accomplish your work in support of NOAA's vision and mission. Please email your suggestions to **strategic.planning@noaa.gov**.

History of NOAA

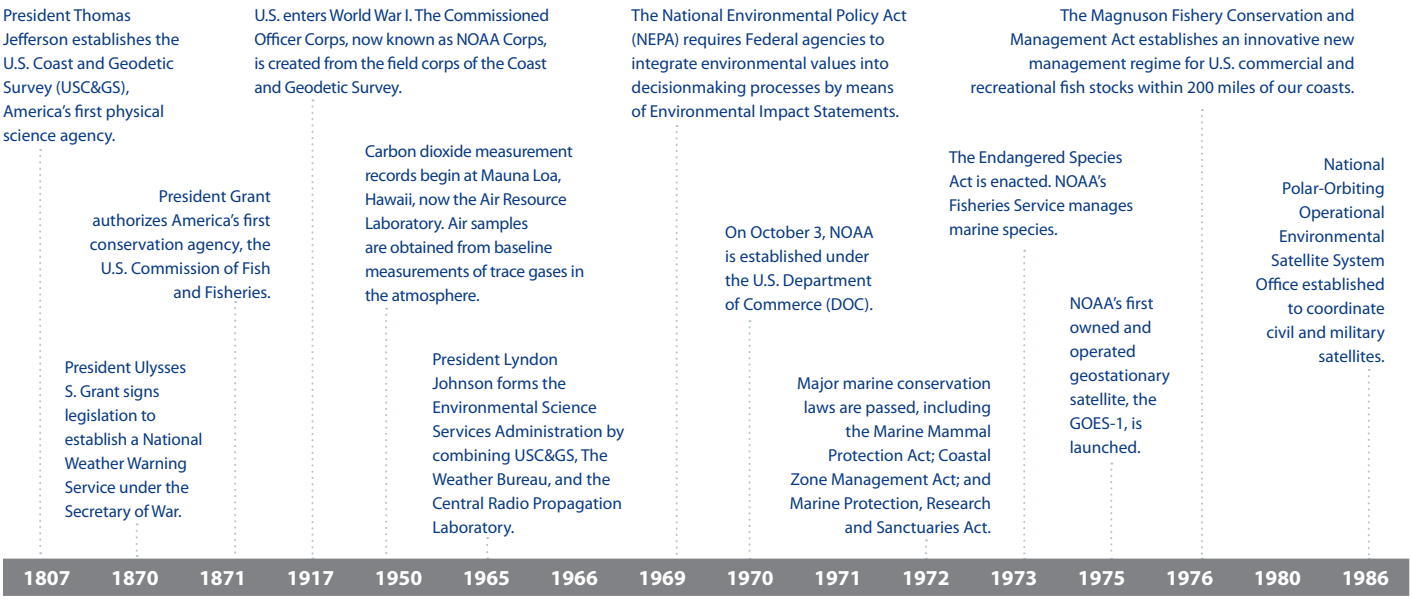
The **NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)** traces its roots to some of the oldest agencies in the Federal Government, including the U.S. Coast and Geodetic Survey (USC&GS), which was established in 1807 by President Thomas Jefferson as America's first physical science agency; the Weather Bureau, which was established in 1870; and the Bureau of Commercial Fisheries, America's first conservation agency, which was formed in 1871.

The USC&GS, originally the "Survey of the Coast," was established on February 10, 1807, by President Thomas Jefferson. The increasing importance of waterborne commerce to the new Nation prompted Jefferson to sign legislation to "cause a survey to be taken of coasts of the United States." Using officers detailed from the Navy (for the seagoing portion of charting) and from the Army Topographical Bureau, the "Survey" conducted its early activities under the U.S. Department of Treasury, where it shared vessels with the Revenue Cutter Service, forerunner of the Coast Guard.

In 1965, President Lyndon Johnson formed the Environmental Science Services Administration (ESSA) by combining USC&GS, the Weather Bureau, and the Central Radio Propagation Laboratory. ESSA was formed, in the President's words, to "enable scientists to investigate the physical environment as a 'scientific whole'" rather than as a "collection of separate and distinct fields of scientific interest." Within a few years, it became evident that a more complete understanding of the oceans and atmosphere required integrating the study of marine life into the mission of a new agency. With this evidence, the concept of NOAA was born and given life by the Stratton Commission in 1970.

To form NOAA, ESSA was joined by other Federal programs, including the Bureau of Commercial Fisheries, National Oceanographic Data Center, National Data Buoy Project, U.S. Lake Survey, and Office of Sea Grant Programs. Much of America's scientific heritage resides in these programs, and staff brought their expertise in scientific accuracy and precision, stewardship of resources, and protection of life and property to the newly-formed NOAA.

The Nation took a major turn toward stewardship of marine resources following the formation of NOAA, and numerous acts were passed which broadened the scope of NOAA's mission. These included the National Environmental Policy Act of 1969; the Marine Mammal Protection Act, Coastal Zone Management Act, and Marine Protection, Research and Sanctuaries Act in 1972; the Endangered Species Act of 1973; and the Magnuson Fishery Conservation and Management Act of 1976, which established an innovative new management regime for U.S. commercial and recreational fish stocks within 200 miles of U.S. coasts.

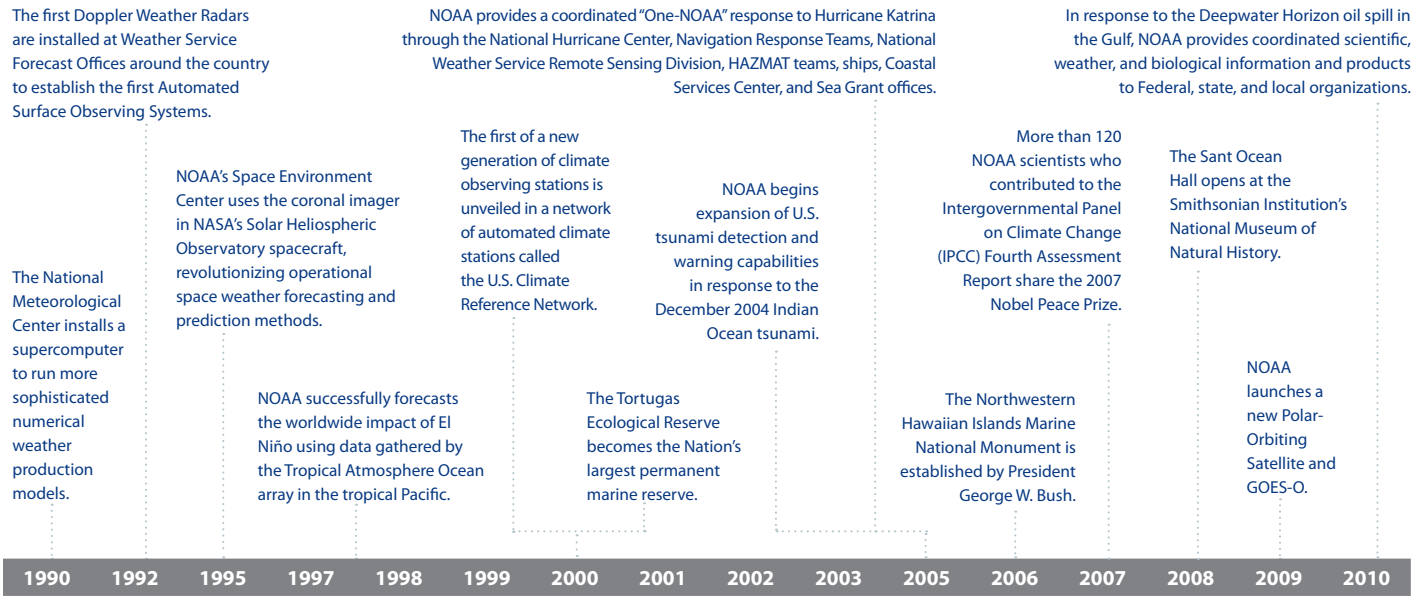


NOAA research and development efforts matured during the 1970s with atmospheric studies, such as the Global Weather Experiment, hurricane research with Project Stormfury, weather modification research, and climate research. In the realm of the ocean, the Manned Undersea Science and Technology Program supported research submersibles, including the famous ALVIN, manned habitats, and projects such as the Florida Aquanaut Research Expedition—the first operational test of a movable habitat supported by a surface vessel. NOAA satellite development also made great strides as the first NOAA-owned and -operated Geostationary Operational Environmental Satellites (GOES) were launched in the mid-1970s; the first NOAA-funded polar-orbiting satellites were also launched during the 1970s. In the 1980s, NOAA was reorganized into its present format of Line Offices: National Weather Service, National Marine Fisheries Service, National Ocean Service, Office of Oceanic and Atmospheric Research, and National Environmental Satellite, Data, and Information Service. A sixth Line Office, Program Planning and Integration, was added in 2002.

More information about NOAA's history is available at **www.history.noaa.gov** and **http://celebrating200years.noaa.gov**. Historic images are available in the NOAA Photo Library at **www.photolib.noaa.gov**.

In the last two decades, NOAA scientists have developed new concepts of ecosystem research and management; made discoveries, including the warming of the global ocean; and established the NEXRAD radar system which provides warnings of impending tornados and other severe weather phenomena. NOAA established the Space Environment Center, which revolutionized operational space weather forecasting and prediction methods, launched ever-improving NOAA satellites that monitor weather patterns and other environmental phenomena, and developed moored ocean observation systems that forecast phenomena such as tsunamis and El Niños. NOAA has advanced navigational aids in support of U.S. commerce, and officers of the NOAA Commissioned Corps operate NOAA ships and aircraft in support of NOAA programs from the Arctic to Antarctic and serve throughout the NOAA organization. Recent events have underscored NOAA's role as a critical first responder to environmental disasters, including Hurricane Katrina, the 2004 Indian Ocean tsunami, and the Deepwater Horizon oil spill.

NOAA was built on traditions of public service, accuracy and precision of observation, and scientific integrity. Since its inception, NOAA has combined integrated science, innovation, and dedicated personnel to better understand, improve, and protect our oceans and atmosphere. NOAA will continue on this path, creating an enduring legacy for our children, for the environment, and for our Nation.



CONTENTS

CHAPTER 1 INTRODUCTION

This *Business Operations Manual* (BOM) is designed to provide an understanding of the organization and decisionmaking processes of the National Oceanic and Atmospheric Administration (NOAA). The BOM is a living document, updated at least once annually, to remain current with organizational changes and business processes.

Who Should Use the BOM

The BOM is written for new employees and team members who wish to strengthen their understanding of NOAA's management functions and organizational and strategic structures. The manual provides up-to-date guidelines for aligning business operations with the agency's strategic vision. The BOM is not intended to provide detailed instruction on any one topic. Rather, it provides general information to improve overall understanding of how NOAA operates and a guide to the appropriate source for additional information on specific topics. As the business of doing business is complex in any organization, the BOM aims to provide a user-friendly foundation and context for understanding NOAA's business processes.

Benefits of the BOM

- Provides clear guidelines of NOAA's business practices
- Serves as a reference for both internal and external stakeholders
- Promotes consistent outcomes through standardized processes

How the BOM is Organized

The BOM is organized to describe who and where NOAA is, what NOAA does, and how NOAA works.

CHAPTER 2 NOAA ORGANIZATION NOAA's organizational structure is described in this chapter. The organization implements NOAA's functions and executes NOAA's mission to deliver a wide variety of products and services, and acts as a responsible steward of the Nation's resources.

CHAPTER 3 NOAA OPERATIONS NOAA's operations provide the critical policy, programmatic, and managerial foundation to support NOAA's mission. Following the Functional Model, this chapter provides a discussion of the agency's human capital, physical capital, and policy and administration.

CHAPTER 4 STRATEGIC PLANNING NOAA has a long history of strategic planning. This chapter provides an overview of strategic planning, information about the Next-Generation Strategic Plan (NGSP), and how NOAA's strategic goals and objectives relate to the DOC goals.

CHAPTER 5 STRATEGIC EXECUTION AND EVALUATION NOAA's new process of Strategic Execution and Evaluation (SEE) is outlined in this chapter. The process is the annual roadmap for LOs, SOs, and councils to improve the execution of programs and ultimately, enhance their accountability.

How the BOM is Updated

NOAA's Office of Program Planning and Integration (PPI) maintains the BOM on behalf of NOAA employees. PPI updates the BOM regularly and posts the current version on the PPI website at **www.ppi.noaa.gov**. Additions, changes, and updates recommended by NOAA employees ensure the BOM is as current as possible. Please provide feedback to **strategic.planning@noaa.gov** about information that should be considered for inclusion or deletion from future versions of the BOM.

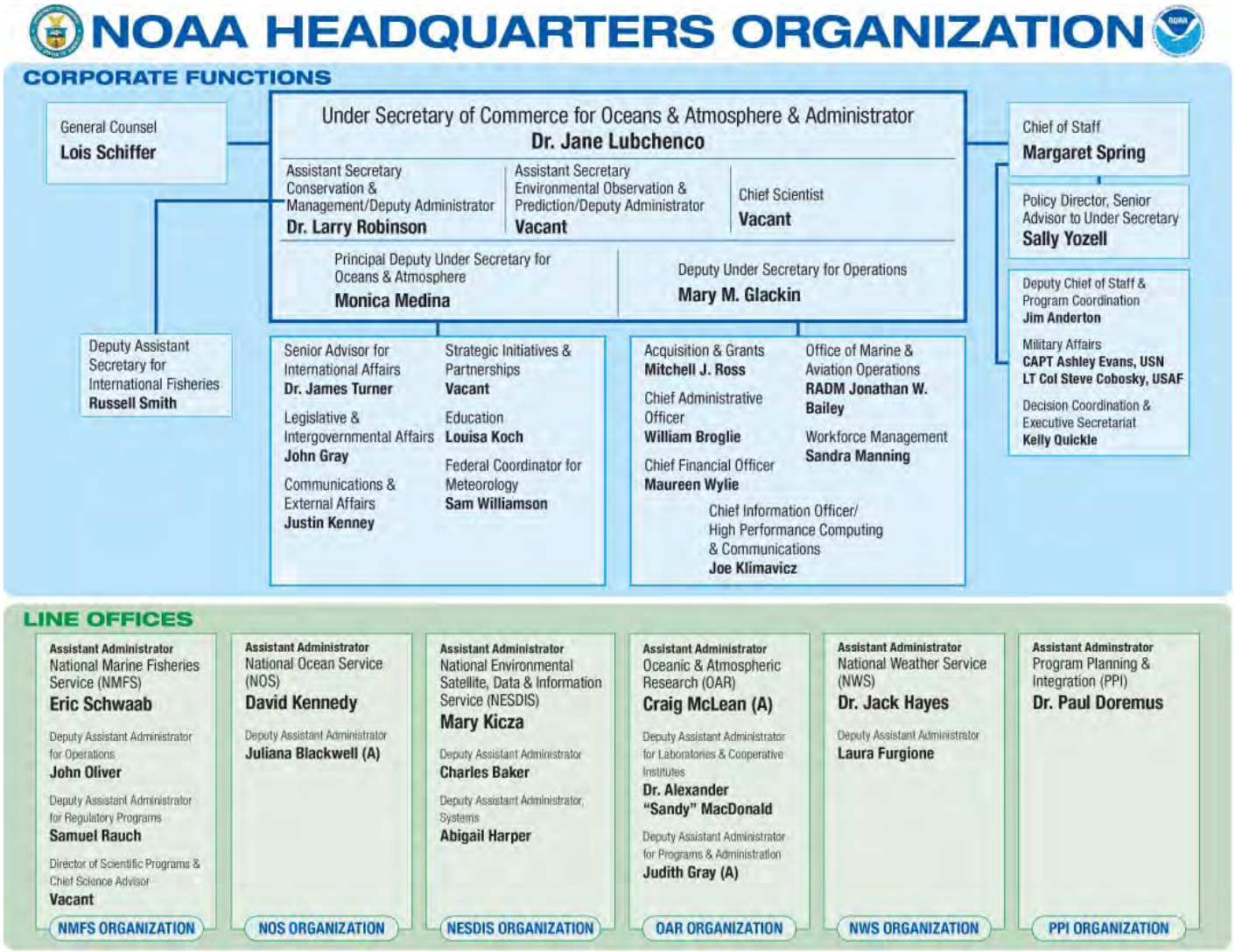
CHAPTER 2 NOAA ORGANIZATION

This chapter highlights the leadership and staff of NOAA, from its headquarters, or corporate functions, to the numerous offices that carry out the agency's day-to-day functions. Staff Offices (SOs) support the entire organization through service and management functions while Line Offices (LOs) provide the delivery of products and services to the public. NOAA has an extensive field structure to meet its critical objectives on a regional and local scale. A snapshot of NOAA's facilities across the Nation highlights the importance of the agency's regional collaboration effort, a national network that coordinates assets within and across regions and in collaboration with external partners. The various offices of NOAA collaborate both internally and externally to coordinate the agency's strategic goals and objectives in partnership with councils, boards, and Federal Advisory Committees (FACs), and through the Executive Decision Process (EDP).

NOAA's up-to-date organizational chart is available at **www.pco.noaa.gov/org/NOAA_Organization.htm**.

In 2010, the NOAA Administrator implemented a new model of management and oversight of NOAA, including a reorganization that aligns its Headquarters structure with the agency's core functions: science, observations and predictions, and conservation and management. The revised organizational order is available at **www.osec.doc.gov/omo/dmp/doos/doo25_5.html** and described below. More information on NOAA's organizational structure is available at **www.noaa.gov/organizations.html**.

Figure 2-1
NOAA's Organizational Chart



Corporate Offices

The **OFFICE OF THE UNDER SECRETARY OF COMMERCE FOR OCEANS AND ATMOSPHERE/NOAA ADMINISTRATOR** provides centralized leadership and executive management to NOAA. Headquarters positions and offices include the Assistant Secretary for Conservation and Management/Deputy Administrator, Assistant Secretary for Environmental Observation and Prediction/Deputy Administrator, Chief Scientist, Principal Deputy Under Secretary for Oceans and Atmosphere, Deputy Under Secretary for Operations, Deputy Assistant Secretary for International Fisheries, Office of General Counsel, Chief of Staff, and Office of Policy. These positions and corporate functions are described below.

The **ASSISTANT SECRETARY FOR CONSERVATION AND MANAGEMENT/ DEPUTY ADMINISTRATOR** provides agency-wide direction regarding fisheries and coastal programs. The Assistant Secretary implements the Administration's stewardship priorities and initiatives and provides general oversight and direction for resource management, conservation, protection, and regulatory activities. The Assistant Secretary chairs the NOAA Ocean and Coastal Council (NOCC).

The **ASSISTANT SECRETARY FOR ENVIRONMENTAL OBSERVATION AND PREDICTION/DEPUTY ADMINISTRATOR** provides agency-wide direction regarding weather, water, climate, and ocean observations and forecasts. The Assistant Secretary implements the Administration's environmental observation, monitoring, prediction, and forecast priorities and initiatives, and provides general oversight and direction for satellites, ocean observing, atmospheric, terrestrial, space weather, and related initiatives. The Assistant Secretary chairs the NOAA Observing Systems Council (NOSC).

The **CHIEF SCIENTIST** provides agency-wide direction regarding research and education. The Chief Scientist implements the Administration's science, technology, and education priorities; provides general oversight and direction for the agency's science, technology, and education activities; and provides for the description, monitoring, and evaluation of NOAA's science enterprise. The Chief Scientist chairs the NOAA Research Council.

The **PRINCIPAL DEPUTY UNDER SECRETARY FOR OCEANS AND ATMOSPHERE (PDUS)** is responsible for the day-to-day oversight and supervision of headquarters staff office functions. The PDUS serves as a key advisor to the NOAA Administrator and represents NOAA in executive-level liaisons and decisionmaking.

The **DEPUTY UNDER SECRETARY FOR OPERATIONS (DUSO)** serves as an advisor to the NOAA Administrator on all program and policy issues and ensures the timely and effective implementation of directives from the NOAA Administrator. The Deputy Under Secretary oversees LO and corporate functions.

The **OFFICE OF GENERAL COUNSEL (OGC)** serves as NOAA's chief legal office and assists NOAA's General Counsel in carrying out the statutory functions of that position. **www.gc.noaa.gov**

The **DEPUTY ASSISTANT SECRETARY FOR INTERNATIONAL FISHERIES** advises the Assistant Secretary for Conservation and Management on international fisheries policy and negotiation matters. The Deputy Assistant Secretary consults with the Assistant Administrator (AA) of the National Marine Fisheries Service and Director of the Office of International Affairs to implement activities related to negotiations and policy development regarding international fisheries conservation and management.

The **CHIEF OF STAFF** is the principal advisor to the NOAA Administrator and provides direct support in formulating and implementing Administration policies and program operations. The Chief of Staff oversees all staff office budgets and related policies.

» The **Office of Policy** reports to the Chief of Staff and provides senior-level policy support, advice, and recommendations on policy planning, direction, and implementation. The Office of Policy serves as liaison and representative of the Office of the Under Secretary, communicating with internal program personnel and external high-level officials at other Federal agencies, the business community, nongovernmental organizations, and state and local governments. This office also serves as liaison and representative of the NOAA Administrator; builds relationships; and assures cooperation with the U.S. Department of Commerce (DOC), Office of Management and Budget (OMB), Office of Science and Technology Policy, and other agencies. The Office of Policy manages and coordinates policy initiatives, programs, and special assignments.

» The **Deputy Chief of Staff** and **Program Coordination Office (PCO)** provides staff support to the Office of the Under Secretary. This office provides staff support, advice, and recommendations to the NOAA Administrator and serves as a focal point for coordinating and preparing various NOAA reports, events calendars, and management meetings. PCO staff represent LOs and program offices to ensure coordination within the agency.

» The **Office of Military Affairs**, which includes the Naval and Air Force Deputies, focuses on facilitating coordination and joint planning efforts with military services and other U.S. Department of Defense (DOD) offices with programs between NOAA LOs and Office of Marine and Aviation Operations (OMAO) and DOD on programs of mutual organizational interest.

» The **Office of Decision Coordination and Executive Secretariat** provides senior staff support to the NOAA Administrator, Assistant Secretaries, Deputy Under Secretaries, and Chief of Staff. The office organizes meetings of the NOAA Executive Council (NEC) and NOAA Executive Panel (NEP), manages incoming correspondence to the NOAA Administrator and senior leadership, establishes policy and procedures related to NOAA-wide written communications, and ensures LO AAs and SO Directors have opportunities to review materials that concern their organizations or functions.

Staff Offices

Staff offices that report to the Principal Deputy Under Secretary are described below:

The **OFFICE OF COMMUNICATIONS AND EXTERNAL AFFAIRS (OCEA)** provides advice and counsel on media, constituent, and intergovernmental relations. **www.noaa.gov/media**

The **OFFICE OF LEGISLATIVE AND INTERGOVERNMENTAL AFFAIRS (OLIA)** coordinates all NOAA contacts with Congress and is responsible for the planning, direction, and coordination of legislative and intergovernmental programs. **www.legislative.noaa.gov**

The **OFFICE OF THE FEDERAL COORDINATOR FOR METEOROLOGY** ensures the coordination of Federal meteorological activities, including the review of national meteorological and oceanographic requirements for services and supporting research, preparation of plans to integrate services and research to accomplish national requirements, and management of the interagency committee structure. **www.ofcm.gov**

The **OFFICE OF EDUCATION (OEd)** provides counsel to NOAA's leadership, LOs, and SOs on policies and programs related to formal and informal education. **www.oesd.noaa.gov**

The **OFFICE OF INTERNATIONAL AFFAIRS (OIA)** advises the NOAA Administrator on international policy issues. OIA is responsible for planning and coordinating NOAA's international programs and establishing policies, guidelines, and procedures for the agency's international programs. **www.international.noaa.gov**

The **OFFICE OF STRATEGIC INITIATIVES AND PARTNERSHIPS** establishes ongoing and formalized methods for identifying current and future market opportunities to support NOAA and DOC interests, as well as the private sector.

Staff offices that report to the Deputy Under Secretary for Operations are described below:

The **ACQUISITION AND GRANTS OFFICE (AGO)** provides a full range of support services for procurement and grants management and serves as the focal point for the administration of NOAA's programs that ensure compliance with Federal, DOC, and NOAA regulations. **www.ago.noaa.gov**

The **OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER (CAO)** provides policy, staff support, and services for facilities; environmental compliance; occupational safety and health; emergency preparedness; information systems; civil rights and equal employment opportunity; records and directives management; and audit and internal control activities, including all Government Accountability Office (GAO) and Office of Inspector General (OIG) audits of NOAA's activities.

The **OFFICE OF THE CHIEF FINANCIAL OFFICER (CFO**) provides policy and staff support for NOAA and DOC related to budget formulation and execution, resource management, financial systems development and operations, and financial accounting. **www.corporateservices.noaa.gov/noaa/cfohome.html**

The **OFFICE OF THE CHIEF INFORMATION OFFICER AND HIGH PERFORMANCE COMPUTING AND COMMUNICATIONS (OCIO)** implements Federal requirements related to the acquisition, management, security, and use of information technology (IT) resources. The OCIO promotes the agency's effective use of IT through NOAA's information architecture; coordinates plans

regarding homeland security, continuity of operations, evacuations, and the safety of NOAA staff and facilities; oversees the agency's Incident Coordination Center; and coordinates the development of NOAA's IT budget. **www.cio.noaa.gov**

The **OFFICE OF MARINE AND AVIATION OPERATIONS (OMAO)** develops plans and administers the use, operation, maintenance, and upgrade of NOAA ships, aircraft, small craft, and associated equipment in support of NOAA's programs and activities. The OMAO administers the NOAA Commissioned Officer Corps. **www.omao.noaa.gov**

The **WORKFORCE MANAGEMENT OFFICE (WFMO)** develops and monitors the implementation of NOAA's human resources management, organization management, and diversity management policies and programs, as well as the administration of payroll activities. **www.wfm.noaa.gov**

Line Offices

NOAA is proposing a new Climate Service to meet the Nation's growing climate needs. More information about the proposed Line Office is available at **www.noaa.gov/climate.html**.

The Line offices represent the operating branches of NOAA and are responsible for managing the delivery of products and services to meet the needs of the agency's customers and stakeholders. NOAA's LOs, together with the SOs, are accountable for aligning their efforts with respect to particular strategic goals and objectives. These offices are described below.

The **NATIONAL MARINE FISHERIES SERVICE (NMFS)** promotes the conservation, management, and sustainable use of living marine resources for commercial and recreational uses. NMFS provides services and products to support NOAA's fisheries management, international fisheries management, constituent services, protected resources and habitat conservation, enforcement, and scientific and technical aspects of the agency's living marine resources programs. **www.nmfs.noaa.gov**

The **NATIONAL OCEAN SERVICE (NOS)** integrates ocean services, coastal ocean, and coastal zone management programs. NOS provides services and products to garner increased use and opportunities within oceans and estuaries to meet the Nation's needs; support the development, appropriate use, and management of the oceans and their resources; promote improvements in marine and coastal commerce; and improve the safety of marine operations and coastal activities. **www.oceanservice.noaa.gov**

The **OFFICE OF OCEANIC AND ATMOSPHERIC RESEARCH (OAR)** plans, organizes, manages, and conducts research and development to meet the agency's strategic goals and objectives. OAR conducts laboratory and extramural research projects relevant to NOAA's environmental information and resource management programs that provide sound technological and scientific information or capabilities on which to base improvements in NOAA's services, products, and policies. **www.research.noaa.gov**

The **NATIONAL WEATHER SERVICE (NWS)** is responsible for an integrated weather services program to monitor and predict the state of the atmospheric and hydrologic environment. NWS delivers climatic, hydrologic, and meteorological services to government, industry, and the general public, including weather warnings and predictions, as well as the exchange of products and forecasts with international organizations. **www.nws.noaa.gov**

The **NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE (NESDIS)** is responsible for NOAA's environmental satellite, data, and information management programs providing the data, information, and services needed to support environmental studies and predictions, resource assessments, data archiving and dissemination, and satellite sensor and technology development. NESDIS develops and operates civilian satellite systems to observe land, ocean, atmospheric, and solar conditions required by governments, commerce, and the general public, and to support commercial space services. **www.nesdis.noaa.gov**

The **OFFICE OF PROGRAM PLANNING AND INTEGRATION (PPI)** provides advice and counsel to the NOAA Administrator on achieving the agency's strategic goals through policy development, planning, and monitoring of agency policies and plans. PPI also manages NOAA's corporate National Environmental Policy Act (NEPA) program. **www.ppi.noaa.gov**

NOAA's Reach

NOAA's responsibilities span the 50 states, Guam, Puerto Rico, and the Pacific Region. Facilities, science centers, and offices are geographically dispersed to respond to local and regional needs for NOAA's products and services. Maps and information about NOAA facilities, staff, programs, and activities are available at **www.legislative.noaa.gov/NIYS**.

Figure 2-2
Map of NOAA Facilities

Goals of Regional Collaboration

- Improve services for the benefit of NOAA's customers
- Increase the value and productivity of partnerships
- Improve stakeholder relations and support
- Improve internal communications and efficiency across NOAA's existing organizational structure
- Develop a more visible and valued NOAA

Additional information about NOAA's Regional Collaboration effort is available at **www.ppi.noaa.gov/reco.html** or by contacting the PPI office.

Regional Collaboration

NOAA's regional collaboration network promotes coordination of NOAA's diverse assets within regions and collaboration with external partners in response to stakeholders' shared regional concerns. Each of the eight Regional Teams (Alaska, Central, Great Lakes, Gulf of Mexico, North Atlantic, Pacific Islands, Southeast and Caribbean, and Western) are led by a senior integrator acting as the Regional Team Lead and assisted by a full-time Regional Coordinator.

Vision and Goals

The vision for NOAA's regional collaboration effort is to facilitate multidisciplinary planning and execution of high priority regional needs, mobilize knowledge and capabilities across the agency, and engage stakeholders to:

- Present NOAA mission priorities at appropriate geographic scales;
- Address distinct regional challenges related to NOAA's mission;
- Leverage current and emerging regional partnerships to respond to stakeholder needs; and
- Enhance NOAA's value to and impact on the regions.

NOAA has established goals in support of integrated, regionally-tailored implementation of NOAA-wide programmatic priorities that provide a more systematic approach to both internal and external communications.

Guiding Principles

The guiding principles for regional collaboration offer an operational foundation for the effort:

- NOAA shall advance its goals for regional collaboration through existing authority and accountability structures. This effort does not entail changes to NOAA's organizational structure;
- NOAA's products and services shall be science-based and stakeholder-driven. The overarching purpose of regional collaboration is to improve NOAA's productivity and value to customers; and
- Regional collaboration participants shall strive to identify, acknowledge, and apply NOAA's full range of capabilities within and across regions to improve NOAA's productivity and value to customers.

Geographic Framework

A NOAA-wide geographic framework was designed to engage stakeholders and partners and integrate across NOAA at regional scales, as depicted in Figure 2-3. Regional framework criteria include public perception of regional identity, alignment with existing NOAA capabilities and regional partners, ecosystem-related boundaries, Federal and state jurisdictions, size-manageability of regions, and the geographic dimensions of programmatic priority areas. The geographic framework is revisited as necessary to ensure it remains responsive to furthering the goals of NOAA's regional collaboration effort.

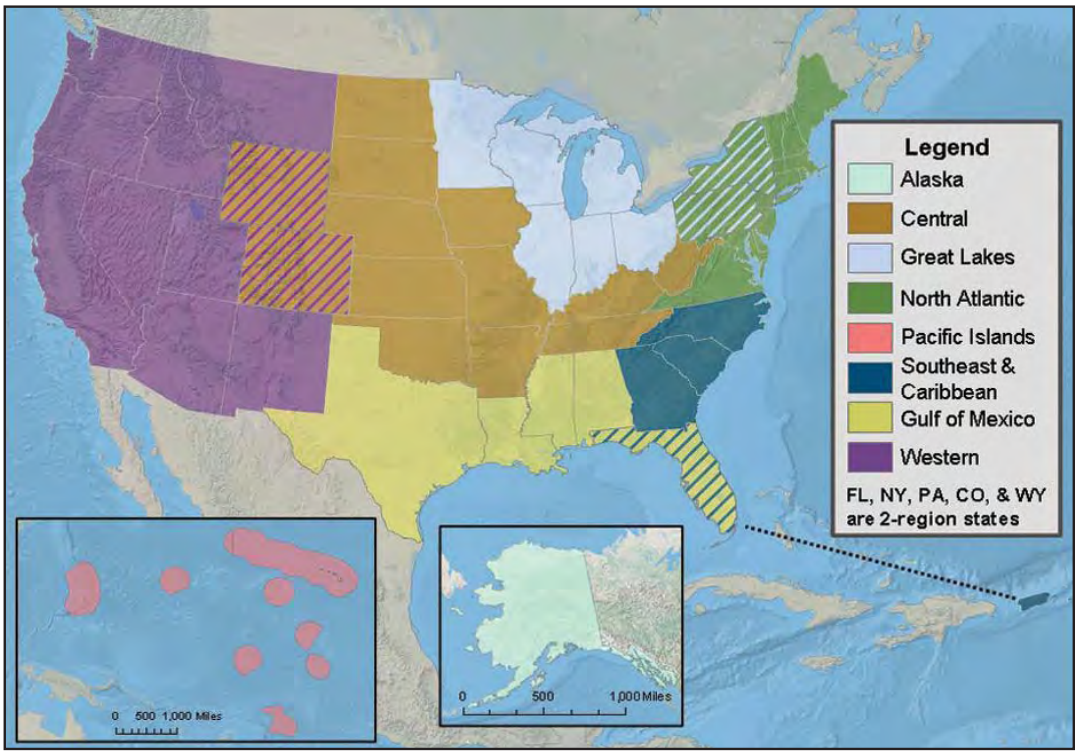


Figure 2-3
Regional Collaboration Geographic Framework

Roles and Responsibilities

NOAA advances regional collaboration through collaborative networks that link line and staff offices on regional and national bases. The effort operates through existing authority, accountability, and organizational structures. However, coordinating bodies have been established to advance and implement Regional Collaboration. The lead teams responsible for the implementation of regional collaboration are described below.

The **EXECUTIVE OVERSIGHT GROUP (EOG)** serves as the principal advocate for regional collaboration within NOAA, representing NOAA's LO and SO leadership, and establishing and overseeing progress toward the goals of the effort.

PPI and the **OFFICE OF POLICY** serve as organizational focal points for the Regional Collaboration effort. NOAA's Policy Director serves as the Chair of the EOG, and the National Regional Coordinator supports the integration of the Regional Collaboration effort into the agency's business practices.

REGIONAL COLLABORATION TEAMS are inter-LO collaborative groups that facilitate interactions between regional stakeholders and NOAA headquarters to improve NOAA services and value in regions. Led by an EOG-selected Regional Team Lead and assisted by a full-time Regional Coordinator, Regional Collaboration Teams collectively maintain and develop relationships with key partners of NOAA's mission in the region, and engage with regional stakeholders to understand their needs. Regional Collaboration Teams synthesize regional needs and capabilities into a list of achievable priorities. The Teams communicate these priorities through NOAA's existing organizational structure to inform strategic planning for the agency, and support integrated, regionally-tailored implementation of NOAA-wide programmatic priorities.

Communications

The Teams comprising NOAA's regional collaboration effort work together at regional and national levels to ensure stakeholder needs are being heard across the agency, and collaborative opportunities with partners are maximized. Information is transmitted through informal networking by LO and Goal Team representatives within and across the Regional Collaboration Teams and through formal written documents, including an annual plan, quarterly reports, and standing meetings among the teams. These interactions support planning and execution functions in NOAA by facilitating regionally-coordinated, near-term and future projects to meet stakeholder needs in the region.

The EOG and each Regional Collaboration Team communicate formally through standing meetings. These meetings occur both separately and as periodic joint meetings. Regional Team Leads and the Coordinators also meet with each other and/or PPI to ensure full communication among Regional Collaboration Teams, and between the Regional Collaboration Teams and the EOG.

EOG members are encouraged to meet regularly with their LO representatives on the Regional Collaboration Teams. These meetings inform the membership of current regional activities and promote cross-regional integration within a LO. Information gained from such interactions provide a regionally-integrated perspective when developing LO strategic plans and annual plans. LO representatives also serve as links to and from their respective LOs on a continuing basis.

Councils and Boards

NOAA's councils and boards provide leadership and coordination across the agency for select high-interest and high-visibility functions. The councils provide a forum for reviewing and developing policy and procedures for technical and scientific issues, guide resource utilization, and simplify complex issues into recommendations for senior leadership. NOAA's councils are an entry point for the EDP (discussed later in this chapter) and serve as coordinating bodies for achieving the goals and objectives of the Next Generation Strategic Plan (NGSP) (discussed in Chapter 4). NOAA's boards review and approve capital investment proposals as part of budget formulation and major project review processes.

Terms of Reference and contacts for all NOAA Councils and Boards are available at **www.dco.noaa.gov**.

Table 2-1 Council Types

STRATEGY COUNCILS	OPERATIONAL COUNCILS AND BOARDS
Ocean and Coastal Council	International Affairs Council
Research Council	Education Council
Observing Systems Council	Program Management Council
	NOAA Fleet Council
	Human Capital Council
	Chief Information Officer Council
	Chief Financial Officer/Chief Administrative Officer (CFO/CAO)
	Strategy and Evaluation Council*
	Facilities Investment Management Board
	NOAA Information Technology Review Board
	Executive Oversight Group

*proposed

STRATEGY COUNCILS provide analyses and recommendations related to the NOAA functions that require multi-LO leadership and guidance. These councils are advisory bodies that support NOAA's decisionmakers, including the NOAA Administrator, in managing and overseeing strategic agency priorities. The chairs of the three strategy councils are appointed by the President and confirmed by the Senate, and report directly to the NEC.

The **NOAA Ocean and Coastal Council (NOCC)** serves as the principal advisory body to the NOAA Administrator and focal point for the agency's ocean activities and interests. The purposes of the NOCC include the coordination of ocean and coastal activities across NOAA, NOAA's activities to implement the priorities of the National Ocean Policy and its representation in the new ocean governance structure, and NOAA's participation in the interagency National Oceanographic Partnership Program (NOPP). **http://oceanservice.noaa.gov/roundtables/supp_ocean_council.html**

The **NOAA Research Council** serves as the principal advisory body to the NOAA Administrator and focal point for the agency's research activities and interests. The council provides corporate oversight to ensure that NOAA's research activities are of the highest quality, meet long-range societal needs, take advantage of emerging scientific and technological opportunities, and shape a forward-looking research agenda. The mission of the Research Council is to ensure that all NOAA services are based on sound science and that all NOAA research programs and long-term plans are consistent with its mission and strategic plan by coordinating the Enterprise Objective for a holistic understanding of the Earth system through research and recommendations from National Research Council (NRC) and NOAA Science Advisory Board (SAB) research reviews. **www.nrc.noaa.gov**

The **NOAA Observing Systems Council (NOSC)** serves as the principal advisory body to the NOAA Administrator and focal point for the agency's observing system activities. This council coordinates observational and data management activities across NOAA, proposes priorities and investment strategies for observation-related initiatives, identifies programs that might benefit most from integration, and coordinates NOAA's enterprise objective for accurate, reliable data from integrated Earth observations. **www.nosc.noaa.gov**

OPERATIONAL COUNCILS AND BOARDS provide NOAA-wide management oversight.

The **NOAA International Affairs Council** (**IAC**) serves as the principal policy and decisionmaking body on NOAA's international efforts. Through this council, NOAA's international affairs are managed using matrix management principles to ensure coordination, cooperation, and communication on international activities, to enhance the visibility of NOAA's international activities and accomplishments, and to coordinate the enterprise objective for international partnerships and policy leadership. The IAC provides the necessary framework to realize a "one NOAA" approach to international affairs. **www.international.noaa.gov/council.htm**

The **NOAA Education Council** provides a forum for discussing ideas and proposals for educational activities and priorities across NOAA's organizations. In conjunction with NOAA's OEd, the council develops and monitors the implementation of NOAA's Strategic Plan for Education and makes recommendations to NOAA management on all aspects of NOAA's educational activities. This council coordinates NOAA's enterprise objective for an engaged and education public for informed environmental decisions. **www.oesd.noaa.gov/council/index.html**

The **Program Management Council** (**PMC**) assists NOAA in meeting the Federal requirements for corporate major project reviews. Title V of the Federal Acquisition Streamlining Act of 1994 requires that agencies establish measurable cost, schedule, and performance goals for all major acquisition programs. OMB's Circular A-11 requires that new investments be justified on the basis of addressing shortfalls, and that projects demonstrate satisfactory progress toward cost, schedule, and performance goals. The council is chaired by NOAA's DUSO, oversees selected NOAA projects, and helps coordinate NOAA's enterprise objective to provide accurate, reliable data from integrated Earth observations. Its oversight includes monthly assessments of performance and acquisition milestones.

The **NOAA Fleet Council** serves as a principal advisory body to the NOAA Administrator for the management of agency ship and aircraft platforms, including their missions, naming, funding, staffing, safety, maintenance, repair and replacement, and major equipment onboard. This council helps coordinate NOAA's enterprise objective for accurate, reliable data from integrated Earth observations.

The **Human Capital Council (HCC)** brings together all NOAA functions associated with people to advance a diverse, highly-skilled, motivated, and effective workforce that can fulfill the agency's mission. This council provides the principal forum to discuss and address issues affecting workforce excellence across NOAA. The council focuses on setting the strategic direction for human capital throughout NOAA by coordinating the Enterprise Objective of a diverse, evolving workforce, and recommends strategies to ensure human capital issues are considered in management decisionmaking.

The **Chief Information Officer Council (CIO Council)** advances the management and utilization of IT to achieve NOAA's corporate goals and objectives, helping coordinate NOAA's enterprise objective for a modern IT infrastructure. The CIO Council accomplishes this by establishing enterprise-wide IT policies, procedures, standards, and practices. Best practices promulgated by the DOC, OMB, and the

Federal CIO Council are coordinated and integrated by this council. In addition, the CIO Council oversees NOAA-wide IT projects and operations funded via organizational cost distribution as well as other projects tasked by the NOAA CIO or NOAA management. The Council approves and prioritizes the NOAA OCIO budget, including projects and services supported by NOAA corporate funds.

The **Chief Financial Officer/Chief Administrative Officer Council (CFO/CAO Council)** is the decisionmaking or recommending body on NOAA-wide financial and administrative functions that are the responsibility of NOAA's CFO, CAO, Director of Acquisition and Grants, and Director of Workforce Management. It coordinates NOAA's Enterprise Objective for a high performing organization.

The *proposed* **Strategy and Evaluation Council** is the primary forum for discussing NOAA's long-term goals, the strategy to achieve those goals, and the means by which NOAA will evaluate and measure its success. It facilitates coordination and integration across NOAA's Goals and between Goals and Enterprise Objectives. In conjunction with PPI, the Council aids in the implementation of the NGSP and makes recommendations to NOAA management to aid in the development of the Annual Guidance Memorandum (AGM). Monitoring and providing feedback on the execution of the SEE process, including its evaluation framework, is an integral part of the Council's purpose.

The **Facilities Investment Management Board** reviews all proposed major investments in facilities for alignment with and support of NOAA's Facilities Master Plan, mission, and goals and objectives. This board coordinates NOAA's enterprise objective for modern, safe, and sustainable facilities.

The **NOAA Information Technology Review Board** (**NITRB**) ensures that proposed investments contribute to NOAA's strategic vision and mission, employ sound IT investment methods, comply with NOAA systems architectures, and provide the highest return-on-investment with acceptable project risk. This board coordinates NOAA's enterprise objective for a modern IT infrastructure. Establishment of the NITRB supports IT management improvement goals of the Clinger-Cohen Act of 1996, the Paperwork Reduction Act of 1995, and related implementing regulations and guidance. **www.cio.noaa.gov/IT_Groups/noaa_cio_nitrb.html**

The **Executive Oversight Group** (**EOG**) provides oversight and guidance for corporate-level aspects of the regional collaboration effort; ensures the regional collaboration effort has the resources and the corporate commitment it needs to achieve its goals; and provides recommendations to NOAA corporate leadership to advance those goals.

Federal Advisory Committees

Federal Advisory Committees (FACs) provide advice and guidance to NOAA on specific functional areas. The Federal Advisory Committee Act (FACA) requires that certain procedures be followed when a Federal agency seeks consensus advice from a group external to the Federal Government. The FACA provides uniform standards for the operation of advisory committees in the Executive Branch and ensures public access to and knowledge of their deliberations.

The **ADVISORY COMMITTEE ON COMMERCIAL REMOTE SENSING** advises NOAA on matters relating to the U.S. commercial remote-sensing industry and NOAA's activities to carry out the responsibilities established in the Land Remote Sensing Policy Act of 1992, particularly the Act's provisions related to licensing of private remote sensing space systems. This FAC has 13 members (the charter requires 12–15). **www.accres.noaa.gov**

The **MARINE PROTECTED AREAS FEDERAL ADVISORY COMMITTEE** was established by Executive Order (EO) 13158, Marine Protected Areas. The committee establishes policy for protecting "the significant natural and cultural resources within the marine environment for the benefit of present and future generations by strengthening and expanding the Nation's system of marine protected areas." This FAC has 25 members. **www.mpa.gov/fac**

The **MARINE FISHERIES ADVISORY COMMITTEE** was established by the Secretary of Commerce in 1971 to advise the NOAA Administrator on all living marine resource matters that are the responsibility of DOC. This committee advises and reviews the adequacy of living marine resource policies and programs to meet the needs of commercial and recreational fisheries, as well as environmental, state, consumer, academic, tribal, governmental, and other national interests. **www.nmfs.noaa.gov/ocs/mafac**

The **HYDROGRAPHIC SERVICES REVIEW PANEL** was established by the NOAA Hydrographic Services Improvement Act to provide advice to the NOAA Administrator on all authorities related to hydrographic surveys. The scope of this FAC includes hydrographic surveying, nautical charting, water level measurements, and geodetic measurements, as well as operations, research, development, and dissemination of these data. **www.nauticalcharts.noaa.gov/ocs/hsrp/hsrp.htm**

The **SEA GRANT REVIEW PANEL** was established in 1976 and is authorized by statute (33 U.S.C. § 1128) to advise the Secretary of Commerce, NOAA Administrator, and NOAA Sea Grant Director on the direction, operations, and performance of the National Sea Grant College Program. The panel comprises 15 members with expertise in marine science and with diverse backgrounds related to ocean, coastal, and Great Lakes resources. **www.seagrant.noaa.gov**

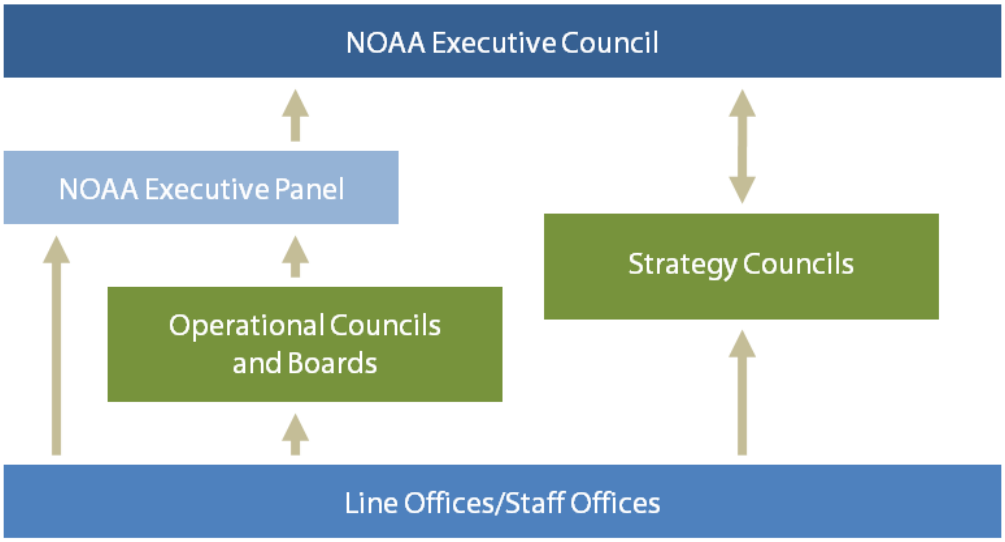
The **SCIENCE ADVISORY BOARD (SAB)** is an external 15-member FAC composed of eminent scientists, engineers, resource managers, and educators which advises NOAA on long- and short-range strategies for research, education, and the application of science to resource management, as well as environmental assessment and prediction. The SAB assists NOAA in maintaining a current understanding of scientific issues critical to the agency's mission. Members are appointed by the NOAA Administrator to serve a three-year term with the possibility of a second term. **www.sab.noaa.gov**

Executive Decision Process

NOAA's Executive Decision Process (EDP) provides a framework for systematic management, review, and oversight of NOAA's operations. The purpose of the EDP is to advise the NOAA Administrator before final decisions on NOAA-wide policy (including, but not limited to, budget, policy, procedure, organizational direction, organizational assessments, and resolving conflicts) are made. This process provides the forum through which NOAA's senior management provide advice and counsel on high-level operation and management issues. The EDP enhances awareness of NOAA-wide issues, promotes integrated planning and evaluation, and creates greater transparency of senior leadership decisions.

More information about the EDP is available at **www.dco.noaa.gov/edp.html**.

Figure 2-4
NOAA's Executive Decision Process



NOAA Executive Council

The NEC is the highest level executive management body within NOAA. The NEC provides information and advice to the NOAA Administrator regarding high-level corporate strategy and policy issues, including NOAA priorities, resource requirements, and future direction for the agency as a whole. NEC members are listed in Table 2-2. More information on the NEC is available at **www.dco.noaa.gov/nec.html**.

NOAA Executive Panel

The NEP is a senior-level body within NOAA that provides information and advice to the DUSO on issues related to NOAA's daily operations and management. The NEP ensures that issues, programs, and briefings are condensed into understandable terms and recommendations for decisions before they are presented to the NEC. The NEP also oversees the SEE process (discussed in Chapter 5). NEP members are listed in Table 2-2. More information on the NEP is available at **www.dco.noaa.gov/nep.html**.

Table 2-2 NEC and NEP Membership

NEC MEMBERS	NEP MEMBERS
NOAA Administrator (Chair)	Deputy Under Secretary for Operations (Chair)
Assistant Secretary for Environmental Observation	Deputy Chief of Staff
Assistant Secretary for Conservation and Management	Deputy General Counsel
NOAA Chief Scientist	NOS Deputy Assistant Administrator
Principal Deputy Under Secretary	NMFS Deputy Assistant Administrator
Deputy Under Secretary for Operations	OAR Deputy Assistant Administrator
Chief of Staff	NWS Deputy Assistant Administrator
General Counsel	NESDIS Deputy Assistant Administrator
NOS Assistant Administrator	Director of Policy
NMFS Assistant Administrator	PPI Assistant Administrator
OAR Assistant Administrator	Chief Information Officer
NWS Assistant Administrator	Chief Financial Officer
NESDIS Assistant Administrator	Chief Administrative Officer
	Director of Acquisitions and Grants
	Director of Office of Marine Aviation Operations
	Director of Workforce Management
	Director of Communications
	Director of Legislative Affairs

CHAPTER 3 NOAA OPERATIONS

NOAA's business operations provide the critical policy, programmatic, and managerial foundation to support NOAA's mission. Following the Functional Model (see Appendix C), this chapter discusses human capital, physical capital, and policy and administration.

HUMAN CAPITAL Human capital is the collective hearts and minds of the organization—NOAA's expertise, values, wisdom, and relationships. NOAA's people are the foundation of the agency's long-standing record of scientific, technical, and organizational excellence, thereby ensuring continuity, reliability, and innovation in the diverse products and services valued by our many customers and stakeholders. The quality of human capital can be understood as the fit of expertise to duty, and individual performance with respect to tasks, as well as professional satisfaction with the work that individuals perform.

PHYSICAL CAPITAL Physical capital is the utilities or infrastructure of the agency—including satellite systems, ships, buoys, aircraft, research facilities, and high-performance computing—which enables all other functions to be conducted. The quality of physical capital can be measured by how well it meets design requirements and user needs, and if it is acquired and maintained on time and within budget.

POLICY AND ADMINISTRATION The successful conduct of all NOAA's functions requires skilled leadership to coordinate activities and organize people across the agency, as well as with agency partners. Policy and administration align the agency to the mission and guide the agency toward the outcomes most desired by stakeholders.

Workforce Management

NOAA's employees are its most important asset. Their expertise, creativity, commitment, diversity, and innovation are vital to the accomplishment of NOAA's mission and the Nation's interests. The Workforce Management Office (WFMO) provides policies, programs, and processes that facilitate the recruitment, hiring, development, and retention of a diverse, highly-skilled, motivated, and effective workforce capable of accomplishing the agency's mission. NOAA's workforce is greater than just NOAA employees. It also includes contractors working on- and off-site, grantees, and cooperators.

More information about WFMO is available at **www.wfm.noaa.gov.**

The WFMO provides NOAA-wide leadership to workforce management functions, including strategic human capital planning, labor management, labor relations, employee relations, performance management and incentive awards, executive resources, training and distance learning, and career development. Policy functions include family-friendly workplace practices such as telework, and Commerce Alternative Personnel System policy guidance. The WFMO serves as the operating human resources (HR) office for NOAA, providing a full range of recruitment, staffing, classification, and management advisory services; retirement and benefits counseling; personnel and payroll processing; and a partnership with management in carrying out NOAA's mission. There are four offices within the WFMO:

» Policies and program management;

» Corporate and strategic human capital initiatives, including the Human Capital Planning Division and Learning Resources Division;

» Client services, including Ecosystems, Weather, and Oceans Client Services Divisions; and

» IT systems.

The WFMO provides NOAA corporate policy and program management with its pay and leave, staffing, position classification and position management, alternative dispute resolution, the Demonstration Project, and HR information management and automation functions. These services result in such products as referral lists of well-qualified applicants for vacancies, NOAA Administrative Orders (NAOs) covering HR functions and services, online resource guides, and policies for all WFMO functional areas.

The WFMO is responsible for supporting strategic human capital management, including succession planning, workforce planning and analysis, competency identification and assessment, strategic corporate recruitment, and leadership and management development. It undertakes and oversees initiatives and provides consultations in managing diversity and understanding differences, quality of work-life issues, and organization development. These services result in such products as the Leadership Competencies Development Program, NOAA Leadership Seminar, NOAA Rotational Assignment Program, and appointment of Presidential Management Fellows; NOAA's Human Capital Scorecard; competency assessments; and policies to support NOAA's management of human capital and diversity. WFMO leads the HCC, which brings together all functions associated with NOAA staff. The council serves as the principal forum through which issues affecting the workforce across NOAA are discussed and addressed. The Council considers such challenges as setting the strategic direction for human capital, and recommending strategies for making human capital a key element in management decision-making. The HCC is directly responsible for the development and implementation of NOAA's *Strategic Human Capital Management Plan*.

The Commerce Learning Center Provides:

- Self-paced web-based courses
- Required web-based courses
- Registration for instructor-led classes
- A record for all training for NOAA employees

Commerce Learning Center
You Make Commerce Work

New NOAA employees can access employee information, including information on staff roles and responsibilities, benefits, and entitlements at **www.wfm.noaa.gov/new_employee/index.html.** The Commerce Learning Center is a Learning Management System that is overseen by DOC in collaboration with NOAA. More information about the Commerce Learning Center is available at **https://doc.learn.com**.

Facilities Management

NOAA's real property inventory includes approximately 800 buildings, of which 55 percent are DOC-owned and 45 percent are DOC-leased or assigned by the U.S. General Services Administration (GSA). These facilities are located throughout the 50 states, Guam, Puerto Rico, and the Pacific region. The scope of NOAA's facilities management encompasses all new construction; major and minor renovation and repair; and operations and maintenance of real property inventory, facilities physical security, and environmental compliance projects affecting facilities.

The NOAA Facilities Program comprises the following interrelated functional areas:

Capital planning and budgeting

» Long-range facilities program planning

» Policy development

» Program execution

Asset management and maintenance

» Operations and maintenance

» Integrated facility condition assessment

» Policy and oversight of real property acquisition

» Operating leases

» Asset management services

Project planning and management

» Planning and life-cycle project management

» Construction project management

» Policies and processes for project planning, project management, and progress/performance metrics (including earned value management reporting)

» Coordination of the development of alternatives

» Selection of service provider

» Acquisition strategy

» Executive level oversight, coordination, and reporting for all major construction projects

Services Provided

» A safe operating environment with efficient and effective support services

» A policy of procedures and valuation criteria that aligns Real Property to achieve NOAA's Overall mission

» Integration of facilities investment decisions into the Strategy, Execution and Evaluation (SEE) process

NOAA Facilities Program Business Model

The NEP adopted the Facilities Program Business Model in 2004. It enables effective management of the NOAA facilities program and compliance with EO 13327 (Federal Real Property Asset Management) and OMB Circular A-11, and provides a framework for facilities management. Specific guidance on the management of NOAA facilities is contained in the *Facilities Capital Planning and Project Management Manual* and the Project Management Process found at **www.corporateservices.noaa.gov/~rpflo/services.html**.

The Facilities Program Business Model builds on NOAA's strategic objectives relating to facilities, tying them to strategic and tactical initiatives. Decisions concerning courses of action at the strategic level are driven by portfolio level analysis, mission requirements, and NOAA corporate direction, while tactical-level execution is driven by facilities condition, mission criticality, usage, and overall costs in accordance with EO 13327. Each model element is defined below.

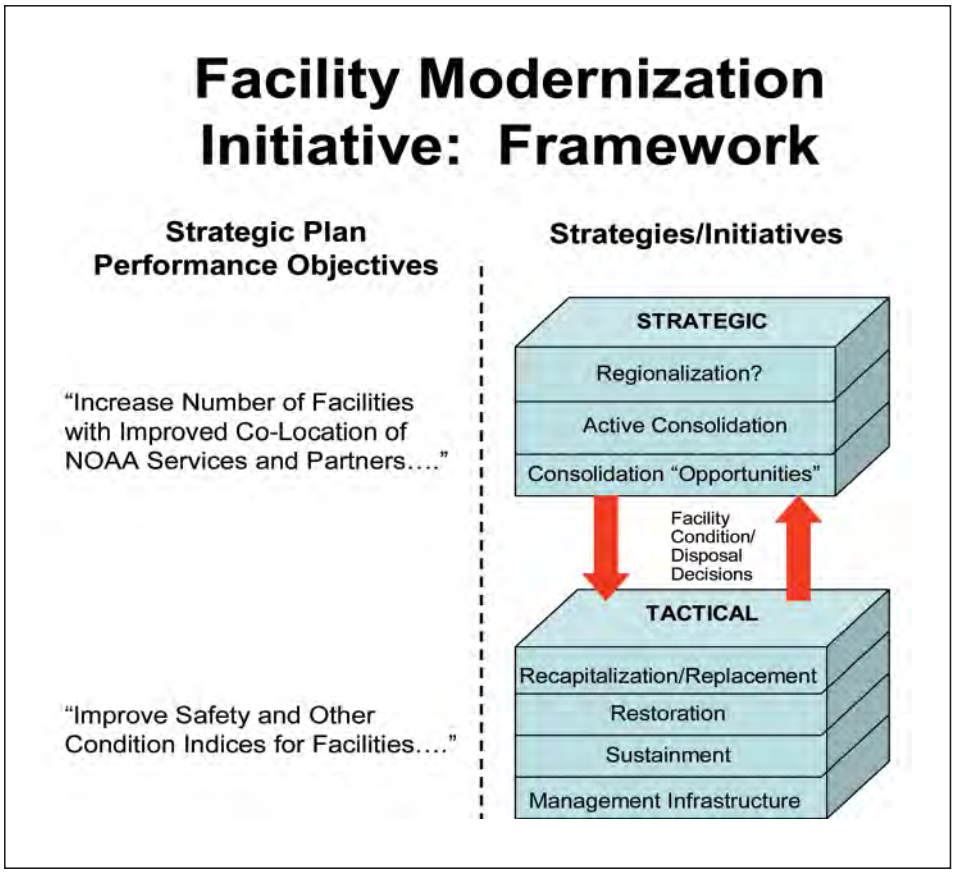


Figure 3-1
Facility Modernization Initiative: Framework

REGIONALIZATION/CONSOLIDATION Supporting better integration of service delivery through enhanced co-location (across NOAA and with partners), and achieve cost efficiencies by reducing operations and maintenance costs.

RECAPITALIZATION/REPLACEMENT Recapitalizing/replacing existing NOAA facilities in order to maintain a modern facilities inventory, responsive to increasing energy costs and changing standards and missions. [General target: Recapitalize at 80 percent of a facility's useful life, unless earlier replacement is required due to natural disasters or other events, or unless facility condition assessment indicates a longer useful life.]

RESTORATION Restoring NOAA facilities (owned and leased) to "fair," "good," or "excellent" facility condition, and addressing the most critical facility condition issues.

FACILITY CONDITION INDEX A calculation dividing the total cost of required repairs by the current replacement value for the facility, as listed in Figure 3-2.

Figure 3-2 Facility Condition Index

$$\text{Facility Condition Index (FCI)} = 1 - \frac{\text{Total Cost of Facility Repairs}}{\text{Current Replacement Value (CRV) of Facility}}$$

Table 3-1 Facility Condition

Condition	FCI (%)
Excellent	.95
Good	.90
Fair	.85 to .90
Poor	.80 to .85
Unacceptable	<.80

SUSTAINMENT Maintaining safe, secure, and operational working environments. Ensuring appropriate level of annual investments in routine maintenance and repairs to maintain facilities and sustain useful life of facilities.

MANAGEMENT INFRASTRUCTURE Establishing and maintaining organizational capabilities, governance policies and processes, and performance measurement systems to effectively and efficiently manage NOAA's real property portfolio and ensure compliance with all applicable Federal, state, and local standards.

Facilities Modernization Plan

NOAA publishes a *Facility Modernization Plan* (FMP) annually to integrate various initiatives—including homeport planning and components of the business model—into a cohesive document. The current FMP is available to NOAA staff at **https://secure.cao.noaa.gov/2010-facility-modernization-plan.pdf**.

The FMP establishes a foundation for addressing challenges and promoting excellence in NOAA's facilities consistent with the plan. It reflects the efficiencies established by EO 13327 and the President's Management Agenda, and is designed to promote excellence in NOAA's programs by attracting and retaining a high-performing workforce.

The following real property goals form the basis of this plan:

» Ensure real property acquisition and sustainment are integral to NOAA mission planning and programming;

» Align real property assets to strategic requirements and NOAA objectives, including support of regional collaboration, NOAA fleet homeporting, and evolving requirements; and

» Sustain and modernize existing real property to achieve appropriate condition levels and ensure NOAA's property is safe, secure, environmentally-sound, and cost-effective.

The FMP includes a discussion of real property management challenges and strategies, inventory characteristics, roles and responsibilities, and decisionmaking processes. It recommends levels of investment in the program, and targets projects as the basis of a long-range capital investment plan. It is dynamic and evolutionary, to reflect both the changing portfolio of NOAA's real property assets and evolving needs of NOAA's mission managers. The FMP recommends sustainment levels to maintain facility condition levels as a guide for LOs, SOs, and programs. The plan also targets raising NOAA's overall facility condition to "good" or "excellent" levels within the next 10–15 years, and envisions recapitalizing facilities at an average age of 50 years to address obsolescence and modernization.

Roles and Responsibilities

Additional information on NOAA Facilities Management, including copies of the Facilities Modernization Plan and the Facilities Capitol Planning and Project Management Manual, is available at **www.corporateservices.noaa.gov/~ocao/index.html**.

The **OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER (OCAO)** provides planning guidance; establishes priorities with the input of LOs and SOs for restoration and recapitalization investments; executes restoration and recapitalization projects as "Provider of Choice" to optimize investments in strengthening NOAA's facility program; and provides oversight and corporate reporting on the execution and sustainment of corporate complexes.

LOs/SOs work with the OCAO to operate and manage NOAA facilities in compliance with applicable regulations and guidelines.

DOC'S ACQUISITION REVIEW BOARD approves all major projects before inclusion in the President's budget request.

NOAA GENERAL COUNSEL (GC) reviews legal matters and NEPA compliance issues as part of the key decision point (KDP) process.

The **SAFETY COUNCIL** reviews relevant facilities issues.

The **CFO/CAO COUNCIL** provides general overview and guidance on facilities policy and procedural matters not requiring NEP or NEC review.

The **FIMB** assesses all proposed major investments in accordance with NAO 217-104.

Additional information about Facilities Management roles and responsibilities is provided in Table 3-2.

Table 3-2 Facilities Management Roles and Responsibilities Related to SEE.

	Strategy	Execution	Evaluation
Corporate functions (OCAO)	Provides corporate guidance and solicits input for sustaining, restoring, or recapitalizing NOAA facilities Conducts business case analyses and economic analyses of alternative solutions to support capital investment planning process Develops NOAA corporate sustainment plan to reflect NOAA-owned corporate complex budget within facilities budget line Develops NOAA corporate restoration and recapitalization priorities to reflect investment decisions in facilities budget line	Executes corporate complex spending plan for sustainment Executes projects for restoration and recapitalization and provides quarterly execution reporting	Assesses ability of facilities enterprise to meet NOAA's strategic needs Evaluates efficiency and effectiveness of investments across NOAA's facilities portfolio Conducts targeted studies that provide recommendations to improve management, usage, and fulfillment of new and existing requirements Provides standards and guidance for facilities investment, management, and inventory that promote external, peer- and self-evaluation practices
Long-term Goals (LOs, SOs)	Identifies sustainment, restoration, or recapitalization requirements for facilities Finalizes LO spending plan for sustainment based on NOAA budget guidance reflected in LO budget Incorporates sustainment requirements in implementation plans Collaborates with OCAO to develop and identify planned LO-funded restoration projects and OCAO support required Submits recommended restoration and recapitalization priorities to OCAO	Finalizes and executes LO spending plan for sustainment and submits plan and quarterly execution reports to OCAO Serves on OCAO-led inte¬grated project teams for restoration and recapitalization	Identifies requirements of LO enterprises and validates stated needs of program(s) Monitors and adapts activities to maximize effective and efficient utilization of and maintenance of NOAA buildings and structures Conducts internal evaluations and participates in external and corporate evaluation efforts
Enterprise Objectives (LOs, SOs)	Assists LOs in obtaining and providing information to OCAO	Serves on OCAO-led integrated project teams	Assesses current and anticipated needs of projects and sub-activities to ensure requirements are properly indentified and addressed Participates in evaluations and reviews and provides user and stakeholder input

NOAA Fleet

More information about NOAA's Fleet is available at **www.omao.noaa.gov/fleet.html**.

NOAA owns and operates a wide variety of specialized aircraft and ships that play an integral part in achieving its environmental and scientific missions. At present, the NOAA fleet includes 13 aircraft and 18 ships, operated by OMAO.

Formulation of policies and procedures, development of plans and budgets, and execution of annual allocation plans are conducted by OMAO personnel primarily located in Silver Spring, Maryland, and Tampa, Florida. Details of the capabilities and organization of OMAO and NOAA's Aircraft Operation Center are available at **www.omao.noaa.gov** and **www.aoc.noaa.gov**.

Aircraft Services Program

Figure 3-3
NOAA WP-3D
Hurricane Hunter

NOAA's aircraft fleet provides unique, specialized platforms for the collection of a wide range of airborne data. The aircraft collect environmental and geographic data essential to hurricane and other weather and atmospheric research, provide aerial support for coastal and aeronautical charting and remote sensing projects, conduct aerial surveys for hydrologic research that helps predict flooding potential from snow melt, and provide support to fisheries research and marine mammal assessment programs.

The first hurricane aircraft was acquired by the U.S. Weather Bureau in 1961 to support its National Hurricane Research Project. Since the establishment of NOAA in 1970, NOAA has upgraded and maintained aircraft systems to serve the agency's requirements for ocean, atmospheric, and earth surface observations. Currently, this fleet includes 13 aircraft of six different model types.

NOAA's aircraft operate throughout the United States and around the world, over open oceans, mountains, coastal wetlands, and Arctic pack ice. The versatile aircraft are uniquely modified and instrumented to provide scientists with airborne platforms necessary to collect the environmental and geographic data to support essential NOAA products, services, and research.

NOAA's aircraft operations are supported by a combination of personnel systems, including Federal civilian employees and officers of the NOAA Corps, NOAA's uniformed service. NOAA Corps officers also support the mission and goals of NOAA's diverse programs through rotational assignments, which bring operational flight duty expertise to the programs and a programmatic expertise to operational flight duty.

Marine Operation and Maintenance Program

Figure 3-4
NOAA *Okeanos Explorer*

NOAA's ship fleet provides seagoing platforms for hydrographic surveys, oceanographic and atmospheric research, and fisheries research. Through the emerging Global Earth Observation System of Systems (GEOSS), NOAA is working with its Federal partners, more than 70 countries, and the European Commission to develop a global monitoring network that is as integrated as the planet it observes, predicts, and protects. Ships have been, and will continue to be, a primary source of observation data, providing *in situ* measurements of physical and biological oceanography, and supporting NOAA's information and ecosystem management services. NOAA ships also help develop and maintain other ocean and atmospheric observation platforms, such as buoys, autonomous undersea vehicles, and unmanned aircraft systems.

Most of NOAA's oldest ships were built in the 1960s for NOS or NMFS. The current NOAA fleet consists of 18 research vessels, and NOAA has successfully developed, adapted, and/or fielded a number of technologies to enhance the capabilities of the ships.

NOAA ships are run by a combination of NOAA Commissioned Officers and wage marine civilians. The wage marine personnel include licensed masters, mates and engineers, and unlicensed members of the engine, steward, and deck departments. In addition, survey and electronic technicians operate and/or maintain the ships' mission, communication, and navigation equipment. The ships' officers and crew provide mission support and assistance to embarked scientists from various NOAA laboratories as well as the academic community.

Fleet and Aircraft Recapitalization

NOAA's ships and aircraft face challenges similar to other observational infrastructure—expanding mission requirements, age and obsolescence, and finite resources for recapitalization.

To address these issues, NOAA has developed the *FY 2010 to FY 2024 NOAA Ship Recapitalization Plan*. This plan provides a comprehensive review of at-sea observation and operational requirements, assesses current capabilities and capacities, and provides a plan to ensure the sustainability of vital at-sea data collection capabilities.

To address similar challenges of aircraft, NOAA has developed the *FY 2011 to FY 2025 NOAA Aircraft Recapitalization Plan*. This plan provides a comprehensive review of airborne observation and operational requirements, assesses current NOAA airborne data collection capabilities and capacities, and provides a plan to ensure the sustainability of a vital airborne data collection capability. Implementation of these plans will promote both economic and societal benefits for the Nation.

NOAA Continuously Monitors

- Atmosphere
- Oceans
- Space
- Land

Satellite Management

NOAA's Satellite Program provides observational data that advances society's knowledge of the environment. This program manages satellite acquisitions and operations to ensure continuous global monitoring of the atmosphere, oceans, and land. It produces and maintains products and services that support NOAA's ability to use Earth and space observational data to make resource management decisions that ultimately create improvements in public safety, security, and quality of life. The program objective is to increase quantity, quality, and accuracy of satellite data processed and distributed within specified timeframes.

The Satellite Program is leveraging world-class science and technology capabilities with international partners to develop new or improved product applications, information services, forecasts, and predictions. Examples are the strong international partnerships with the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) and the French Space Agency (CNES). NOAA, the National Aeronautics and Space Administration (NASA), CNES, and EUMETSAT have joined to transition satellite-based altimetry into operation. Future satellite missions of countries like India, Japan, China, and Taiwan will be executed in collaboration with NOAA for instrument and data sharing.

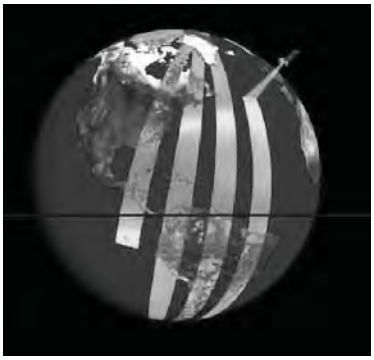
The NOAA Satellite Program comprises the Polar Operational Environmental Satellites (POES), Joint Polar Satellite System (JPSS), Geostationary Observational Environmental Satellites (GOES), Satellite Services, and Commercial Space Services (CSS).

The **POES PROGRAM** has existed since the early 1960s with the launch of the first Television Infrared Observation Satellites. Since then, NOAA has maintained a fleet of operational polar orbiting satellites carrying scientific imaging and sounding instruments and has requirements to maintain the continuity of data from these instruments. POES is the current operational polar satellite fleet; NOAA-N Prime, the last satellite in this series, was launched on February 6, 2009, and was renamed NOAA-19 after attaining orbit. The POES series provides daily global observations of weather and measurements of the Earth's atmosphere, its surface and water bodies, and the space environment (proton and electron flux) at satellite altitude. POES data are also used in climate studies due to its polar coverage and data continuity requirements. POES' two current operational satellites, NOAA-17 and NOAA-18, provide coverage of mid-morning and afternoon orbits, respectively, yielding six hours of global sampling daily. With the launch of NOAA-19, the follow-on mission, NPOESS, will ensure the continuity of data. More information about POES is available at **www.osd.noaa.gov/poes**.

The **JPSS PROGRAM** addresses NOAA's commitments to provide global environmental data necessary for civil and military weather-forecasting, storm tracking, and climate monitoring. In 2010, the National Polar-orbiting Environmental Satellite System (NPOESS) was restructured into the JPSS and the Defense Weather Satellite System so NOAA, NASA, and DOD could procure and manage the instruments that align most closely to their missions while maintaining a collaborative partnership on data-sharing and ground system operations. NOAA, contracting with NASA, will be responsible for procuring and managing the satellites and instruments associated with the afternoon orbit, which is critical for weather and climate data. DOD will be responsible for the morning orbit, which is critical to national defense. NOAA will lead discussions with international partners on JPSS-related activities and continue to manage the development and operations of Air Force satellites. More information about JPSS is available at **www.ipo.noaa.gov**.

The **GOES PROGRAM** has existed since 1974 and, due to its geosynchronous orbit, provides continuous hemispheric coverage from the West and East constellation. Continuous monitoring of severe storms and retrieval of atmospheric moisture gradients, currents flow dynamics, and atmospheric chemicals can only be effectively

Figure 3-5
Typical ground track of POES



achieved without increased error rate and/or lost data segments from a stationary orbit, such as GOES' geostationary orbit. These products support weather forecasting and various other applications, making the data provided by GOES very important to the Nation. The GOES Program is currently coordinating three satellite series.

The GOES-I series, (GOES-10–12) is the current operational series, with GOES-11 and -12 positioned in the East and West constellations, and GOES-10 supporting South America on a special assignment. GOES-13, which was launched in May 2006 from the GOES-N Series, is also operational and is in storage as the on-orbit spare. GOES-O launched in 2009 and GOES-P in 2010. The next-generation follow-on series, GOES-R, is a major system upgrade with initial launch capability in 2015. Historically, the GOES Program has worked closely with NASA to acquire and launch the satellites, as will the GOES-R series acquisition. GOES Program activities are managed in Silver Spring, Maryland (NOAA), and in Greenbelt, Maryland (NASA). More information about GOES is available at **www.osd.noaa.gov**.

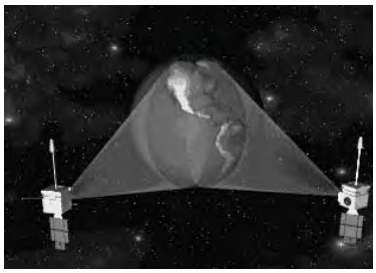


Figure 3-6
Field of view for the GOES constellation

Satellite Services

Satellite Services supports user-generated requirements for satellite-based products and services. Primary functions range from commanding and controlling spacecrafts to supporting a multi-satellite constellation of both polar and geosynchronous orbits, ensuring 24/7 operations of NOAA's national mission-critical systems, and enabling continuous observation of environmental data. There are 14 environmental satellites currently operating.

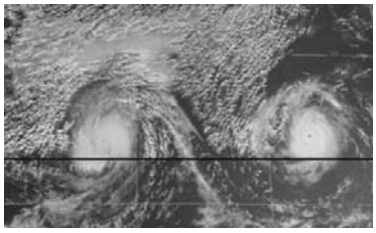


Figure 3-7
Cloud drift winds product produced operationally from GOES data

From those systems, Satellite Services collects, navigates, calibrates, and distributes operational and pre-operational data to NOAA operations and external partners to accurately monitor and observe the atmosphere, oceans, land, and space. Satellite Services operates from various facilities to command and control the satellites and broadcast data directly (Wallops Island, Virginia and Fairbanks, Alaska), and to produce operational data for distribution and research (Camp Springs and Suitland, Maryland). In the near future, a new facility in College Park, Maryland will house some of Satellite Services' activities. More information regarding CSS is available at **www.space.commerce.gov**, **www.licensing.noaa.gov**, and **www.crscompliance.noaa.gov**.

The **CSS PROGRAM** promotes a robust, responsive U.S. space-based industry that is the world leader in commercial space services. Its primary functions include licensing of U.S. commercial remote-sensing satellite firms and ensuring licensed firms comply with licensing agreements. The CSS Program also supports related policy development, associated international and interagency coordination, and a variety of outreach efforts to stakeholders in the government, industry, and the public. More information regarding Satellite Services is available at **www.orbit.nesdis.noaa.gov/star/index.html** and **www.osdpd.noaa.gov**.

Figure 3-8
Ground receivers of satellite data

SATELLITE STRATEGIC PLAN NOAA must meet the expanding needs of the public for data, information, and services. Often, a satellite solution tends to be the best way to gather multiple data at the same time. With user requirements in mind, NOAA has developed a five-year Strategic Satellite Plan (SSP), which outlines the agency's observational portfolio, the assets' capabilities, funds required to maintain current missions, plans for follow-up missions, and evaluation of new observational capabilities. The SSP is updated annually in coordination with changes in the political and fiscal environments, schedule changes due to satellite acquisition slips or satellite failures, and new studies and proposals by users and external partners. The SSP is a valuable tool that provides long-range program objectives and guidance to ensure the Nation's economic, social, and environmental requirements through observational satellites are met.

Enterprise Architecture and Information Technology Management

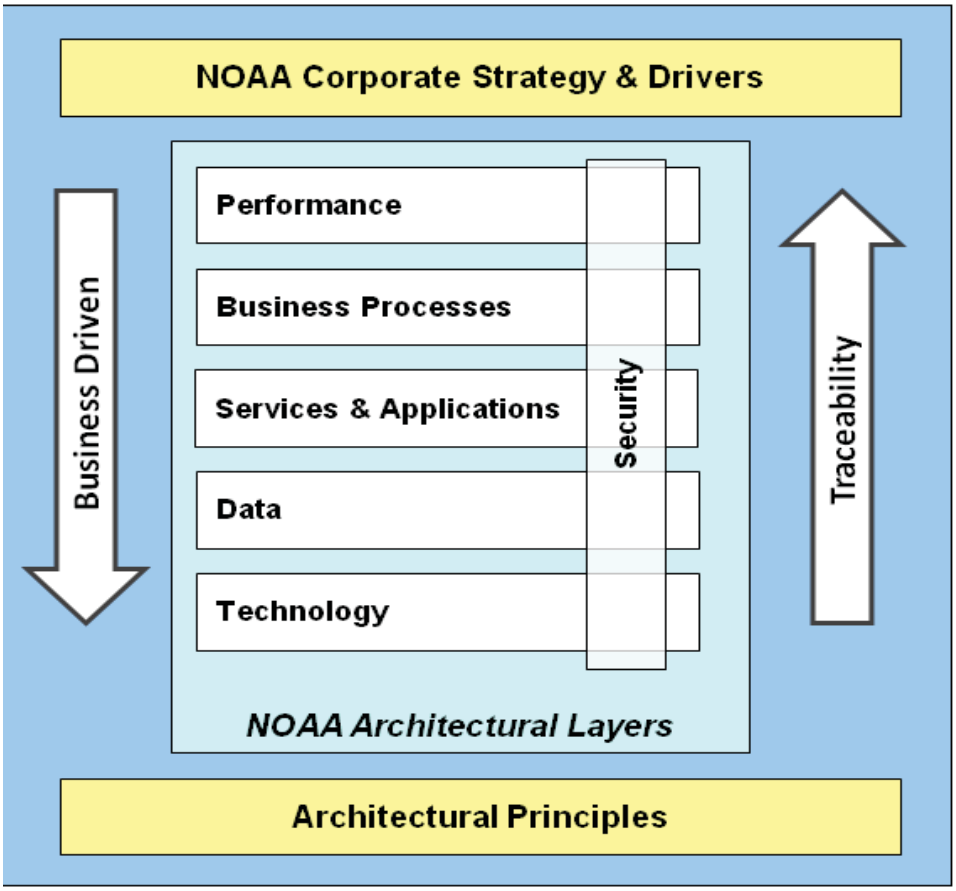
Enterprise Architecture (EA) provides a framework and blueprint to guide the future direction of IT investments. NOAA's EA program responds to Federal mandates (e.g., the Clinger-Cohen Act of 1996) to improve the processes by which Federal agencies select, acquire, deploy, and manage their IT resources. The EA program uses a "top-down" and business-driven methodology to align IT investments with mission requirements.

NOAA's strategic plan, the Strategic IT Plan, and related strategy documents serve as primary drivers of the EA. IT components documented in the EA must be traceable to these strategic drivers. The Strategic IT Plan guides NOAA's IT investments to prioritize and manage advanced programs of scientific research, environmental protection, and education.

NOAA's EA process aligns transition plans for future IT services with mission needs and priorities outlined in NOAA and derivative strategic plans and guidance. Content traceable to strategic direction and business drivers, as constrained by NOAA's architectural principles, is captured and organized into the architectural layers depicted in Figure 3-9.

The primary goal of EA is to provide a coordinated strategy and transition plan for achieving an interoperable, cost-effective, and high impact IT portfolio that is aligned with NOAA's corporate strategy and mission drivers. This

Figure 3-9
NOAA's Architectural Layers



includes the strategic plan for transitioning to shared IT solutions for common business problems in the most cost-effective manner possible. Shared and interoperable IT solutions require a consistent "apples to apples" view across all NOAA programs and LOs/SOs at each architectural layer. A common view exposes opportunities for reuse and consolidation. EA also establishes a clear "line-of-sight" traceability from NOAA's strategic goals and objectives to IT investments by documenting key relationships across the architectural layers.

Figure 3-10 illustrates how NOAA's EA is grounded on OMB's Performance Improvement Life-cycle. Within this life-cycle, the IT capital investments are guided and constrained by the approved architecture. This life-cycle also includes feedback loops so that the architecture can evolve iteratively to incorporate lessons learned from the investment and implementation phases.

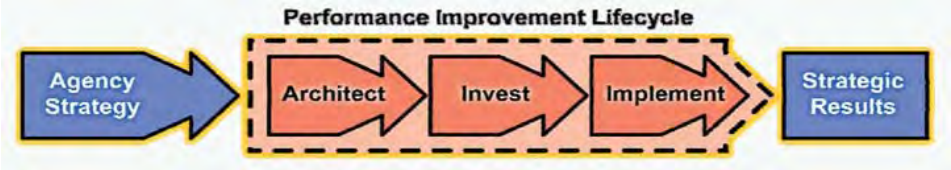


Figure 3-10
OMB's Performance Life Cycle

How Does the Enterprise Architecture Work?

EA is a key program within NOAA's OCIO. EA prescribes a common set of terms to describe NOAA as an enterprise. It documents enterprise-wide performance, business, application (services), data, and infrastructure requirements organized in accordance with industry-standard architecture frameworks. EA promotes standards-based IT solutions and collaboration for common business requirements.

EA delivers significant benefits to NOAA's institutional processes and IT governance by:

» Exposing redundant IT investments and opportunities to consolidate;

» Linking IT capital investments to stated mission goals and objectives;

» Unifying NOAA's business and IT architecture across all LO/SOs, mission areas, and programs under a common framework;

» Providing an approved IT target architecture to guide and inform NOAA investment decisions, and serving as a vehicle for CIO monitoring and enforcement of agreed-upon IT transition plans;

» Providing specific and actionable guidance to program managers for IT components (e.g., standards for interoperability, pertinent technical standards for IT acquisitions, etc.); and

» Enabling a more streamlined IT acquisition process by providing a catalog of corporate IT technical standards and services.

Capital Planning and Investment Control

A process for maximizing the value, and assessing and managing the risk, of IT acquisitions.

IT Roles and Responsibilities

The **OCIO** mission is to ensure that NOAA's programs make full and appropriate use of IT. This is accomplished through centralized policies and guidance, which are implemented across NOAA. The OCIO works closely with its partners throughout NOAA and the DOC to provide leading-edge technology that will better enable NOAA's mission.

The **CIO COUNCIL** advances the management and utilization of IT to achieve NOAA's corporate goals and objectives. It establishes NOAA-wide IT policies, procedures, standards, and practices. The council also coordinates and integrates best practices established by DOC, OMB, and the Federal CIO Council. In addition, the CIO Council oversees NOAA-wide IT projects and operations, which are either funded via organizational cost distribution or tasked by the NOAA CIO or NOAA management. Lastly, the council approves and prioritizes the NOAA OCIO budget, including projects and services supported by NOAA corporate funds.

The **ENTERPRISE ARCHITECTURE COMMITTEE** operates under the auspices of the NOAA CIO Council and advises the council on effective EA management practices and requirements for NOAA's mission at the enterprise-wide level.

The **ENVIRONMENTAL DATA MANAGEMENT COMMITTEE (EDMC)** reports to both the CIO Council and the NOSC. The EDMC coordinates the development of NOAA's environmental data management strategy and policy, and provides guidance to promote consistent implementation across NOAA. This includes guiding the development and implementation of the environmental data architecture, which is a key component of the NOAA EA.

The **NITRB** reviews proposed investments to ensure traceability to NOAA's strategic vision and mission, employ sound IT investment methods, comply with NOAA systems architectures, and provide the highest return on investment with acceptable risk.

The **DOC INVESTMENT REVIEW BOARD (IRB)** serves essentially the same function as the NITRB, but from a Departmental perspective. Selected (generally major and/or high-visibility) NOAA investments are subject to IRB review. The IRB ensures that proposed investments contribute to the DOC Secretary's strategic vision and mission, employ sound IT investment methods, comply with Departmental systems architectures, employ sound security measures, and provide the highest return-on-investment or acceptable project risk.

Next Steps for NOAA's Enterprise Architecture

The NOAA Enterprise Architecture document (version 2.0) is available upon request to authorized persons. Contact David Layton or Sarah Brabson for further information.

Key next steps for the NOAA EA include:

» Building out and operationalizing the EA repository with quality data and analytical capabilities for IT decisionmakers;

» Improving the integration of the EA and Capital Planning and Investment Control (CPIC) processes, with a focus on architectural compliance assessments for NITRB reviews and integrating data management requirements from the EDMC into NOAA's CPIC and SEE processes; and

» Improving the NOAA Technical Reference Model and its associated governance process, and enabling the model as an acquisition compliant document by integrating its standards and specifications with the NOAALink catalog of services.

NOAA's future IT architecture is premised on the notion that selected infrastructure services can and should be acquired, provisioned, and managed as commodities for broad consumption. Such an architecture obviates the need for each office or program to develop or acquire monolithic and self-contained systems, thus reducing redundant expenditures for common services across the agency. This approach also enables economies of scale associated with shared services, reduces technical complexity due to fewer "one-off " solutions (which in turn promotes and enables broader interoperability), enhances agility to transition from one service provider to another, and promotes a more consistent quality of IT services across the enterprise.

Conceptually, this architecture reflects an approach in which the presentation of data to customers is a separate process from the services producing the data, which in turn are separate from the technical infrastructure supporting the business services. This architecture (called "n-tiered") allows any of the services/layers (or tiers) to be upgraded or replaced independently as requirements or technology change. NOAA's representation of a future taxonomy of services is depicted in Figure 3-11.

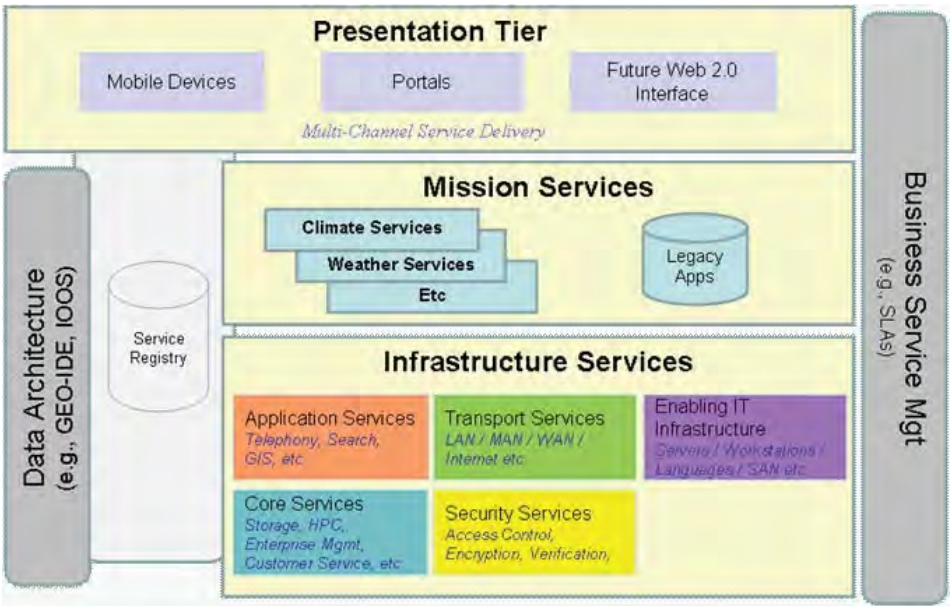


Figure 3-11
NOAA's Target Services Architecture

Guiding Principles

Federal agencies are required to identify IT management principles to ensure proper decisionmaking and achieve effective and consistent governance of enterprise IT resources. Table 3-3 lists the principles as approved by the NOAA CIO Council. The rational and implications of these principles is available to NOAA staff at **https://secure.cio.noaa.gov/secure_docs/EA_Documentation/**.

Table 3-3 IT Management Principles

PRINCIPLE
1. NOAA's IT initiatives and strategies are focused on supporting business priorities, processes, and goals.
2. Whenever possible and practical, and without diminishing the delivery of services, NOAA implements IT solutions that share and/or reuse common processes, services, infrastructure, and system components.
3. NOAA maintains appropriate security, privacy, and protection of its assets, which include data collected or produced as well as the systems and networks that process, disseminate, and store this information.
4. NOAA treats its data and information as corporate resources and manages them appropriately throughout their life-cycles.
5. NOAA bases its acquisitions, development, and operations upon well-defined, approved, widely publicized, and transparent standards.

National Environmental Policy Act

Signed into law in 1970, the National Environmental Policy Act, or NEPA (42 U.S.C. §§ 4321 et seq.), establishes a national environmental policy and provides a framework for Federal decisionmaking. NEPA directs Federal agencies to consider the potential impacts of their actions on the human environment when planning programs and projects. NEPA also established the White House Council on Environmental Quality (CEQ), which is charged with the oversight of NEPA.

NOAA's NEPA procedures (NAO 216-6) are undergoing a full review and revision during FY 2010. More information about the current NAO and the review process is available at **www.nepa.noaa.gov**.

NEPA Assessments

CEQ developed the Regulations for Implementing the Procedural Provisions of NEPA (40 CFR 1500-1508). Under these regulations, each agency is required to develop NEPA procedures to meet its specific decisionmaking requirements. DOC's NEPA procedures are found in Department Administrative Order (DAO) 216-6. NOAA's NEPA procedures are found in NAO 216-6 at **www.nepa.noaa.gov/NAO216_6.pdf**. NOAA staff are required to follow these regulations and procedures when conducting the NEPA process.

When planning Federal programs or project decisions, NOAA must predict and assess the impacts of a decision or any alternatives on the quality of the human environment. AAs or SO Directors are responsible for determining whether NEPA applies to a Federal action, or whether the action is excluded from the NEPA process. AAs and SO Directors designate a Responsible Program Manager (RPM) to the NEPA process for each proposed action subject within their functional area. The RPM may be a regional administrator, a science center director, a laboratory director, or a program director within an LO, SO, or Program Office. The RPM determines the appropriate type of environmental review needed and submits all NEPA documents, associated letters, and memoranda to the AA, SO Director, or delegate for transmittal to PPI.

The NEPA process is documented in one of three ways: 1) a categorical exclusion (CE) is issued when there are no effects anticipated; 2) an environmental assessment (EA) is issued when effects may be significant; or 3) an environmental impact statement (EIS) is issued when significant effects are expected. Figure 3-12 outlines the process decisionmakers must follow when considering environmental impacts of their decisions.

A CE applies if: 1) the proposed action falls within a class of actions analyzed previously and established in NAO 216-6 to neither individually nor cumulatively have a significant impact on the human environment; and 2) there are no extraordinary circumstances warranting further analysis. A CE Decision Memo is a brief statement for the administrative record documenting that the proposed action qualifies for one of NOAA's CE categories.

An EA is a concise document that provides supporting evidence and analysis of proposed action and alternatives. The EA process results in one of two outcomes: 1) a Finding of No Significant Impact (FONSI) when no significant environmental effects expected; or 2) an EIS is prepared because it is determined that significant environmental effects may occur.

An EIS is the more detailed document assessing the environmental impacts of the proposed action and alternatives to the proposed action. The EIS process begins with a Notice of Intent and concludes with a document called Record of Decision (ROD), explaining the outcomes of the NEPA process and the action to be taken.

Once the NEPA process is complete, the RPM takes action. Because the NEPA process is used to predict what environmental effects are expected before an action is taken, adaptive management is used to continually monitor and update actions in response to changing conditions or new information.

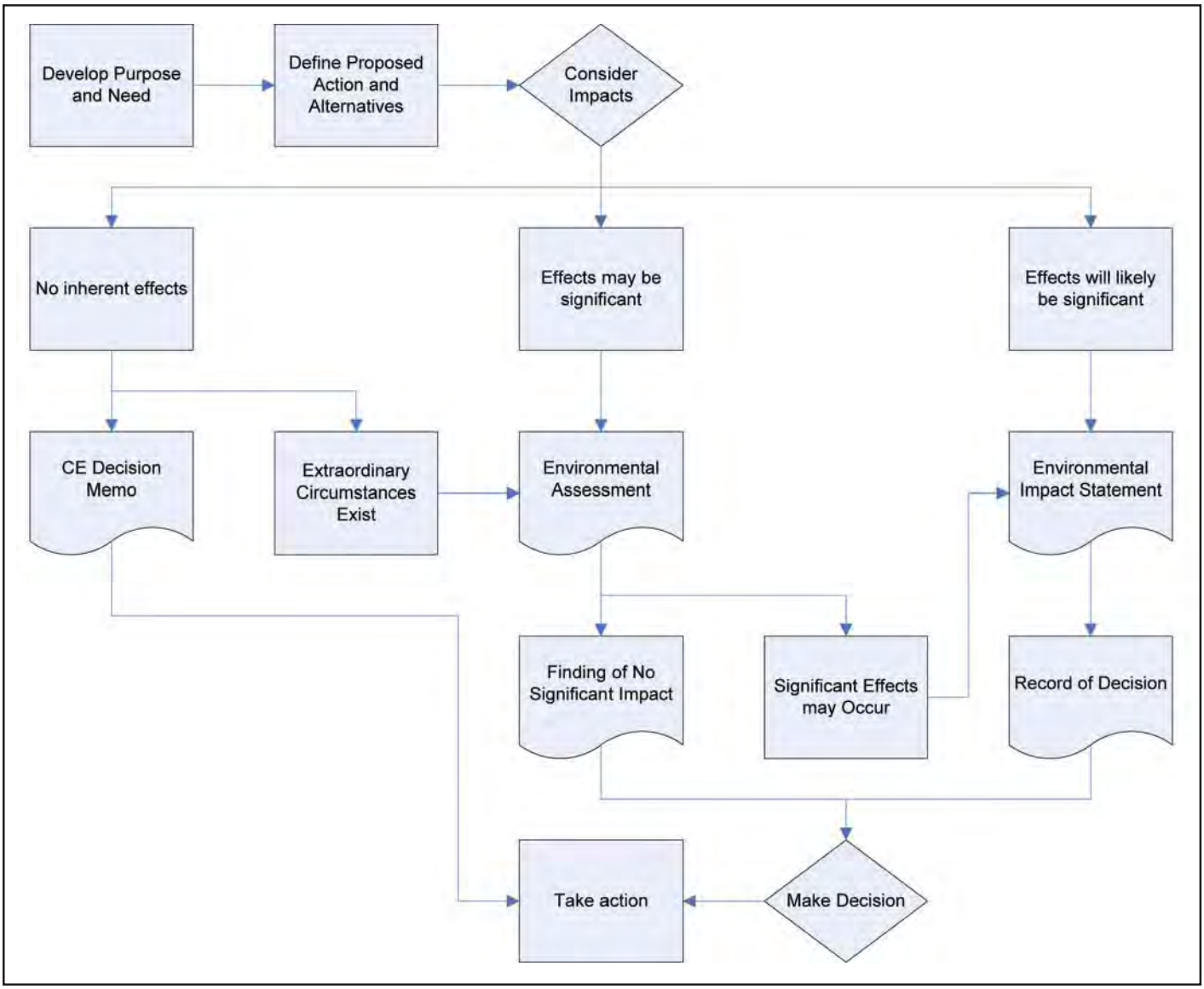


Figure 3-12
NEPA procedural process

Roles and Responsibilities

NOAA's NEPA Coordinator, based in PPI, is responsible for all NOAA-level NEPA policies and procedures. The NEPA Coordinator, with support from PPI's NEPA Coordination staff, ensures NEPA compliance for NOAA.

The NOAA NEPA Coordinator:

» Provides final clearance for all EAs and EISs;

» Maintains NAO 216-6 and the agency's NEPA policy and procedures;

» Advises NOAA staff on NEPA compliance;

» Develops NOAA NEPA policies, guidance, and training;

» Serves as liaison to CEQ and the U.S. Environmental Protection Agency; and

» Advises on, assists with the development of, and reviews all EAs and EISs.

The RPM, as designated by an AA or SO Director:

» Determines the appropriate type of environmental review needed for a proposed action;

» Submits all NEPA documents and associated letters and memoranda to the AA, SO Director, or delegate for transmittal to PPI; and

» Signs the CE Decision Memos for CEs, FONSIs for EAs, and RODs for EISs, if signature authority has been delegated by the AA or SO Director.

NEPA and Federal Financial Assistance

Multiple LOs and SOs manage Federal financial assistance awards. Guidance issued by PPI and AGO emphasizes the application of NEPA to NOAA's financial assistance awards, and is available at **https://www.intranet.nepa.noaa.gov/Grants_Docs/NEPA_NOAA_FFA_Sep09.pdf**. A summary of the guidance is provided in Table 3-4.

Additional Resources

Additional information on NEPA is available at **www.nepa.noaa.gov**. More detailed information, including NOAA guidance documents, templates, and examples, is available to NOAA staff at **www.intranet.nepa.noaa.gov**. The NOAA NEPA handbook, which provides detailed information on NOAA's NEPA process and preparing NEPA documents, is available at **www.nepa.noaa.gov/NEPA_HANDBOOK.pdf**.

Table 3-4 Summary of NEPA's Application to Federal Financial Assistance Awards

LEGAL INSTRUMENT	DEFINITION	EXAMPLE(S)	IS NEPA REQUIRED?
Grant	Reflects a relationship between the U.S. Government and a state, a local government, or other recipient when— (1) the principal purpose of the relationship is to transfer a thing of value to the State or local government or other recipient to carry out a public purpose of support or stimulation authorized by a U.S. law instead of acquiring (by purchase, lease, or barter) property or services, and (2) substantial involvement is not expected between the executive agency and the state, local government, or other recipient when carrying out the activity contemplated the agreement. [1] NOTE: all "hard earmarks" should be considered grants, where NOAA has no substantial involvement because the mandatory funding of these projects or programs as specified by law circumvents otherwise applicable merit-based or competitive allocation processes, specifies the location or recipient, specifies the purpose of the funding, specifies the funding amount, or otherwise curtails the ability of the executive branch to manage its statutory and constitutional responsibilities pertaining to the funds allocation process. [2]	Federal financial assistance is being awarded to stimulate Non-governmental activity. Federal financial assistance is being awarded for construction of Non-NOAA facility (e.g. museum or Learning Center). NOAA is providing financial assistance to a nongovernmental entity to purchase equipment, but has no involvement in selection, operation, maintenance, and disposal.	Generally - No. There is typically no "substantial" Federal involvement with the nongovernmental entity. The activity remains independent. NOTE: a Grant Program may require NEPA analysis of Federal decision on how to award funds (allocation, need).
Cooperative Agreement	Reflects a relationship between the U.S. Government and a state, a local government, or other recipient when— (1) the principal purpose of the relationship is to transfer a thing of value to the state, local government, or other recipient to carry out a public purpose of support or stimulation authorized by a U.S. law instead of acquiring (by purchase, lease, or barter) property or services; and (2) substantial involvement is expected between the executive agency and the State, local government, or other recipient when carrying out the activity contemplated the agreement.[3]	Federal financial assistance is being awarded for support and/or research. NOAA and the nongovernmental entity work in tandem. NOAA is generally considered the lead.	Generally – Yes, based on "substantial" Federal involvement.
Contract	Reflects a relationship between the U.S. Government and a state, a local government, or other recipient when— (1) the principal purpose of the instrument is to acquire (by purchase, lease, or barter) property or services for the direct benefit or use of the U.S. Government; or (2) the agency decides in a specific instance that the use of a procurement contract is appropriate.[4]	Primary purpose of the activity is to acquire a product and/or service for direct benefit or use of Federal Government.	Yes. Typically accomplished by NOAA prior to procurement or contract award.

[1]From Grants and Cooperative Agreement Act of 1977 as amended (31 USC §§ 6301 et seq.)
[2]Summarized from OMB Guidance to Agencies on Definition of Earmarks, http://earmarks.omb.gov/earmarks_definition.html
[3]From Grants and Cooperative Agreement Act of 1977 as amended (31 USC §§ 6301 et seq.)
[4]From Grants and Cooperative Agreement Act of 1977 as amended (31 USC §§ 6301 et seq.)

Legislative and Intergovernmental Affairs

The Office of Legislative and Intergovernmental Affairs (OLIA) coordinates all NOAA contacts with Congress (except those relating to appropriations) and is responsible for the planning, direction, and coordination of legislative programs that are of immediate concern to the NOAA Administrator and the Administration. OLIA communicates the Administration's views to Congress and is proactive in notifying Congress of important NOAA developments. Conversely, OLIA keeps senior NOAA and DOC officials informed of critical congressional information and activities.

OLIA works within NOAA, DOC, and the Administration to:

» Develop, coordinate, and implement the overall legislative strategy for NOAA, including the identification and tracking of all legislation of interest to NOAA, and informing the NOAA Administrator, staff, and the AAs;

» Ensure good communication and coordination among legislative activities within LOs and SOs;

» Manage every aspect of NOAA's participation in congressional hearings, including advising NOAA senior management of official requests for witnesses, ensuring the witnesses are properly briefed, and overseeing the preparation and clearance of NOAA testimony, including providing drafting assistance for written and/or oral testimony as requested; and

» Coordinate with the DOC Office of Legislative and Intergovernmental Affairs.

OLIA works with Congress to:

» Educate new members and their staff on NOAA and its issues, programs, and activities;

» Roll out the President's annual budget request to Congress;

» Coordinate and communicate the Administration's positionon proposed legislation of interest to NOAA through views, letters, and congressional testimony;

» Provide congressional staff with technical drafting assistance and opportunities to meet with NOAA experts;

» Ensure congressionally-mandated reports mandated by NOAA-authorizing committees are completed on time;

» Respond to all congressional inquiries in a timely manner;

» Brief members and their staff regularly on important NOAA programs, issues, and activities; and

» Notify congressional members when NOAA grants are awarded for work in their districts or states.

OLA maintains a summary of all NOAA programs or activities based in, or focused on, states or territories at **www.legislative.noaa.gov/NIYS/index.html.**

Additional information about OLA is available at **www.legislative.noaa.gov**.

International Affairs

Outcomes

- International collaboration that significantly benefits society environmentally, economically, and socially
- International endeavor that achieves the Nation's integrated research, management, and scientific objectives

A world with rapidly shifting political, cultural, and economic dynamics requires Federal agencies involved in world affairs to cultivate fresh approaches and new services to maintain U.S. leadership. Oceans and atmosphere are inherently trans-boundary and do not respect national boundaries. Therefore, the nature of NOAA's mission requires that NOAA engage across boundaries and maximize the mutual benefits of international exchange with its international partners. NOAA has identified international leadership as a priority.

To take full advantage of the development and use of research, observations, environmental science, and ecosystems management, multilateral and bilateral relationships are leveraged. International consensus and cooperation are promoted in support of NOAA's mission and U.S. foreign policy through multilateral and bilateral engagement and relationships.

The Director for International Affairs is the senior advisor to the NOAA Administrator on international matters. The Director represents NOAA and the U.S. internationally, and manages NOAA's international enterprise. The position is supported by the OLIA, LO international offices through matrixed management authority, and the NOAA International Affairs Council, for which the Director serves as the chair.

NOAA's International Engagement

NOAA officials serve as U.S. representatives to the World Meteorology Organization, Intergovernmental Oceanographic Commission, Group on Earth Observations, International Whaling Commission, International Convention for the Conservation of Atlantic Tuna, and many other prominent international organizations. NOAA also occupies leadership positions in many multilateral forums, including the Caribbean and South Pacific Regional Seas, Arctic Council, Antarctic Treaty, Asia-Pacific Economic Cooperation, United Nations Environment Programme, International Maritime Organization, and the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Seas.

NOAA serves as a lead agency and provides support for several priority bilateral relationships (including fisheries, oceans, meteorology, Earth systems, remote sensing, data, climate science, and science and technology) between the U.S. and other governments, including, but not limited to, China, Canada, Mexico, South Korea, Russia, Vietnam, India, the European Union, Australia, New Zealand, and the Caribbean and Pacific regions. NOAA staff serve as international experts, engaging in numerous projects and conferences, and bringing international resources and state-of-the-art expertise to benefit NOAA's programs.

International engagement is supported as an integral part of NOAA's work throughout the agency. A review of NOAA's international investment in FY 2003 identified resources close to $100,000,000 dedicated to and supporting international work across NOAA.

In 2005, NOAA articulated a *Statement of International Goals* identifying the international policy objectives associated with NOAA's strategic goals. The statement is available at **www.international.noaa.gov/Overarching%20International%20Goals_11-28-05-1.pdf**.

NOAA International Affairs Council

The International Affairs Council (IAC) serves as NOAA's focal point for international policy, activities, and important cross-cutting topical areas. The IAC is the advisory, information-sharing, and coordinating group at the center of NOAA's international affairs management process. It is also responsible for making recommendations, through the Director for International Affairs, to the NEC concerning international

policy, objectives, and priorities. Through the IAC, NOAA's international affairs are managed using matrix management principles to ensure coordination, cooperation, and communication and to enhance the visibility of NOAA's international activities and accomplishments.

The **IAC OPERATIONS COMMITTEE** comprises the Directors of HQ and LO international affairs offices, and is chaired by the Director for International Affairs. This committee addresses the management and administrative functions across the agency, promoting communication, collaboration, and cooperation in achieving the agency's day-to-day responsibilities and meeting shared challenges.

Additional committees have been established for topical focus:

» Polar Committee
» Marine Debris International Committee
» High Seas Biodiversity Working Group
» Law of the Sea Convention Working Group

Through the IAC, NOAA has established procedures for communication, collaboration, and cooperation across the LOs/SOs with respect to international activities, including, but not limited to, the review and finalization of international agreements, nominations of embassy science fellows, responses to annual information requests regarding NOAA's international engagements, and support for foreign travel requirements.

Organizational Structure

NOAA's international engagement is supported by international affairs offices at NOAA headquarters and in each of the LOs, under the leadership of the Director for International Affairs. These offices provide policy leadership, expertise, and advice; represent NOAA and the U.S. in international relationships; conduct projects and provide technical assistance; and provide staff and administrative support. **www.international.noaa.gov**

Roles and Responsibilities

The Director for International Affairs is the senior advisor to the NOAA Administrator on international policy issues and is responsible for planning and coordinating NOAA's international programs and carrying out tasks of special interest related to international activities. The Office of International Affairs exercises a leadership role in establishing policies, guidelines, and procedures for NOAA's international programs, including:

» Coordinating NOAA's major international activities, including those programs that overlap with the interests or responsibilities of AAs or SO Directors;
» Supporting the development and coordination of NOAA's international policies regarding "trade and environment" issues and the negotiation of trade agreements;
» Coordinating NOAA's interactions on international issues with other Federal departments and agencies, including other bureaus within DOC;
» Developing Administration policy on international issues affecting NOAA;
» Coordinating NOAA's participation in U.S. delegations to international forums; and
» Participating in the negotiation of international agreements and appropriate representation of NOAA and DOC at international fora on environmental issues.

The Director for International Affairs conducts these responsibilities through the following:

» the NOAA Office of International Affairs;
» the NOAA IAC; and
» Coordination with the international affairs office within each LO.

Library Services

The mission of the NOAA Central Library and Information Services Division is to ensure timely delivery of scientific, technical, management, and legislative information to users and to preserve NOAA's intellectual heritage for future generations. Users include NOAA staff, other government agencies, academia, industry, and the general public. The NOAA Central Library is the flagship library of the NOAA Library System.

The Central Library comprises the facility in Silver Spring (2nd floor of Building SSMC-3), regional libraries in Seattle and Miami, and the Betty Petersen Memorial Library in Camp Springs, Maryland. The NOAA Library System involves a cooperative league of more than 30 NOAA libraries located at various laboratories and other NOAA facilities throughout the U.S. These libraries share resources when feasible, follow common cataloging procedures, and consult with each other for access to materials and specialized knowledge. A directory of NOAA libraries is available at **www.lib.noaa.gov/about/lib_network.html**.

The library's research collection comprises books, journals, visual media, maps, and digital materials. The NOAA Library System website (**www.lib.noaa.gov**) provides access to:

» Digital materials, including online catalog, databases, e-journals, bibliographies, the NOAA Photo Library, Internet guides, and digitized historical collections;

» Inter-library loan services;

» Reference services;

» Specialty virtual libraries; and

» Directions, hours, and contact information for NOAA's Central Library.

The NOAA Central Library is open daily. Tours of the library and special training sessions for library services and tools can be arranged between the hours of 9 am and 4 pm. A history of the library is available at **www.lib.noaa.gov/about/mission.html**.

Administrative Services

The OCAO provides comprehensive, NOAA-wide technical and programmatic guidance and staff support to the NOAA Administrator's office. Specifically, the OCAO strives to provide employees a safe operating environment, along with financial, administrative, and support services. As depicted in Figure 3-13, the OCAO is organized into four offices:

» Civil Rights Office, including the civil rights and equal employment opportunity (EEO) programs;

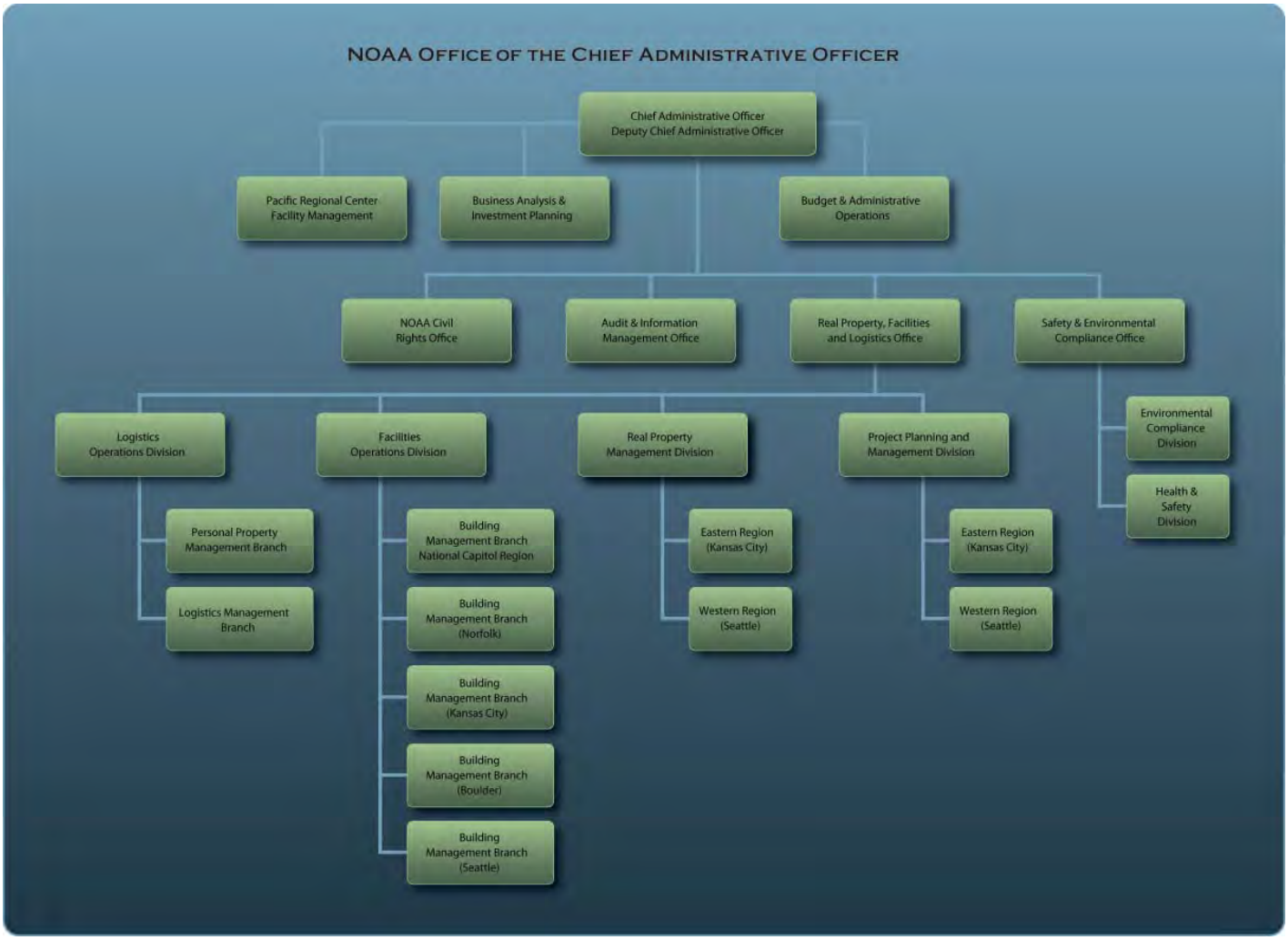
» Audit and Information Management Office, including records management (FOIA and the Privacy Act);

» Real Property, Facilities, and Logistics Office, including the Logistics Division, Facilities Operations Division, Real Property Management Division, and Project Planning and Management Division; and

» Safety and Environmental Compliance Office (SECO), including the Health and Safety Division and Environmental Compliance Division.

NOAA's Deemed Export Technology Control Program advances U.S. national security, foreign policy, and economic interests by regulating exports, enforcing compliance, assisting key transit nations, and monitoring the U.S. defense industrial base, with a focus on sensitive technologies. **http://deemedexports.noaa.gov**

Figure 3-13
The OCAO Organization



The primary purpose of NOAA's Business Development Team is to develop business cases and supporting analyses for emerging facilities requirements in accordance with governing guidance, and steer priority projects into the budget cycle.

NOAA Civil Rights Office

The NOAA Civil Rights Office advises and assists the NOAA Administrator in carrying out NOAA's responsibilities relative to Titles VI and VII of the Civil Rights Act of 1964, as amended; the Age Discrimination in Employment Act of 1967; the Rehabilitation Act of 1973; as well as all other laws, EOs, regulations, and guidelines affecting affirmative action and non-discrimination within the Federal Government. The office is also responsible for matters regarding EEO or affirmative action policy recommendations, objectives, and progress in meeting goals. The staff processes and adjudicates complaints of discrimination and plans, develops, monitors, and evaluates NOAA-wide Affirmative Employment Program plans. It conducts studies on systemic employment problems, assesses the effect of policies and practices on equal employment, identifies employment barriers, recommends solutions, and develops written guidance for management on all of these activities. The staff provide advice to principal LO and SO officials and managers concerning all aspects of NOAA's EEO/Civil Rights Program. The Civil Rights Office is an active participant in the HCC, which brings together all functions within NOAA associated with its people and serves as the principal forum through which issues affecting NOAA's workforce are addressed.

Audit and Information Management Office

The Audit and Information Management Office provides management oversight and advice to NOAA on management reviews, corrective actions, program integrity, and NOAA-wide management of activities related to regulations, delegations of authority, A-76/FAIR Act, records management, FOIA and Privacy Act records, and forms management.

The Audit and Information Management Office is the focal point for OIG, GAO, and the Federal Managers' Financial Integrity Act (FMFIA) activities and serves as the central NOAA source of information and guidance. The Staff ensures NOAA compliance with the applicable laws, regulations, policies, and procedures relative to OIG, GAO, FMFIA, and OMB Circular A-123 activities. The Staff provides direction and guidance to NOAA offices on the development of responses to OIG and GAO reports. In addition, the Staff assists in negotiations and resolution of disputed findings and recommendations, ensuring that responses reflect the NOAA perspective.

Real Property, Facilities, and Logistics Office

The Real Property, Facilities, and Logistics Office (RPFLO) manages NOAA's national facility management program, including real and personal property management operations and services and construction project management services. RPFLO supports NOAA facilities and construction projects nationally and is responsible for long-range facilities program planning, policy development, and program execution. RPFLO provides policy, oversight, and direction to support real property acquisition (including capital and operating leases) and asset management services for NOAA's real property portfolio, including total cost of ownership and operations, facility condition assessments, and investments in cyclic repair and maintenance.

The Logistics Division manages personal property and fleet management, building and space management, printing and publications, resolution of audit issues resulting from financial audits, and shipping, handling, and storage.

The Real Property Management Division, including the Eastern (Kansas City) and Western (Seattle) regions, manages NOAA's national real property acquisition and asset management programs, including policy development and guidance, program execution, performance management, audit resolution, and customer relations.

The Project Planning and Management Division manages NOAA's national project construction program. The Division has responsibility for policy development and guidance, program execution and performance management, and customer relations for the facilities construction program (for new facilities as well as rehabilitation and repair of existing facilities). The Division also provides support to NOAA programs on non-major projects as appropriate, coordinates the development of acquisition support vehicles for construction projects, and provides executive-level oversight, coordination, and reporting for all major (prospectus-level) construction and restoration projects.

More information about OCAO is available at **www.corporateservices.noaa.gov/~ocao/index.html**.

Safety and Environmental Compliance Office

SECO is responsible for NOAA-wide occupational health, safety, and environmental compliance programs. SECO establishes NOAA-wide guidelines and procedures to implement Federal, state, and local laws and regulations; develops NOAA-wide policies and working procedures promoting safety and environmental compliance; develops program goals and objectives and training programs; evaluates program implementation; monitors compliance progress; and advances best practices within NOAA for these programs.

SECO is an active participant in the NOAA Safety Council, which oversees LO and SO safety-related actions and policies.

Acquisition and Grants Management

Services Provided

- Acquisition of supplies and services, ranging from design/build of NOAA facilities and restoration of marshes and coral reefs to aircraft and water vessels
- Assistance with acquisition planning
- Strategic sourcing
- Management of field delegate programs
- Management of DOC purchase card program
- Management of small and disadvantaged business program
- Informal client training and education

Acquisition Management

The NOAA acquisition function is integral to achieving NOAA's mission. In 2008, nearly 50 percent of NOAA's $4.2 billion budget was processed through these offices. Acquisition professionals partner with LOs, SOs, and DOC colleagues to manage a complex acquisition process in an environment of constrained budgets and growing demands and expectations. The AGO is charged with managing NOAA's acquisition function.

ORGANIZATIONAL STRUCTURE

In 2005, a new Department Organization Order was signed to move NOAA to a functional management model for its administrative and financial services. This change established direct lines of accountability from headquarters business managers to NOAA financial and administrative field staff. The functional management model, which provides a clear point of accountability in a senior functional manager for each function, aims to increase consistency and application of policy and service levels.

A business process review of AGO was conducted in 2007–2008, which resulted in 2009 in the AGO realigning its organizational structure to provide more timely, responsive, value-added services delivered efficiently and effectively to its clients and stakeholders in support of NOAA's mission. AGO's new operating model comprises four key components: 1) the guiding principles of improved communication, improved cooperation, and talented people; 2) consolidation of acquisition requirements; 3) strategic sourcing to create large omnibus contracts for common products and services; and 4) a stronger focus on contract management and acquisition oversight.

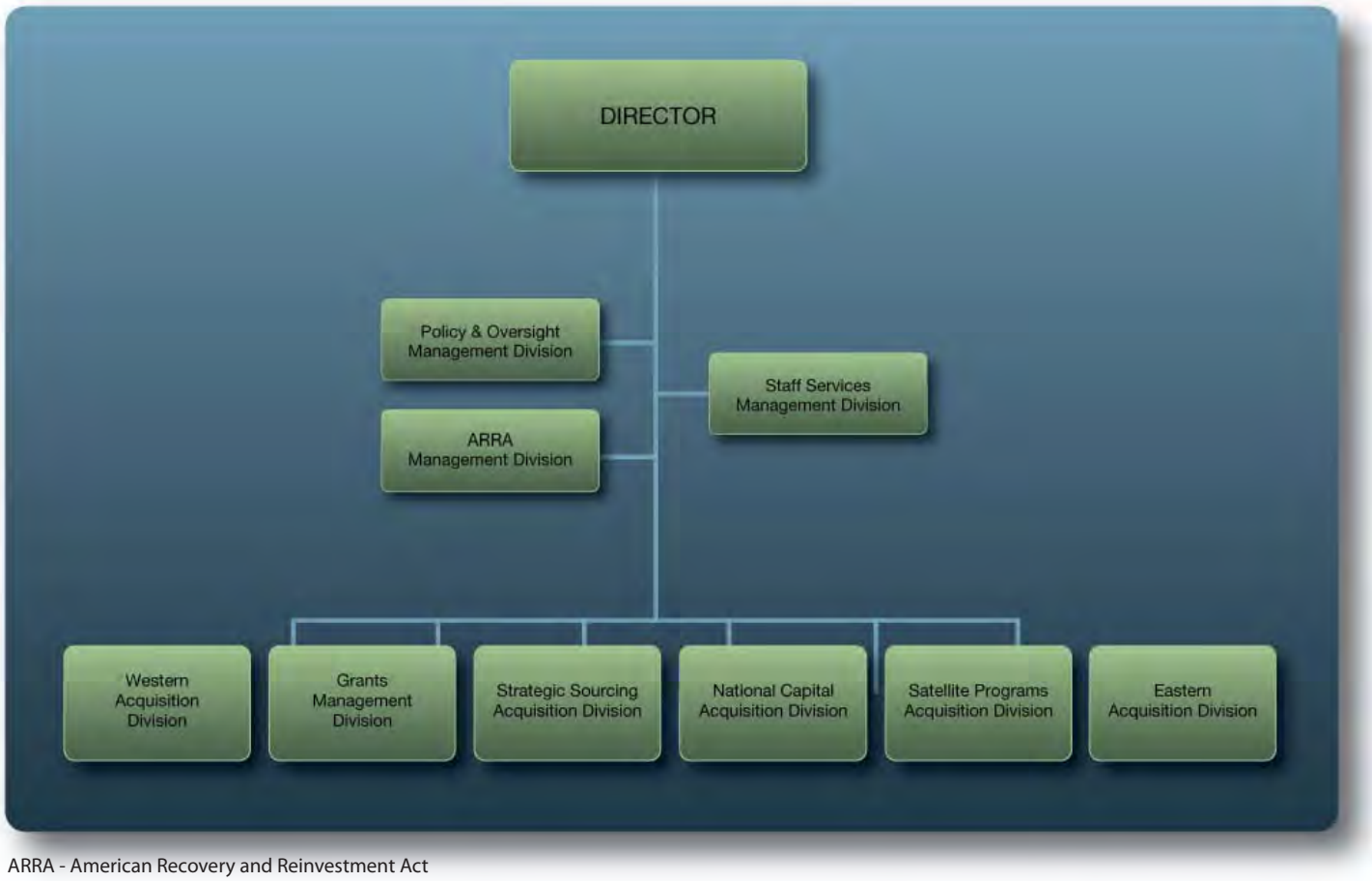
The AGO realignment involved the formal establishment of a Policy and Oversight Division and Staff Services Division, as well as the consolidation of nine geographically-dispersed divisions into only five divisions, headquartered in Silver Spring, Maryland; Norfolk, Virginia; and Seattle, Washington. The Norfolk and Seattle Divisions contain branches servicing clients on site in Kansas City, Missouri, and Boulder, Colorado, respectively.

The organization structure of the AGO is depicted in Figure 3-14 (opposite).

ROLES AND RESPONSIBILITIES

AGO ensures acquisitions are processed. The office works in concert with LOs and SOs as they develop and submit their advanced acquisition plans to ensure that the needs of the programs are communicated.

ACQUISITION LIAISONS track acquisition status, including collecting and submitting requests, monitoring request priorities, and disseminating information and communications for respective LOs and SOs. Centralized knowledge management responsibilities include identifying and coordinating the development and dissemination of processes, policies, and standard operating procedures. Acquisition liaisons are also members of the Acquisition Management Advisory Committee (AMAC).



ARRA - American Recovery and Reinvestment Act

Figure 3-14
The AGO organization

AMAC MEMBERS are part of a NOAA-wide committee with representatives from the acquisition community in NOAA's LOs and corporate offices, AGO, and DOC. The AMAC consults on high- priority acquisition issues and is vital in communicating changes in legislation, policy, and procedures to the respective offices.

CONTRACTING OFFICER REPRESENTATIVES (CORs) prepare the technical portions of the acquisition package, review the acquisition for accuracy, incorporate guidance from AGO and Budget Execution Analysts, manage contracts using project management standards, align advanced acquisition plans with budgets, report on financials, and close-out contracts.

PURCHASE CARD HOLDERS are issued a government purchase card to purchase supplies and services (typically, up to the micro-purchase threshold) and pay for official expenses in compliance with applicable regulations.

DELEGATIONS OF PROCUREMENT AUTHORITY hold a Contracting Officer's (CO) warrant and are designated to make purchases up to a predetermined limit above the micro-purchase threshold. Delegations of Procurement Authorities manage their own purchases through the entire life-cycle of the acquisition process, and collect and track metrics to ensure supplies and services are optimally acquired.

ACQUISITION PROGRAM MANAGERS are assigned to oversee and manage all aspects of a single acquisition, or a single program involving multiple acquisitions greater than $10 million in value. This includes managing the acquisition from requirements development through receipt, acceptance, and closeout of the contract.

REQUISITIONERS are responsible for preparing the electronic requisition using C.Request and submitting the requisition to the appropriate Acquisition Division. Requisitioners work with the CORs and Contract Specialists after the acquisition need has been identified through completion of the award. The Requisitioner can also be the COR.

COs are authorized to perform the functions assigned by the Federal acquisition regulations and the Commerce acquisition regulation on behalf of the government based on their specified warrant level. These functions include the development of, entering into, and administration of contracts. COs coordinate and provide advice to stakeholders, and manage contracts to ensure supplies and services are optimally acquired, from pre-award to closeout. A CO may have a Level I (up to $100,000), II (up to $1,000,000), or III (unlimited) warrant.

CONTRACT SPECIALISTS are responsible for processing the solicitation and award of contracts exceeding $100,000 using formal contracting procedures (e.g., sealed bidding, negotiation) and for administering those contracts. Contract Specialists prepare necessary contract modifications and contract actions for CO approval, including changes to key personnel or CORs, application of liquidated damages, Quality Assurance Surveillance Plans, award fees, and assurance of receipt and acceptability of all deliverables in the contract. Contracting Specialists coordinate and provide advice to stakeholders and manage contracts to ensure supplies and services are optimally acquired. This role does not require a warrant.

HEADS OF CONTRACT OFFICE (HCOs) are COs responsible for managing the acquisition activity, day-to-day operations (including purchase card program), and overall performance of their division. HCOs are responsible for conducting customer management and outreach, coordinating and providing advisory services to stakeholders, applying project management techniques to ensure supplies and services are optimally acquired, and managing and developing the workforce. HCOs support audits impacting their regions, are responsible for change management and continuous improvement, and participate in the development of operational strategies. HCOs hold Level III warrants with unlimited procurement authority.

POLICY AND OVERSIGHT DIVISION DIRECTORS are responsible for managing acquisition policy; overseeing AGO operating practices to facilitate consistent and efficient operating methods; developing acquisition system requirements, training, and communications; and conducting compliance audits of AGO Divisions, field delegate files, and purchase card-holder records. Policy and Oversight Division Directors are also responsible for the technical support and infrastructure of the AGO website to improve self-service options for customers and AGO staff.

PROCUREMENT OFFICIALS are the senior individual responsible for overall acquisition authority within a bureau, including sign-off on the largest procurements. Procurement Officials have an outward-facing role, liaising with the DOC on acquisition policy, systems, and legal matters, and responding to audit matters with the OIG and GAO. Procurement Officials represent NOAA on the Department Acquisition Council. In addition, Procurement Officials make final budget and operational strategy decisions and are responsible for strategic partnerships. Procurement Officials hold Level III warrants with unlimited procurement authority.

PURCHASING AGENTS are responsible for buying supplies or services valued under $100,000 using simplified acquisition procedures for the organization. Purchasing Agents also issue orders against established contracts, such as GSA Federal Supply Schedule contracts and blanket purchase agreements. This role does not require a warrant.

ADDITIONAL INFORMATION

More information on NOAA Acquisition, including AGO guidance and policies, is available at **www.ago.noaa.gov**. The NOAA Acquisition Handbook provides detailed information on NOAA's acquisition policies and requirements and is available at **http://www.ago.noaa.gov/ago/acquisition/docs/acq_handbook_1_rev3_1.pdf** and **www.ago.noaa.gov/ago/acquisition/docs/acq_handbook_2_rev3_1.pdf.** NOAA's Acquisition Process Guide provides information on the end-to-end acquisition process, as well as templates, guides, and other documents for use by NOAA staff involved in any part of the acquisition process. The guide is available at **www.easc.noaa.gov/apG/apG_home.htm**.

Grants Management

The Grants Management Division (GMD) manages grants and cooperative agreements from a centralized location in Silver Spring. GMD serves as the single conduit and final decision station for all fiscal actions involving grants and cooperative agreements.

Approximately one-fourth of NOAA's annual appropriations is expended through grants and cooperative agreements.

ASSISTANCE INSTRUMENTS

Grants and cooperative agreements are two kinds of assistance instruments awarded by the Federal Government. An assistance instrument is used when principal purpose of the relationship between the Federal Government and the recipient is the transfer of money, property, services, or anything of value to accomplish a public purpose of support or stimulation authorized by Federal law.

Grants and cooperative agreements are the only awards made by GMD.

A **GRANT AGREEMENT** is the preferred assistance instrument if no substantial involvement is anticipated between the Federal Government and the recipient during the performance of the assistance activities.

A **COOPERATIVE AGREEMENT** is the preferred assistance instrument if substantial involvement is anticipated between the Federal Government and the recipient during the performance of the assistance activities.

TYPES OF GRANTS AND COOPERATIVE AGREEMENTS

COMPETITIVE AWARDS are a kind of discretionary award in which NOAA announces fund availability through **www.grants.gov** and other public venues. Eligible applicants are defined, areas of interest described, number and amounts of anticipated awards identified, and review criteria specified.

NON-COMPETITIVE AWARDS are a kind of discretionary award in which NOAA does not announce availability of funds. A prospective applicant requests support for a particular project or range of activities which can be supported by law and is so unusual or outstanding that it could not have been supported under a current or recent funding announcement. Funding the activity is determined through a separate and rigorous approval process.

FORMULA AWARDS are a kind of nondiscretionary award to states and territories, which must be awarded if the eligible applicant meets certain qualifying conditions and submits an acceptable proposal. A statutorily-determined formula determines the eligibility for and distribution of funds.

All grants and cooperative agreements are either non-discretionary or discretionary:

NON-DISCRETIONARY AWARDS are those for which applicants and authorized activities are designated by statute.

DISCRETIONARY AWARDs are those for which the applicant and authorized activities are not identified by statute and awards may be made based on the authorizing legislation, preferably and usually through a competitive award process.

Additional information on AGO, including guidance and policies on NOAA grants, is available at **www.ago.noaa.gov**.

CONGRESSIONALLY-MANDATED AWARDS are a kind of nondiscretionary award in which the recipient and usually the activity to be funded are identified in a law. No funds may be utilized by NOAA for award, monitoring, or participation in the activities of these awards.

SOFT EARMARKS are a kind of discretionary award in which the recipient and activity to be funded are identified in a Congressional conference or committee language. A reasonable amount of funds may be utilized by NOAA for award, monitoring, or participation in the activities of these awards.

INSTITUTIONAL AWARDS are a kind of discretionary award in which long-term relationships are established between NOAA and large research organizations, usually universities, revolving around a specific research theme or themes. These are generally competed and are awarded for up to five years with a potential for renewal.

Fundamental Project Management Principles

- Project management accountability
- Sound, disciplined, up-front planning
- Development and implementation of appropriate acquisition strategies to meet requirements
- Well-defined and managed performance baselines
- Effective project management systems (e.g., quality assurance, risk management, change control, performance management)
- Effective communication among all project stakeholders

Project Management

Project management is the discipline of planning, organizing, and managing resources to bring about the successful completion of specific project goals and objectives. A project is a finite endeavor, with specific start and completion dates. A project is undertaken to create a unique product or service which brings about beneficial change or added value. This finite characteristic of projects stands in sharp contrast to processes, or operations, which are permanent or semi-permanent functional work to repetitively produce the same product or service.

MAJOR PROJECTS

To ensure the appropriate level of senior management oversight for significant projects, NOAA has established criteria to identify those projects which are considered major investments. Major projects in NOAA are defined as any project with life-cycle costs greater than the NOAA-established threshold of $250 million (FY 2005 constant dollars), or otherwise directed by DOC or a higher authority. The life-cycle cost determination should be computed over the service life for physical assets, and over 10 years for other types of projects.

Five criteria distinguish which NOAA projects qualify for the distinction of 'major' and therefore require direct senior level oversight. These criteria are explained in Table 3-5. The DUSO may also designate any project as a major project regardless of its life-cycle costs or criteria.

MONITORING MAJOR PROJECTS

More information on the management of NOAA's Major Projects is available by contacting the PPI office.

Major projects are monitored through their life-cycle by establishing KDPs. The requirement for KDPs for major projects is documented in NAO 216-108 regarding requirements management. A KDP is a significant milestone in the project life-cycle and results in an agency investment decision. In general, the KDPs are structured as follows:

KDP-1 [NEEDS IDENTIFICATION AND DEFINITION]:
Identification and definition of shortfalls, and the general magnitude of life-cycle costs that may be needed to address them.

KDP-2 [SOLUTION ALTERNATIVES IDENTIFICATION]: Selection of one or more alternatives to be advanced for further analysis (including research and pilot testing).

KDP-3 [SOLUTION SELECTION]: Selection of an approach, including project scope, review procedures, and commitment as appropriate to full-scale research and development.

KDP-4 [ACQUISTION/IMPLEMENTATION APPROVAL]: Commitment to full acquisition and/or operational implementation, with explicit approval of baseline objectives and project scope to include life-cycle cost, schedule, and performance goals.

For systems acquisitions, NAOs and DAOs may provide different and more specific requirements or definitions.

OMB 300's

OMB requires the completion of an Exhibit 300 to facilitate the collection of information for Congress and to ensure the case for business investments is made and tied to long-term goals, objectives, and performance. In general, an Exhibit 300 must be submitted with the official NOAA budget request for all major projects.

Table 3-5 Major project selection criteria

SELECTION CRITERIA	EXPLANATION
High development, operating or maintenance costs: acquisitions with life cycle costs that meet thresholds included in NAO 216-108 ($250M in FY 05)	While all projects require some level of oversight, the intent is to provide senior level input to those projects that have major fiscal impact.
High/broad scope of impact to agency's mission	Projects that are broad in scope are by nature high risk due to the organizational interaction and coordination required to maintain cost, schedule, and performance. Projects that do not have a high/broad scope of impact to the Agency's mission can be effectively monitored at the individual LO/SO or program level.
High fiscal and management risk	High-risk projects require the active engagement of senior managers in order to resolve identified risks and maintain cost, schedule, and performance objectives. Projects that do not have high fiscal and management risk can be effectively monitored at the LO or program level.
Unique product, service or result—not a bundling of efforts	It is difficult, if not impossible, to track all the permutations of a bundled effort. Bundled efforts tend to be program efforts rather than specific projects.
New acquisition starts vice current and ongoing levels of effort	The intent is to track efforts that have a defined beginning and end, not those that are operational in nature and continuously provide NOAA products and services.

Project Manager Responsibilities

- Facilitate the team process
- Collaborate with team to create and execute the project plan
- Serve as a liaison between customer and organization
- Monitor and reports progress

APPOINTING NOAA MAJOR PROJECT MANAGERS

Project Managers are responsible for managing the life-cycle of a project to meet requirements. One of the principal outcomes entailed in this responsibility is the delivery of projects on schedule, within budget, and with the required performance capability. All major projects will have an assigned project manager. The Project Manager is responsible for translating mission requirements into set project milestones and deliverables to ensure a satisfactory solution is delivered. The Project Manager establishes and maintains a process to manage change throughout the project's life-cycle. The Project Manager is responsible for preparing documentation to support the continuous and systematic review of progress as it relates to KDPs and meeting mission requirements.

Nominees for Major Project Managers must be at least a career level GS-14 or equivalent, and have leadership qualifications and subject area competencies. A strong Major Project Manager candidate will have the capability to coordinate and communicate program content with the NOAA senior leadership; provide overall integration, oversight, and assistance to the program's constituent projects; and effectively manage the successful accomplishment of a project that meets the requirements of the customer.

MAJOR PROJECT MANAGER TRAINING REQUIREMENTS

OMB's memorandum on the Federal Acquisition Certification for Program and Project Managers (**www.whitehouse.gov/omb/procurement/workforce/fed_acq_cert_042507.pdf**) outlines the essential competencies needed to be a Program or Project Manager. The certification program does not cover functional or technical competencies, such as those for IT or agency-specific competencies. The certification is required for Program and Project Managers that are assigned to major investments as defined in OMB Circular A-11, Part 7, Exhibit 300 (**www.whitehouse.gov/OMB/circulars/a11/current_year/s300.pdf**). The target completion date for the certification is one year from the date of assignment to the program or project. Project Managers assigned to programs considered major acquisitions should be senior-level certified or granted a waiver from their LO or SO. LOs and SOs can consider the competencies and experience of the Project Manager along with associated training. OMB recommends that interactive training be completed that encompasses strategic thinking, vision, and external awareness.

Education

The OEd mission is to improve the public's understanding and appreciation of NOAA science and the natural environment and resources that the agency is charged to protect, resulting in an educated constituency that can make informed decisions and take appropriate actions. In August 2007, Congress passed the America COMPETES Act, giving NOAA broad legislative authority to promote and coordinate formal and informal education.

The OEd develops the *NOAA Education Strategic Plan* to meet its goals of:

» Envisioning an environmentally-literate public developed through improved lifelong education in "NOAA-related" fields;

» Developing a future science, technology, engineering, and mathematics workforce, particularly from underrepresented groups, in disciplines critical to NOAA's mission; and

» Supporting 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.

The NOAA Education Strategic Plan is available at **www.education.noaa.gov/09_NOAA_Educ_Strategic_Plan_Color.pdf.**

Outcomes

» NOAA provides effective environmental education programs that address relevant topics and are based on solid science

» Educators understand and use environmental literacy principles

» Educators and students understand Earth systems and make informed decisions regarding the environment and its resources

» Lifelong learners utilize informal science education opportunities

» Education and research communities have an increased awareness of NOAA's mission, as well as student and potential career opportunities

» Students and teachers learn about and explore NOAA science and stewardship

» A well-qualified and diverse pool of students with science, technology, engineering, and mathematics degrees, particularly from underrepresented groups, are qualified for career opportunities at NOAA and related organizations

Evaluation is required for all NOAA environmental literacy efforts.

Basic Products and Services

The Educational Partnership Program (a component of OEd), along with Minority Serving Institutions, provides financial assistance to minority serving institutions to support collaborative research and training of students in NOAA-related sciences through competitive processes. This activity strengthens the capacity of, and promotes educational excellence and economic opportunities for, historically Black colleges and universities, Hispanic serving institutions, Tribal colleges and universities, and American Indian, Asian American, Pacific Island, and Alaska Native institutions.

Roles and Responsibilities

NOAA's **OEd** provides advice and counsel to the NOAA Administrator's office and DOC on matters dealing with education and leads the NOAA Education Council. In conjunction with the NOAA Education Council, the OEd coordinates education activities across NOAA and oversees the implementation of NOAA's Education Strategic Plan and education policy. OEd assists the NOAA Education Council in developing corporate policy and provides strategic advice and direction to NOAA leadership on education issues. OEd also runs grant programs to engage partners in delivering NOAA-related content through formal and informal education. These efforts help ensure that NOAA's education programs and activities are based on NOAA science and support the agency's cross-cutting priority of promoting environmental literacy.

LOs and SOs appoint senior staff members to NOAA's Education Council. Their primary responsibility is to serve as a forum to discuss ideas and proposals for NOAA-wide education activities and make recommendations to NOAA management on all aspects of NOAA's

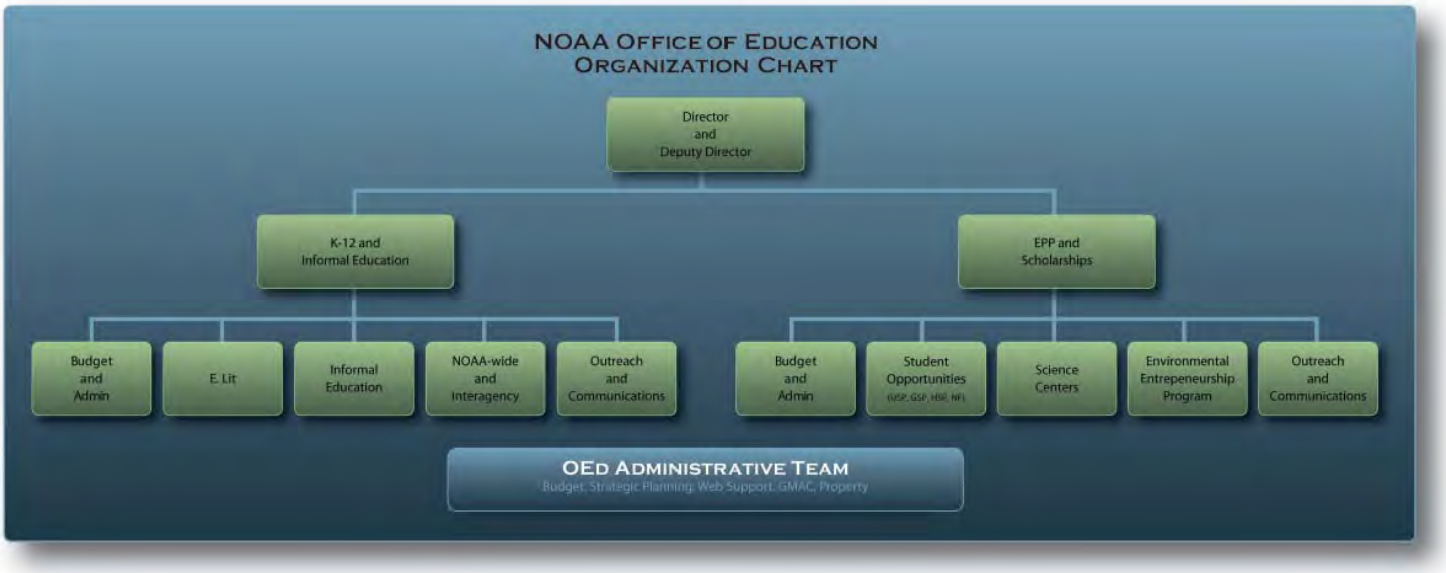


Figure 3-15
The OEd organization

educational activities. Council members represent their LO or SO interests and activities dealing with education and outreach programs and serve as the key contact on all issues affecting their office's interests.

The **EDUCATIONAL COUNCIL,** in conjunction with OEd, coordinates education activities across NOAA and oversees the implementation of NOAA's Education Strategic Plan and education policy.

More information on OEd and NOAA's Education Council is available at **www.oesd.noaa.gov** and **www.oesd.noaa.gov/council/index.html**.

Additional Information

NOAA has many educational programs that serve the interests of NOAA's diverse missions and legislative authorities. Education efforts are directed at students and teachers who deal with NOAA science-related subjects, such as oceanography and meteorology, and the interested public. Partnerships with other relevant organizations are key to the success of NOAA's programs, stretching dollars and expertise to the fullest.

Research

Preeminent research underpins NOAA's ability to provide accurate weather forecasts, protect and manage the Nation's coastal and ocean resources, and enable society to plan for and respond to climate change. NOAA is committed to conducting and sponsoring preeminent research, providing maximum value to society, all within a culture of transparency. Research in NOAA is conducted across the LOs by Federal laboratories and through partnerships with universities, the private sector, and science institutes across the country.

Research in NOAA is the foundation for an innovative and productive society and supports NOAA's mission to meet the Nation's economic, social, and environmental needs. As such, NOAA established the NOAA Research Council to ensure the agency's research activities are of the highest quality, meet long-range societal needs, take advantage of emerging scientific and technological opportunities, and shape a forward-looking research agenda.

Strategic Planning for Research

In 2005, the NOAA Research Council produced a 20-year "research vision" to provide overarching direction for the agency's research in view of the environmental challenges likely to face the Nation in the decades ahead. The vision document recognized NOAA's fundamental role in supporting policy and decisionmakers to address these challenges. The 20-year research vision is available at **www.nrc.noaa.gov/plans_docs/new_noaa.pdf**.

In 2008, the Research Council released its agency-wide research plan for FY 2008-2012. The plan defines an interdisciplinary, coordinated, cross-program approach to integrate research activities across the agency. This plan frames NOAA's research in the context of societal needs, encourages innovation through transformational research, and identifies specific research milestones and objectives to reach the organization's goals. NOAA's five-year research plan is available at **www.nrc.noaa.gov/plans.html**.

NOAA has also adopted a Transition of Research to Application policy (NAO 216-105) and associated implementation procedures, which have established a consistent process within NOAA for identifying mature research and for accelerating the rate at which this research transitions into applications.

Mission of the NOAA Research Council

To ensure that all NOAA services are based on sound science and that all NOAA research programs and long-term plans are consistent with NOAA's mission, the Strategic Plan and recommendations contained in NRC and SAB research reviews.

Research Council Structure

Research across NOAA is guided by the NOAA Research Council. The Council provides corporate oversight and develops policy to ensure that NOAA research activities are accomplished in an efficient and cost-effective manner.

The **NOAA RESEARCH COUNCIL** is composed of voting members from each of the LOs, a Chair and a Vice Chair, and three ex-officio members who chair the Council's standing advisory committees discussed below. The Chair is currently held by the AA of OAR. More information about the NOAA Research Council is available at **www.nrc.noaa.gov**.

The **COMMITTEE FOR MONITORING RESEARCH** is a standing advisory committee established by the NOAA Research Council in May 2007. The Committee is dedicated to the ongoing and systematic monitoring of NOAA's research enterprise to ensure research activities are effectively linked to milestones and ensure the

ongoing quality, relevance, and value of NOAA's research. Among the outcomes of a well-designed monitoring approach is a balanced investment of resources across the research and development (R&D) portfolio and the ability to communicate compelling evidence to stakeholders, DOC, OMB, and Congress of the benefits of NOAA's research to society. The role of the Committee is to conduct investigations and analyses that inform and guide NOAA's Research Council in the establishment of:

» Standard reporting of existing and development of new performance measures for research;

» A monitoring strategy to track funding and performance; and

» Consistent and transparent evaluation practices.

The **SOCIAL SCIENCES COMMITTEE** is a standing advisory committee established in February 2007 to strengthen, coordinate, and integrate the agency's social science research and analysis capabilities.

The **COOPERATIVE INSTITUTES COMMITTEE** was established by NAO 216-107 in September 2005 to ensure compliance with NOAA's policy on Cooperative Institutes (CIs) and, when requested, to provide information to assist the Research Council with general CI program oversight. Additional information is available at **www.nrc.noaa.gov/ci/**.

Cooperative Institutes

NOAA's CIs are academic institutions that collaborate in a large portion of NOAA's research and play a vital role in broadening NOAA's ability to provide the expanding array of environmental assessment and predictions required to address the Nation's forecasting needs.

Because many CIs are co-located with NOAA research laboratories, there is a strong, long-term collaboration between scientists in the laboratories and those in the university. CIs not co-located with a NOAA laboratory often serve diverse research communities and research programs throughout NOAA.

CIs serve an additional important function—they help educate and train the next generation of scientists for NOAA and the Nation. Many of the cooperative agreements between NOAA and our academic partners provide for formal NOAA sponsorship of students through fellowships.

Research and Development

The NEC approved the use of the National Science Foundation definitions for R&D in NOAA on January 13, 2004.

As defined below, the terms "research," "development," "demonstration activities," and "R&D plant" include all direct, incidental, or related costs resulting from, or necessary to, the performance of R&D, and costs of R&D plant, regardless of whether the R&D are performed by a Federal agency (intramurally) or performed by public or private individuals and organizations under a grant or contract (extramurally). R&D exclude routine product testing, quality control, mapping and surveys, collection of general purpose statistics, experimental production, and the training of scientific personnel.

RESEARCH is systematic study directed toward fuller scientific knowledge or understanding of the subject studied. Research is classified as either basic or applied according to the objectives of the sponsoring agency.

» In *basic* research, the objective of the sponsoring agency is to gain fuller knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications toward processes or products in mind.

» In *applied* research, the objective of the sponsoring agency is to gain knowledge or understanding necessary for determining the means by which a recognized and specific need may be met.

DEVELOPMENT is the systematic use of the knowledge or understanding gained from research, directed toward the production of useful materials, devices, systems, or methods, including the design and development of prototypes and processes. It excludes quality control, routine product testing, and production.

DEMONSTRATION ACTIVITIES that are part of research or development (i.e., that are intended to prove or to test whether a technology or method does, in fact, work) should be included. Demonstrations intended primarily to make information available about new technologies or methods should not be included.

R&D PLANT (i.e., R&D facilities and fixed equipment, such as reactors, wind tunnels, and particle accelerators) includes the acquisition of, construction of, major repairs to, or alterations in structures, works, equipment, facilities, or land for use in R&D activities at Federal or non-Federal installations. Excluded from the R&D plant category are expendable or movable equipment (e.g., spectrometers, microscopes) and office furniture and equipment. Also excluded are the costs of pre-design studies (e.g., those undertaken before committing to a specific facility). These excluded costs should be reported under total conduct of R&D. Obligations for foreign R&D plants are limited to Federal funds for facilities located abroad and used in support of foreign R&D.

Research Offices and Program

The NOAA research infrastructure includes a system of Federal laboratories and science centers as well as ship, aircraft, and other observing systems and platforms. This infrastructure is enhanced through assets provided by our external partners. NOAA's labs, centers, and cooperative institutes are listed in Table 11.1 of NOAA's research plan at **www.nrc.noaa.gov/plans_docs/5yrp_2008_2012_final.pdf**.

Transition of Research to Application

NOAA is faced with the challenge of reducing impediments that limit the efficient transfer of research findings into products and services for our stakeholders. NOAA is committed to maximizing the value of its research and ensuring the successful transition of research to application. Ensuring successful transitions will allow NOAA to provide the best, most up-to- date information and services. Significant steps have been taken to ensure that the transition of research to application is streamlined and consistent. NOAA's Policy on Transition of Research to Application (NAO 216-105) was issued to accelerate transition to application of both internal and external research. Additionally, NOAA issued implementation procedures which provide a generic framework of activities and checkpoints to promote flexibility in achieving efficient and effective transition.

Throughout the transition process, NOAA management must review transition projects and ensure project deliverables continue to meet valid NOAA mission requirements, as defined in NAO 216-108. Additionally, within the transition process there are three checkpoint reviews. These checkpoints are formal decision points that establish approval to continue with and move to the next step in the transition process. Ultimate responsibility for checkpoint reviews rests with the LOs and their transition managers.

Roles and Responsibilities

Outlined below are the roles and responsibilities for those accountable for ensuring research is successfully transitioned to application. Also identified are entities that have the authority to designate the project managers and transition teams responsible for developing and executing the transitions.

The **NOAA ADMINISTRATOR**, **ASSISTANT SECRETARY**, and **DUSO** provide top management support for implementation of NOAA's Transition of Research to Application policy (NAO 216-105) and the development and implementation of associated procedures.

LO AAs and the **OMAO DIRECTOR** are responsible for promoting the goals and implementing the requirements of this policy, approving transition plans; providing staff support for the appropriate Transition Teams, providing oversight for all projects in their LO, ensuring a LO quarterly transition project review is conducted, approving final decisions regarding the transition of research results, and reporting on the execution status of transition projects per instructions provided by the DUSO.

LO TRANSITION MANAGERS are responsible for managing the LO transition portfolio; fostering applicable LO transition projects, tracking and providing timely reports to LO leadership on the status of the portfolio, ensuring the development of appropriate Transition Plans, and coordinating with other LO Transition Managers when appropriate.

TRANSITION PROJECT LEADS are responsible for managing the transition project and all associated activities; leading the transition team, working with the LO Transition Managers to foster their transition projects, and ensuring the development of an appropriate Transition Plan.

TRANSTION TEAMS include representatives from the research and applications communities and are responsible for preparing Transition Plans, conducting transition activities, and identifying, reporting, and responding to significant deviations in the execution of the Transition Plan.

The **NOAA RESEARCH COUNCIL** is responsible for providing comments regarding the research portfolio which includes identifying the readiness of research results to transfer and the relative priority of these projects, overseeing NOAA activities to identify applicable external research results, and ensuring the NOAA five-year research plan identifies and plans for research results, in that timeframe, estimated to be transitioned to applications.

Other applicable councils are responsible for providing comments regarding the identification and readiness of projects for transfer and the relative priority of these projects.

CHAPTER 4 STRATEGIC PLANNING

The strategic planning process establishes the agency's mission, vision and long-term goals, and short-term objectives and strategies, allowing NOAA's management to make reasoned investment choices and the American people to monitor NOAA's performance. Strategic planning accounts for long-term economic, technological, and environmental trends and challenges that will shape the agency's future over the next 25 years. These expectations are then communicated internally to NOAA employees and externally to NOAA's partners and stakeholders. NOAA's strategic planning efforts set the course for the agency.

Agency strategy requires decisions about what an agency will do and what it will not do. Specific targets communicate agency strategy, and distinguish what is a priority from that which is not.

Strategy explains, at the highest level, what the agency intends to do and why it intends to do it. It relates a mission statement (with a corresponding set of functions) to a vision statement (with a corresponding set of long-term strategic goals) to succinctly convey NOAA's fundamental purpose, strategic direction, and value to society. In the simplest form, a strategic plan identifies what NOAA should produce in the future (i.e., outputs, activities, targets), and why those are important. Distinguishing between outcomes and outputs gives flexibility to change agency activities while staying true to its overall purpose.

NOAA's strategic goals are outcome-oriented—that is, they specify future conditions that the agency is committed to achieving, and how society will benefit from NOAA's success. Three key terms relate to outcomes:

» **VISION** describes an envisioned future state of society and the environment that, implicitly, cannot be achieved without NOAA. The vision describes long-term success in terms of the value that NOAA will generate for society—in effect, why the agency exists. The timeframe for NOAA's vision is 25 years (i.e., through the year 2035).

» **GOALS** specify the components of NOAA's vision for 2035, translating the vision into a limited number of high-level results that NOAA will seek to achieve. Collectively, NOAA's goals encompass all agency investments and thus, are the foremost programmatic rationale for budget requests. The timeframe for NOAA's strategic goals is also 25 years.

» **OBJECTIVES** For each of its long-term goals and enterprises, NOAA specifies a corresponding set of near-term (five-year) objectives that represent concrete, measurable steps toward that result. Objectives further describe each goal or enterprise statement by detailing the societal and environmental benefits that NOAA seeks to achieve in the short-term. The objectives within a goal or enterprise may or may not be comprehensive of agency activities toward that result.

In particular instances, outcomes at every level (vision, goal, and objective) should be derived from an understanding of national and international trends, and should respond to evolving challenges to and opportunities for the Nation and the international community. Goals and objectives should be specific, measureable, attainable, realistic, and time-bound (SMART).

Power of a Goal

- Goals focus and communicate
- Goals motivate
- Goals enlist assistance
- Goals focused on outcomes can reduce regulatory resistance
- Goals support cooperation across organizational boundaries

Types of Goals

Outcome-focused
Outcome goals pertain to societal conditions, including health and environmental conditions.

Output-focused
Activity and procedural goals include inspection or permit renewal targets, project milestones, and response timeliness targets.

NOAA achieves its outcomes through the outputs it produces (e.g., goods and services). Three key terms relate to outputs:

» **MISSION** summarizes the agency's fundamental mandates and responsibilities. It is a succinct and distinctive statement of what NOAA does. The mission statement encapsulates the set of statutory requirements that drive NOAA's mission functions, and is assumed to be stable over the planning period.

» **FUNCTIONS** are required to execute the mission, consistent with the NOAA Functional Model. NOAA's functions are the highest-level categorization of NOAA's capabilities and are comprehensive—that is, all activities conducted by NOAA can be traced to a function. In this manner, all contributors to NOAA's mission can see how their activities support the plan.

» **CAPABILITIES** are the tangible and intangible skills and assets that NOAA uses to generate outputs. NOAA's capabilities represent what is needed to achieve NOAA's short-term (five-year) objectives. The capabilities described within any function may or may not encompass all possible capabilities within that function.

The Next-Generation Strategic Plan

NOAA's NGSP, adopted in the fall of 2010, charts a new and compelling future for NOAA and the Nation. NOAA developed the NGSP through an iterative process of data gathering, analysis, revision, and vetting of those things most fundamental to the work of the agency—its mission and vision for the future, long-term goals, objectives to meet those goals, and outcomes as evidence of the agency's progress.

NOAA's Next-Generation Strategic Plan is available at **www.ppi.noaa.gov/ngsp.html**.

An effective strategic plan is a basis for stakeholder engagement. It provides a starting point for informed conversation and debate through which broad agreement on common challenges and opportunities can be generated. The plan is more than an advertisement for what the agency does. It is a tool for cultivating informed customers and collaborating with partners who are best positioned to help NOAA improve its service to the Nation. NOAA has relied heavily on stakeholder input and internal assessments of the agency's mission and the external trends and forces that shape the future.

NOAA's SMART Objectives

- Specific
- Measurable
- Attainable
- Realistic
- Time-bound

The NGSP emerged from extensive consultations with NOAA's staff and its extended community of partners and collaborators in the public, private, and academic sectors. NOAA conducted a one-day national stakeholder forum in Washington, DC, regional stakeholder forums across the country, and an online survey to ensure NOAA staff and their partners shaped the plan. Based on staff and stakeholder input on key trends and uncertainties, the NGSP specifies a focused set of long-term goals and corresponding near-term objectives that:

- Reflect the Administration's policy priorities;
- Respond to long-term threats and opportunities external to NOAA;
- Specify long-term societal benefits;
- Are SMART;
- Are feasible with respect to NOAA's existing and potential functions; and
- Build upon progress achieved under NOAA's previous plan.

NOAA's Mission and Vision

Figure 4-1 displays NOAA's mission, vision, goals, and Enterprise Objectives.

NOAA'S MISSION:
SCIENCE, SERVICE, AND STEWARDSHIP
To understand and predict changes in climate, weather, oceans, and coasts
To share that knowledge and information with others, and
To conserve and manage coastal and marine ecosystems and resources

NOAA's mission statement summarizes the agency's fundamental mission responsibilities.

NOAA'S VISION OF THE FUTURE:
RESILIENT ECOSYSTEMS, COMMUNITIES, AND ECONOMIES
Healthy ecosystems, communities, and economies that are resilient in the face of change

NOAA's vision of the future is one where societies and natural ecosystems reinforce each other and are mutually resilient in the face of sudden and prolonged change.

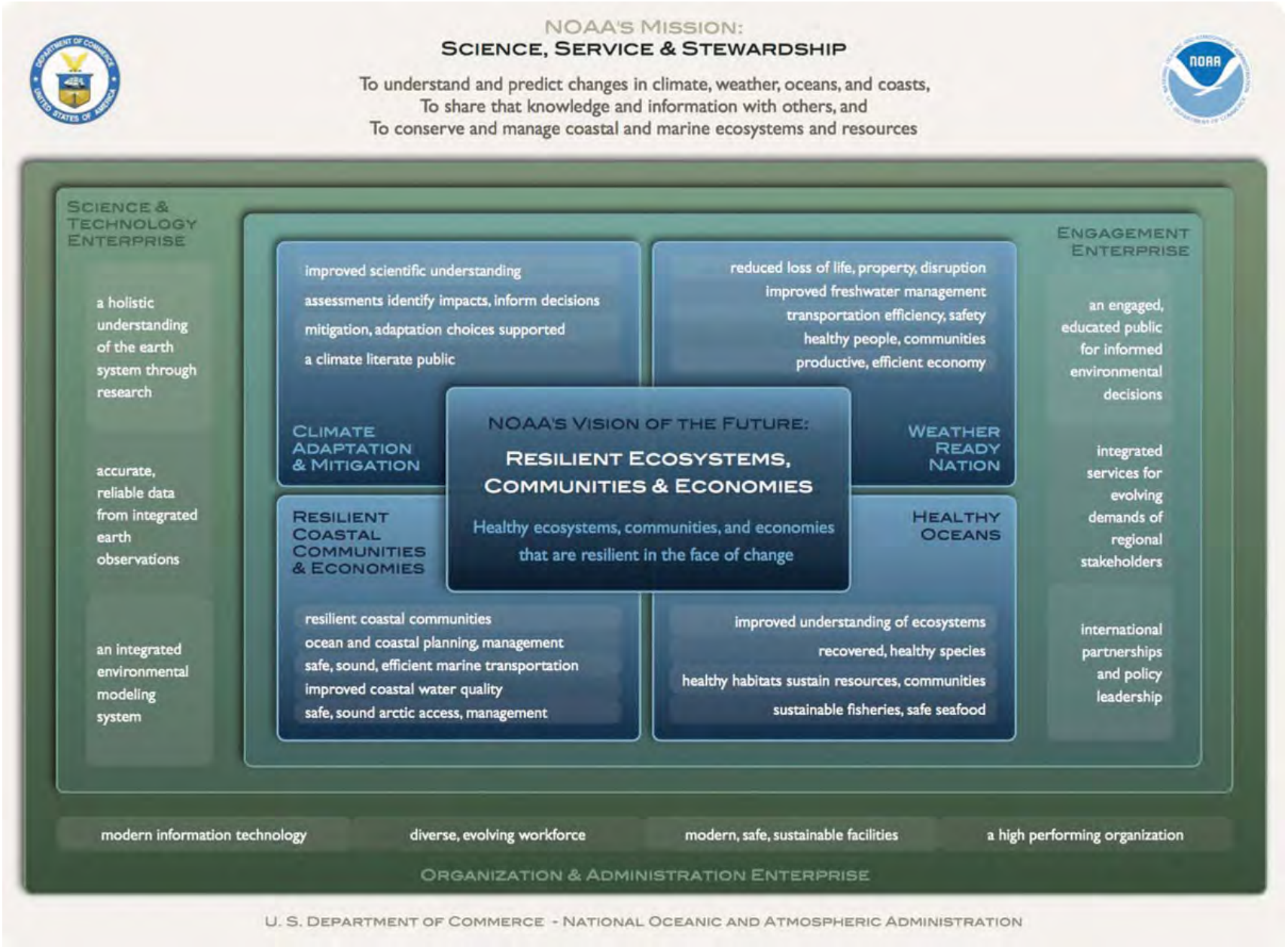


Figure 4-1
The NGSP on a Page

Long-term Goals

The NGSP outlines NOAA's four long-term goals related to the agency's core mission functions for weather forecasting, fisheries management, habitat restoration, and marine transportation.

CLIMATE ADAPTATION AND MITIGATION

An informed society anticipating and responding to climate and its impacts

Projected future climate-related changes include increased global temperatures, melting sea ice and glaciers, rising sea levels, increased frequency of extreme precipitation events, acidification of the oceans, modifications of growing seasons, changes in storm frequency and intensity, air quality, alterations in species' ranges and migration patterns, earlier snowmelt, increased drought, and altered river flow volumes. Impacts from these changes are regionally diverse, and affect numerous sectors related to water, energy, transportation, forestry, tourism, fisheries, agriculture, and human health. A changing climate will alter the distribution of water resources and exacerbate human impacts on fisheries and marine ecosystems, which will result in such problems as overfishing, habitat destruction, pollution, changes in species distributions, and excess nutrients in coastal waters. Increased sea levels are expected to amplify the effects of other coastal hazards as ecosystem changes increase invasions of non-native species and decrease biodiversity. The direct impact of climate change on commerce, transportation, and the economy is evidenced by retreating sea ice in the Arctic, which allows the northward expansion of commercial fisheries and provides increased access for oil and gas development, commerce, and tourism.

Within this goal, NOAA will pursue four objectives over the next five years:

» Improved scientific understanding of the changing climate system and its impacts;

» Assessments of current and future states of the climate system that identify potential impacts and inform science, service, and stewardship decisions;

» Mitigation and adaptation choices supported by sustained, reliable, and timely climate services; and

» A climate-literate public that understands its vulnerabilities to a changing climate and makes informed decisions.

WEATHER-READY NATION

Society is prepared for and responds to weather-related events

A weather-ready nation is a society that is able to prepare for and respond to environmental events that affect safety, health, the environment, economy, and homeland security. Urbanization and a growing population increasingly put people and businesses at greater risk to the impacts of weather, water, and climate-related hazards. NOAA's capacity to provide relevant information can help create a society that is more adaptive to its environment; experiences fewer disruptions, dislocation, and injuries; and that operates a more efficient economy.

Over the long-term, climate change may increase the intensity and even the frequency of adverse weather events, which range from drought and floods, to wildfires, heat waves, storms, and hurricanes. Changing weather, water, and climate conditions affect the economic vitality of communities and commercial industries, including the energy, transportation, and agriculture sectors. Environmental information

aligned with user needs will become ever more critical to the safety and well-being of those exposed to sudden or prolonged hazards and is essential to sustain competitive advantage, expand economic growth, and secure the Nation.

Within this goal, NOAA will pursue five objectives over the next five years:

» Reduced loss of life, property, and disruption from high-impact events;

» Improved freshwater resource management;

» Improved transportation efficiency and safety;

» Healthy people and communities due to improved air and water quality services; and

» A more productive and efficient economy through environmental information relevant to key sectors of the U.S. economy.

HEALTHY OCEANS

Marine fisheries, habitats, and biodiversity sustained within healthy and productive ecosystems

Ocean ecosystems provide many benefits to humans. They provide food and recreational opportunities, and they support economies. Yet the resources that our marine, coastal, and Great Lakes environments present to us are already stressed by human uses. Habitat changes have depleted fish and shellfish stocks, increased the number of species that are at-risk, and reduced biodiversity. Because humans are an integral part of the ecosystem, declines in ecosystem functioning and quality directly impact human health and well-being. As long-term environmental, climate, and population trends continue, global demands for seafood and energy, recreational use of aquatic environments, and other pressures on habitats and over-exploited species will increase as will concerns about the sustainability of ecosystems and safety of edible fish. Depleted fish stocks and declines in iconic species (such as killer whales, salmon, and sea turtles) result in lost opportunities for employment, economic growth, and recreation along the coasts. In addition, climate change impacts to the ocean, including sea level rise, acidification, and warming, will alter habitats and the relative abundance and distribution of species. Climate change poses serious risks to coastal and marine ecosystems productivity, which, in turn, affects recreational, economic, and conservation activities.

Within this goal, NOAA will pursue four objectives over the next five years:

» Improved understanding of ecosystems to inform resource management decisions;

» Recovered and healthy marine and coastal species;

» Healthy habitats that sustain resilient and thriving marine resources and communities; and

» Sustainable fisheries and safe seafood for healthy populations and vibrant communities.

RESILIENT COASTAL COMMUNITIES AND ECONOMIES

Coastal and Great Lakes communities that are environmentally and economically sustainable

The complex interdependence of ecosystems and economies will grow with increasing uses of land, marine, and coastal resources, resulting in particularly heavy economic and environmental pressures on the Nation's coastal communities. Continued growth in coastal populations, economic expansion, and global trade will further increase the need for safe and efficient maritime transportation. Similarly, the Nation's profound need for conventional and alternative energy presents many economic opportunities, but will also result in greater competition for ocean space, challenging our ability to make informed decisions that balance conflicting demands as well as economic and environmental considerations. At the same time, the interdependence of ecosystems and economies makes coastal and Great Lakes communities increasingly vulnerable to chronic—and potentially catastrophic—impacts of natural and human-induced hazards, including climate change, oil spills, harmful algal blooms and pathogen outbreaks, and severe weather hazards.

Within this goal, NOAA will pursue five objectives over the next five years:

» Resilient coastal communities that can adapt to the impacts of hazards and climate change;

» Comprehensive ocean and coastal planning and management;

» Safe, efficient, and environmentally-sound marine transportation;

» Improved coastal water quality supporting human health and coastal ecosystem services; and

» Safe, environmentally-sound Arctic access and resource management.

Enterprise Objectives

NOAA's strategy would be incomplete without detailing the enterprise-wide capabilities required to achieve the environmental, social, and economic outcomes targeted by the strategic goals. NOAA's enterprise functions comprise three groups: foundational science and technology functions that generate research and development, models, and environmental observations; distinct functions for engaging partners and customers; and underlying administration and management functions that support all NOAA work. These cross-cutting functions define NOAA's distinctive capabilities. The objectives listed represent cross-cutting requirements for addressing NOAA's strategic goals as a whole.

SCIENCE AND TECHNOLOGY ENTERPRISE

NOAA's vision centers on a holistic understanding of the interdependencies between human health and prosperity and the intricacies of the Earth system. Achieving this level of understanding presents an overarching, long-term scientific and technical challenge to NOAA: to develop and apply holistic, integrated Earth system approaches to understand the processes that connect changes in the atmosphere, ocean, space, land surface, and cryosphere with ecosystems, organisms and humans over different scales.

Within this enterprise, NOAA will pursue three objectives over the next five years:

» A holistic understanding of the Earth system through research;

» Accurate and reliable data from sustained and integrated Earth observing systems; and

» An integrated environmental modeling system.

ENGAGEMENT ENTERPRISE

As the challenges NOAA must address become more complex, the agency will need increasingly sophisticated organizational mechanisms to understand user needs and engage stakeholders and customers across local, regional, and international levels. Many of the challenges that NOAA helps address do not stem from a lack of information, but from an uneven distribution of information. The best way for NOAA to meet the needs of its stakeholders is often to better deliver data and knowledge to those who have not yet accessed it. NOAA must understand these needs and respond to them. Conversely, NOAA's next breakthrough in research, development, operational improvement, or policy action may depend upon the unique knowledge or needs of a partner or customer. NOAA must fully engage with society to be most effective as a service agency.

Within this enterprise, NOAA will pursue three objectives over the next five years:

» An engaged and educated public with an improved capacity to make scientifically informed environmental decisions;

» Integrated services meeting the evolving demands of regional stakeholders; and

» Full and effective use of strategic international partnerships and policy leadership to achieve NOAA's mission objectives.

ORGANIZATION AND ADMINISTRATION ENTERPRISE

Supporting all of NOAA's functions is the management of resources, an essential function of any organization. NOAA's managers, whether at headquarters or in the field, have common responsibilities to manage the investment of tax-payer dollars, deploy physical infrastructure, and retain a qualified workforce. NOAA's managerial efforts avail the rest of the agency of the staff, the infrastructure, and the financial capital it needs to get the job done. Effective management of these resources fosters an organizational environment in which core competencies can be used most effectively and final products and services can have the greatest impact.

Within this enterprise, NOAA will pursue three objectives over the next five years:

» Diverse and constantly evolving capabilities in NOAA's workforce;

» A modern IT infrastructure for a scientific enterprise; and

» Modern, safe, and sustainable facilities; and

» A high-performing organization with integrated, efficient, and effective business systems and management processes.

The NGSP-SEE Link

The NGSP establishes a series of clearly defined long-term goals and five-year objectives that anticipate and prepare NOAA for the challenges and opportunities it will face over the next 25 years. The objectives identified in the NGSP are the basis for NOAA's corporate planning, performance management, and stakeholder engagement over the next five years. Objectives are specific outcomes NOAA can achieve on the path to broader, long-term goals and toward a more capable, flexible enterprise. They are measureable and can be affected by specified activities over a five-year period.

While uncertainty is inherent in any long-term planning initiative, the NGSP allows NOAA to adapt to a changing environment while continuing to strive toward its vision of resilient ecosystems, communities, and economies, and deliver on its mission of science, service, and stewardship. With the NGSP goals in mind, the SEE process provides a detailed annual roadmap for each LO, SO, and council, which will allow for improved execution of programs, and ultimately, enhanced accountability. NOAA's LOs and SOs will be accountable for executing the strategies laid out in the NGSP. Where there are shared capabilities to achieve an objective, there will also be joint accountability for budgeting, executing, and performing toward that objective.

NOAA will systematically monitor and evaluate performance toward the outcome-oriented goals and objectives in the NGSP. Evaluating performance will allow NOAA to learn from its successes and failures and continually improve itself as an organization and better deliver on the promise of its mission of science, service, and stewardship. NOAA's performance measures, including those required under the Government Performance and Results Act (GPRA), are published annually in the NOAA Annual Performance Plan and Performance and Accountability Report.

Derivative Strategic Plans

To bring goals alive, measurement is essential. Without measurement, goals are merely words.

In order to function cleanly and efficiently, NOAA has one strategic plan. The NGSP sets the course; establishes the highest-level vision, goals, and objectives for the agency's efforts against which to measure performance; and communicates these expectations internally to NOAA employees and externally to NOAA partners and stakeholders.

The NGSP supports the DOC's Strategic Plan and Annual Performance Plan. There is a direct relationship between NOAA's goals and objectives and the goals and performance measures included in the annual budget submission to DOC. DOC uses this information for both its Annual Performance Plan and its Performance and Accountability Report, which integrate outcomes and performance measures across the Department.

In the same way that NOAA develops its strategic plan to support DOC's Strategic Plan and Annual Performance Plan, NOAA's LOs and SOs may develop derivative strategic plans (second-tier strategic plans) to execute the strategic goals outlined in the NGSP. These plans serve as the bridge between the customer-focused NOAA strategic goals (on the "demand side") and the development and delivery of products and services associated with achieving those goals (on the "supply side"). Derivative plans should use the same key terms as NOAA's strategic planning and identify outcomes, goals, and objectives that concretely support NOAA's corporate-level strategic goals, objectives, and outcomes. They should detail specific products and service types, the programs and projects necessary to realize them, and how their efforts contribute toward achieving NOAA's strategic goals.

Implementation Plans (IPs, discussed in Chapter 5) required for the SEE process are a form of a derivative plan. IPs are required to be written by LO/SO and council strategic leads assigned to an NGSP goal and Enterprise Objective.

Derivative plans support the development of Annual Operating Plans (AOPs) detailing the actions and milestones to be achieved in a given FY based on stated goals, objectives, outcomes, and planned outputs, as well as on annual appropriations. Derivative plans establish the objectives for employee performance plans. Each LO and SO is encouraged to develop policies and procedures for performance evaluation showing the linkage of their derivative plan to NOAA's strategic goals and to the functions and activities of the office (AOPs and employee plans).

Councils may also coordinate with LOs and SOs on the development of derivative plans. These plans must also articulate support for the accomplishment of NOAA's strategic goals and objectives using the same key terms. These plans guide the work horizontally across the organization by establishing objectives and targets toward functionally-specific objectives and outcomes.

Derivative plans include infrastructure plans. These plans provide a framework by which capital asset planning and management decisions are made. The infrastructure plans must demonstrate support for NOAA's mission, although this may be indirect. Those plans currently in use or in development include:

- Facilities Master Plan,
- Satellite Strategic Plan,
- Fleet Recap Plan,
- Aircraft Recap Plan, and
- IT Strategic Plan.

Derivative strategic plans that are intended to be distributed to external partners or stakeholders must meet several criteria. They must explicitly and succinctly state:

» How the derivative (second tier) goals, objectives, and/or outcomes that define the envisioned future state correspond and support corporate-level strategic goals and enterprise objectives;

» How the activities are to be undertaken;

» How these activities meet the derivative goals, objectives, and/or outcomes;

» What organizational entities will be conducting the activities; and

» What the outputs of these activities are and how these outputs will realize the derivative goals, objectives, and/or outcomes.

Derivative plans intended to be externally distributed must be reviewed by PPI for consistency with the NGSP. PPI will also assist in developing derivative plans and should be consulted early in the development process.

NOAA's *Education Strategic Plan 2009-2029*, developed by the NOAA Education Council, is available at **www.oesd.noaa.gov/council**.

CHAPTER 5
STRATEGY EXECUTION AND EVALUATION

The SEE process is designed to provide a detailed roadmap for accomplishing the long-term goals and five-year objectives established within the NGSP outlined in Chapter 4. The unique set of SEE products and decision points will help improve the execution of programs, enhance accountability, and allow NOAA to adapt to a changing environment. SEE strengthens the linkage of strategy to execution, builds NOAA's capacity to learn and improve through program evaluation, and increases the efficiency of agency-wide decisionmaking. The purpose, timing, and responsible parties within the SEE decisionmaking process are described in Table 5-1.

Table 5-1 The SEE Process

PRODUCT	SEE PHASE	PURPOSE	RESPONSIBLE PARTY
Annual Guidance Memorandum (AGM)	Strategy	Focuses planning on Administration's strategic priorities (for out-year and next year's budget); identifies fiscal constraints	NOAA Administrator, PPI
Implementation Plan (IP)	Strategy	Outlines strategic performance expectations and resource requirements by strategic objective; offers risk-based assessment of choices	Goal and Enterprise Objective Leads (LOs and SOs)
Corporate Portfolio Analysis (CPA)	Strategy	Analyzes IPs to identify key issue and corporate priorities for the next budget formulation phase; draws attention to long-term concerns for leadership; concludes with NEP/NEC decision	PPI, NOAA CFO, NBO, NEP/NEC
NOAA Budget Submission	Strategy	Justifies NOAA funding request to DOC, OMB, Congress; describes performance measurements and targets	NOAA CFO, NBO, LOs and SOs CFOs
Corporate Portfolio Review (CPR)	Execution	Reassesses commitments made in CPA; reconciles IPs and performance expectations with appropriation	NOAA CFO, NBO
Annual Operating Plan (AOP)	Execution	States how LO and SOs will execute and evaluate annual appropriation	LOs and SOs
Annual Performance Plan and Performance and Accountability Report	Execution	Report progress made on GPRA measures to OMB	NOAA CFO
Progress to Plan (P2P)	Evaluation	Assesses progress toward NGSP objectives; evaluates executed programs to determine what has been working, what has not, and what might be changed for better performance	PPI
Mid-year and End-of-Year Execution Review	Evaluation	Report on progress toward meeting annual priorities	LOs and SOs

From PPBES to SEE

Up-to-date information about SEE, including reviews of PPBES, is available to NOAA staff at **https://www.see.noaa.gov**.

In 2002, NOAA adopted PPBES to execute its strategic plan. PPBES facilitated substantial communication and coordination across LOs and SOs toward a "one-NOAA" strategy. It also generated a large number of ideas for new or revised investments, including the Integrated Ocean Observing System (IOOS), which is a vibrant component of NOAA's portfolio of science, service, and stewardship.

In the summer of 2009, NOAA's leadership reviewed the communication procedures and management structure within PPBES to determine how NOAA could enhance its efficiency, effectiveness, and evaluation. They determined that NOAA spent too much time and effort on planning and analyzing alternatives, but too little on performance evaluation. PPBES had limited transparency in corporate decisionmaking and limited accountability with regard to execution.

As a result, PPI was tasked with creating a new decisionmaking schedule and product set that would maintain the positive attributes of PPBES while increasing responsiveness to the budgetary, strategic, and performance management requirements of DOC. NOAA Administrator Lubchenco's decision memo dated September 27, 2010, approved the transition and outlined next steps in SEE implementation.

SEE keeps the benefits of PPBES while reducing inefficiencies. As designed, the new SEE process will provide three primary benefits to NOAA:

» **STRENGTHEN THE LINKAGE OF STRATEGY TO EXECUTION** LOs and SOs will be directly accountable for implementing NOAA's strategic plan and associated annual priorities, each of which support the Strategic Plan for DOC.

» **BUILD NOAA'S CAPACITY TO LEARN AND IMPROVE THROUGH PROGRAM EVALUATION** By leveraging existing performance metrics and evaluation methods, NOAA will approach performance evaluation in the systematic and rigorous manner that is expected by DOC and OMB.

» **INCREASE THE EFFICIENCY OF NOAA-WIDE DECISIONMAKING** The SEE process features planning and executing with the same accounting structure, the fiscal constraints introduced in the planning phase, and streamlined decision processes, but with fewer products.

Governance

The new SEE process unifies responsibility for planning and execution and uses formal documents to codify cross-LO interdependencies for performance. Table 5-2 identifies the entities responsible for results, reporting, and coordination of NOAA's strategy. The new governance structure of SEE builds upon the strengths of PPBES, but simplifies the approach and focuses on achieving the NGSP.

Table 5-2 Responsible Entities

GOAL	ACCOUNTABLE FOR RESULTS / LEAD FOR COORDINATION AND REPORTING
Climate Adaptation and Mitigation	Strategic Climate Goal
Weather-ready Nation	NWS
Healthy Oceans	NMFS
Resilient Coastal Communities and Economies	NOS

ENTERPRISE OBJECTIVE	COORDINATION MECHANISM	LEAD FOR COORDINATION AND REPORTING
A holistic understanding of the Earth system through research	Research Council	OAR
Accurate, reliable data from integrated Earth observations	NOSC, Fleet Council	NOSC Co-chairs, Fleet Council Chair
An integrated environmental modeling system	Research Council	OAR
An engaged and educated public for informed environmental decisions	Education Council, Constituent Affairs Network	Oed, OCEA
Integrated services for evolving demands of regional stakeholders	EOG, Regional Collaboration Teams	Office of Policy
Scientific leadership in international environmental policy	IAC	OIA
Diverse capabilities, evolving workforce	HCC	WFMO
A modern information technology infrastructure	CIO Council, NITRB	CIO
Modern, safe, and sustainable facilities	Safety Council, FIMB	Safety Council Chair and FIMB Chair
A high performing organization with integrated, efficient, and effective service delivery	CFO/CAO Council	CFO

Strategy

Priorities and targets communicate how NOAA will balance the tradeoffs it faces and help the workforce understand where to focus its energies and what to put aside.

Strategy is a specific course of action chosen to achieve a specific outcome. Strategy in SEE is a course of action in which the agency focuses attention, aligns the organization, assesses options, and requests its budget — all making NOAA ready to best execute and evaluate programs. NOAA's strategy is defined by the AGM, IPs, Corporate Portfolio Analysis (CPA), and budget submission.

Annual Guidance Memorandum

Each year, the NOAA Administrator uses the AGM to establish priorities and institute adjustments to strategy for the upcoming execution year, budgeting year, and five planning years. Within the long-term framework of the NGSP, the AGM modifies NOAA's strategy based upon changes in the external environment, performance results, prior year performance, and administration priorities. The AGM functions as the initial bookend for the planning process, while the CPA (discussed later in this chapter) provides its closure. Fiscal planning assumptions are provided to guide AOP and IP development. A statement of progress, relevant trends, and the priorities for the next fiscal year's AOP are also incorporated.

Implementation Plans

The purpose of the IP is to:

» Explain how the NGSP will be accomplished;

» Establish the benchmark against which evaluation of success is measured;

» Capture the relationship among enterprise objectives necessary to accomplish NGSP goals and objectives; and

» Link strategy to budget formulation.

The seven-year time period covered in the IP includes the execution year, budget submission year, and five planning years. The IP is designed to be a tool created once and used many times to avoid the inefficiencies that resulted from starting the planning process "from scratch" each year. While the transition year IP will be a new document, covering FY 2011-2017, subsequent IPs will simply update the previous year's plan for the next seven year period (e.g., FY 2012-2018). The IP for each objective is a single, living document. Since the IP for FY 2011-2017 will be created at the beginning of the SEE process, it will relay both the lessons learned from programs executed under NOAA's previous strategic plan, and, looking forward, the logic used to move from activities to outcomes under the NGSP and AGM guidance.

Created by staff designated by the AAs and SO Directors, IPs will cover all major components contributing to the strategic objective managed by LOs, SOs and councils, including assets, infrastructure, products, and services. Each IP will describe existing capabilities, performance projections, and cross-NOAA interdependencies. It provides justification for how inputs yield outputs and how outputs yield outcomes. By establishing the baseline for performance management, the IP sets the groundwork for budget formulation, DOC budget and performance reviews, and other internal evaluation while simultaneously offering an assessment of gaps and potential solutions.

The IP achieves its purpose through three major devices:

» Logic models (See Appendix D);

» The integration table; and

» The objective performance targets table.

Next, the major task in the developing the IP is to analyze the data collected in the logic model and integration and objective performance targets tables through analysis at the objective level and a limited cost analysis of specific critical priorities.

All planned activities listed in the IP should be executable within fiscal guidance set by the CFO, AGM, and the current President's Budget. It is the responsibility of the LOs, SOs, and councils to closely align IPs with this fiscal guidance. Final IPs are scheduled for release at the end of December of the execution year.

Logic models help communicate connections by:

- Helping show the linkages among activities and targets
- Communicating how milestone and activity targets are expected to contribute to more ambitious, innovation-stimulating outcome-focused targets
- Showing how regional and local targets roll up to headquarters targets

Corporate Portfolio Analysis

The CPA is the process during which PPI, the NOAA CFO, and NOAA leadership examine the entire collection of IPs in light of the fiscal constraints identified in the AGM. At the NEP/NEC meeting in January 2011, Strategic Goal Leads and Enterprise Objective Leads will present a summary of each IP that answers the following questions for leadership:

» Accomplishments: what can you achieve?

» Gaps and risks: what can you not achieve?

» Priority solutions: which gaps would you close?

These presentations will be followed by PPI's analysis of the entire IP portfolio, including relevant trends, gaps, and performance expectations across NOAA. At the end of the planning process, leadership will use IPs and the holistic CPA to understand how AGM priorities will best be met, assuming constraints. A corporate decision of annual strategy will then inform budgeting, execution of these priorities, and evaluation of how they are being executed. The resulting NEP/NEC decision memo will establish the leadership's strategy and priorities, which will feed directly into the upcoming budget formulation process. For the transition year, the CPA decision memo will be finalized by January 31, 2011.

Budget Submission

Drawing upon the AGM, IPs, CPA decision memo, budget narratives are developed and submitted by each LO. The NOAA Budget Office (NBO) analyzes budget requests, assesses options for addressing needs, and makes funding recommendations to the leadership. Such actions will help justify funding requests in budget submissions to the DOC, OMB, and Congress. This justification includes performance measures and descriptions, along with the Annual Performance Plan.

Budget formulation and justification are integral to NOAA's budgeting process. The goal of budget formulation is to prepare, justify, and defend a financial plan for upcoming years that commits current and future resources in the manner most efficient to accomplish NOAA's goals and priorities consistent with NOAA's strategic plan. The Budget Formulation and Analysis Division and NBO lead the formulation process, and collect input from LOs and SOs.

NOAA's budget justification request to DOC is part of the continuous process of financial resource management and decisionmaking. Budget justification clearly documents program gaps, alternatives, and options as identified by NOAA leadership with respect to meeting strategic plan goals. The DOC Office of the Secretary is provided with a justification that is comprehensive and fully conforms to the guidance set forth by OMB. Budget justification concludes with the submission of NOAA's budget request to OMB and Congress.

The President submits a proposed budget to Congress each February. This budget is a comprehensive review of Federal revenues and spending and a start of extensive interaction with Congress. The budget resolution is a central part of the budget process in Congress. Congress considers the recommendations using the information included in the budget as it drafts and passes laws that affect spending and revenue. Through this process the government determines how much money to spend, what to spend it on, and how to raise the money it has decided to spend. The budgeting process concludes with congressional appropriation signed by the President.

Execution

Execution is the output of the SEE process. The execution steps in SEE consist of:

» Corporate Portfolio Review (CPR), when variations in the budget are reconciled;

» Execution of the AOP, when work is performed and the performance is measured; and

» Budget execution, when programs are managed within approved budget levels through the use of effective fund control and acquisition management.

Corporate Portfolio Review

Variations between the President's Budget and enacted appropriation necessitate recalibration and adjustment of commitments made within IPs to ensure there is alignment between actual funding for the execution year and planned activities in the IPs. This reconciliation, led by the NOAA CFO, takes place as soon as the appropriation is enacted. The CPR is the documentation of the recalibration and adjustment decisions to keep NOAA on its strategic course.

Annual Operating Plan

Within the AOP, LOs and SOs will describe the implementation of the first execution year of IPs using guidance from the AGM and CPR. Clarification on how executed programs will be evaluated should be built into the AOP; this may consist of performance measures, milestones, and planned and actual performance data. Whereas the IP represents a seven-year plan framed by NGSP objectives, the AOP represents a one-year plan framed by LO or SO. Though organized according to LO and SO rather than by objective, the content of the AOP should provide the basis of the near term activities in the IPs. Each LO and SO will develop a Balanced Scorecard (BSC) that supports their contribution to the DOC and NOAA BSC and associates metrics to their performance goals. LOs and SOs will use the BSC to report out quarterly to the PDUS on the progress toward the performance expectations documented in their AOPs.

Budget Execution

At the beginning of each FY, the NBO allots and disperses funds with guidance for reporting and review, managing resources, reprogramming resources, performing reapportionment, conducting a year-end closeout of the FY, and preparing NOAA's Annual Business Report. NOAA's LOs and SOs are responsible for control of funds and financial management in implementing and administering programs within approved budget levels. Elements of execution include implementation, work assignments, reporting on performance (monthly, quarterly, and/or annually), comparison of actual performance against the program plan, and development and implementation of changes required to more closely align actual performance with planned performance. Executing the annual budget requires financial managers and budget officers are in close contact with LOs, SOs, and Program Managers to ensure all funds are apportioned, allotted, committed and obligated correctly.

Evaluation

Evaluation is an integral part of SEE and occurs at each of the seven steps (see Table 5.3). The overarching purpose of evaluation in SEE is to monitor the implementation of the strategic plan, and inform whether adequate progress is being made and where adjustment of strategic investments and targets may be necessary. Evaluations in SEE will use and build on existing performance (e.g., GPRA) measures, data, tools, and processes to strengthen performance management in NOAA. These evaluations will leverage and support NOAA, DOC, OMB, statutory, and other evaluation requirements; provide constructive feedback on actual program performance to executing entities and last, but not least, inform improvements in the SEE process itself.

Table 5-3 Evaluation of SEE Products in FY 2011

PRODUCT	EVALUATION IN FY 2011
Implementation Plan (IP)	Use qualitative review and assessment to improve the content of IPs (e.g., logic model; alignment of performance measures, interdependency, risks, consistency).
Annual Guidance Memorandum (AGM)	Use past performance trends data and relevant available evaluation findings to assess NOAA progress toward its strategic goals, and identify issues and priorities.
Corporate Portfolio Analysis (CPA)	Use relevant available performance data trends, gaps, IPs and AGM to propose realistic options for implementing AGM and inform NOAA budget, and identify associated corporate risk.
NOAA Budget Submit	Use DOC budget review and relevant programmatic evaluation findings to improve base budget defensibility, and improve feasibility and readiness of budget alternatives.
Corporate Portfolio Review (CPR)	Incorporate evaluation findings as appropriate to inform NOAA responses to variance between appropriated budget and the President Budget.
Annual Operating Plans (AOP)	Use actual performance results to review execution performance, cost, and schedule; produce accountability reports complying with BSC, Performance and Accountability Report, and statutory evaluations; and assess NOAA accomplishment toward strategic goals.
Progress to Plan (P2P)	Use IPs, available performance measures, program evaluation and external assessments to monitor and evaluate NOAA's progress toward NGSP objectives over time.

Balanced Scorecard

NOAA and DOC are placing new focus on performance-based management. The evaluation of NOAA's performance toward meeting societal outcomes will be used to judge the effectiveness of the agency's processes and policies, and inform management focus on improving performance. The DOC has instituted a BSC process to achieve an alignment of DOC strategies to execution within its bureaus. NOAA is creating its own BSC showing how NGSP objectives contribute to the overall strategies of the Department. NOAA's BSC (formally known as Corporate Performance Measures) shows NGSP objectives, with performance measures and select high-priority activities that reflect the NOAA administrator's priorities during each quarter. The effect of this analysis is more focused alignment of execution to strategy, and the prioritization of NOAA's projects. Each LO will also create a BSC to feed into the NOAA-wide BSC.

Power of Measurement

Measurement motivates people to do well and illuminates promising solutions and problems.

Measurement communicates:

- Within an organization and across organizations
- Accountability to the public
- Issues and data from the public

Roles and Responsibilities

Missing a target or even failing to make progress is not a problem, but failure to understand why progress is not being made and not having a cogent strategy to deal with it is.

Accountability entails a responsibility to explain actions undertaken and is integral to the SEE process. Managers are required to clarify what is expected; examine program activities and performance measures, and compare their performance with what is expected; act on findings to improve program activities and performance measures; and communicate findings in accordance with agency and government regulations.

Strategy, execution, and evaluation are performed by multiple NOAA entities with various roles and responsibilities.

The **NEP** and **NEC** review, comment, and approve the AGM and the set of IPs, decide on a corporate portfolio to budget (pre-appropriation) and execute (post-appropriation), and discuss the set of broad issues that are strategically important for NOAA during the SEE transition.

AAs and **SO DIRECTORS** use performance information to lead, learn, and improve outcomes and enhance accountability. AAs and SO Directors also deliver IPs; report progress toward objectives; are accountable for results; strengthen internal and external problem-solving networks; and communicate performance. Strengthening problem-solving networks, both inside and outside of government, and coherently communicating performance will result in improved outcomes, transparency, and performance management practices.

LO/SO STRATEGIC PLANNERS focus on developing and executing the tasks identified within an IP. In order to implement NGSP objectives, Strategic Planners coordinate and manage the integration work with individual programs, develop strategic justifications for new and base funding requests, and report on performance. Taking the lead on base review, logic modeling, metric monitoring, and evaluation of program health are all responsibilities of a Strategic Planner. Strategic Planners specialize in planning and coordinating activities, rather than financing them. Strategic Planners must actively work with CFOs to develop strategies that can be budgeted and executed.

LO/SO CFOs lead a review-based budget process to align NOAA's strategic goals and objectives to current financial resources and future requests in development and updates to IPs and formulate defensible budget requests. Working with the Strategic Planner, the CFOs aids in developing the IP early in the planning process, and will identify improvements in the IP's program effectiveness and efficiencies. CFOs and the NBO then translate the IPs into NOAA's portion of the President's Budget Request to focus on NOAA's top priorities. CFOs will lead LO and SO managers in their development of program baseline and change summaries, and also during the DOC review process. CFOs monitor and report on performance of programs and execution of program funds.

PPI assists the NOAA Administrator in developing the AGM and corresponds with the LO/SOs during IP formulation and CPA to analyze key issues across the portfolio of IPs. PPI presents CPA findings to leadership. During the CPR, PPI supports the CFO to adjust and align IP commitments, and then evaluates the execution of programs within the Progress to Plan (P2P).

The **NBO**, with guidance from the NOAA CFO, manages the fiscal portions of the SEE process. This office works in conjunction with LOs and SOs during the IP development process. It translates the corporate portfolio of IPs into NOAA's budget submission to DOC, OMB, and Congress, and realigns IP strategies with actual appropriation during the CPR.

LOs and **SOs** fulfill the coordination functions for meeting NOAA's strategic goals and objectives. This includes developing IPs and AOPs, as well as the execution of their respective programs. LO and SO staff assist Strategic Planners and CFOs in building logic models and performance projections, and in the coordination of goal and enterprise interdependencies.

COUNCILS serve as a venue for coordinating where shared accountability exists, particularly for the Enterprise Objectives. They create enterprise IPs, report on NOAA's performance towards meeting the Enterprise Objective outcomes in the IP, and evaluate an integrated approach to a corporate strategic objective where multiple LOs/SOs are involved. A council has the discretion to designate one or more member organizations as the responsible party for the coordination of materials, analysis, and composition of IPs. Member organizations are individually responsible for executing their portion of IPs and AOPs.

REGIONAL COLLABORATION TEAMS identify regional trends, needs, and capabilities; highlight regional priorities; and facilitate integrated solutions to improve NOAA's responsiveness to the needs of regional stakeholders. Trends and recommendations are conveyed via a memorandum to PPI during AGM development. Through the IP development process, the Regional Collaboration Teams facilitate inter-LO solutions for integrated regional-scale execution of NOAA's mission. They also assist in the evaluation process by providing feedback to PPI and the LOs/SOs on the effectiveness and responsiveness of NOAA's activities to regional needs.

APPENDIX A ACRONYMS

AA	Line Office Assistant Administrator
AGM	Annual Guidance Memorandum
AGO	Acquisition and Grants Office
AMAC	Acquisition Management Advisory Committee
AOP	Annual Operating Plan
BOM	Business Operations Manual
BSC	Balanced Scorecard
CAO	Chief Administrative Officer
CE	Categorical Exclusion
CEQ	White House Council on Environmental Quality
CFO	Chief Financial Officer
CFR	Code of Federal Regulations
CI	Cooperative Institute
CIO	Chief Information Officer
CNES	French Space Agency
CO	Corporate Office or Contracting Officer
COR	Contracting Officer Representative
CPA	Corporate Portfolio Analysis
CPIC	Capital Planning and Investment Control
CPR	Corporate Portfolio Review
CSS	Commercial Space Services
DAO	U.S. Department of Commerce Administrative Order
DOC	U.S. Department of Commerce
DOD	U.S. Department of Defense
DUSO	Deputy Under Secretary for Operations
EA	Enterprise Architecture or Environmental Assessment
EDMC	Environmental Data Management Committee
EDP	Executive Decision Process
EEO	Equal Employment Opportunity
EIS	Environmental Impact Statement
EO	Executive Order
EOG	Executive Oversight Group
ESSA	Environmental Science Services Administration
EUMETSAT	European Organization for the Exploitation of Meteorological Satellites
FAC	Federal Advisory Committee
FACA	Federal Advisory Committee Act
FIMB	Facilities Investment Management Board
FMFIA	Federal Managers' Financial Integrity Act
FMP	Facility Modernization Plan
FOIA	Freedom of Information Act
FONSI	Finding of No Significant Impact
FY	Fiscal Year
GAO	Government Accountability Office
GC	General Counsel
GEOSS	Global Earth Observation System of Systems
GMD	Grants Management Division
GOES	Geostationary Observational Environmental Satellites
GPRA	Government Performance and Results Act of 1993
GSA	U.S. General Services Administration
HCC	Human Capital Council
HCO	Head of Contract Office
HR	Human Resources
IAC	International Affairs Council

IPO	Integrated Program Office
IRB	DOC Investment Review Board
IP	Implementation Plan
IT	Information Technology
JPSS	Joint Polar Satellite System
KDP	Key Decision Point
LO	Line Office
NAO	NOAA Administrative Order
NASA	National Aeronautics and Space Administration
NBO	NOAA Budget Office
NEC	NOAA Executive Council
NEP	NOAA Executive Panel
NEPA	National Environmental Policy Act
NESDIS	National Environmental Satellite, Data, and Information Service
NGSP	Next-Generation Strategic Plan
NITRB	NOAA Information Technology Review Board
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOCC	NOAA Ocean and Coastal Council
NOS	National Ocean Service
NOSC	NOAA Observing Systems Council
NPOESS	National Polar-orbiting Operational Environmental Satellite System
NRC	National Research Council
NWS	National Weather Service
OAR	Office of Oceanic and Atmospheric Research
OCAO	Office of the Chief Administrative Officer
OCEA	Office of Communications and External Affairs
OCIO	Office of the Chief Information Officer and High Performance Computing and Communications
OED	Office of Education
OGC	Office of General Counsel
OIA	Office of International Affairs
OIG	Office of Inspector General
OLIA	Office of Legislative and Intergovernmental Affairs
OMAO	Office of Marine and Aviation Operations
OMB	Office of Management and Budget
PCO	Program Coordination Office
PDUS	Principal Deputy Under Secretary of Oceans and Atmosphere
POES	Polar Operational Environmental Satellites
PPBES	Planning, Programming, Budgeting, and Execution System
PPA	Project Program Activity
PPI	Office of Program Planning and Integration
P2P	Progress to Plan
R&D	Research and Development
ROD	Record of Decision
RPFLO	Real Property, Facilities, and Logistics Office
RPM	Responsible Program Manager
SAB	Science Advisory Board
SECO	Safety and Environmental Compliance Office
SEE	Strategic Execution and Evaluation
SMART	Specific, Measureable, Attainable, Realistic, and Time-bound
SO	Staff Office
SSP	Strategic Satellite Plan
USC&GS	U.S. Coast and Geodetic Survey
WFMO	Workforce Management Office

APPENDIX B GLOSSARY

ACCOUNTABILITY A responsibility to explain actions undertaken. Requires managers to: 1) clarify what is expected, 2) examine program activities and performance measures and compare their performance with what is expected, 3) act on findings to improve program activities and performance measures, and 4) communicate findings in accordance with agency and government regulations.

ACTIVITY An action that provides further separation of NOAA's program components into functions delivering products and services to accomplish an objective. See "Capability."

ANNUAL GUIDANCE MEMORANDUM (AGM) Strategic guidance from the Under Secretary of Commerce for Oceans and Atmosphere, or NOAA Administrator, to goal team leads for use in the development of Strategic Portfolio Analysis.

ANNUAL OPERATING PLAN (AOP) A plan required by the Deputy Under Secretary (DUS) and produced by the NOAA Line and Staff Offices outlining a schedule of events, responsibilities, and milestones for the current fiscal year. The AOP outlines planned actions to be taken throughout the year to accomplish the approved and appropriated NOAA Program. The status of the AOP schedule is reviewed quarterly by the DUS.

ANNUAL PERFORMANCE PLAN A plan required by the Office of Management and Budget (OMB) providing the direct linkage between long-term strategic goals outlined in agencies' strategic plans and what managers and employees are committed to accomplishing in a given fiscal year given the associated budget. This plan is presented in the first section of the agency's budget submission to DOC, OMB, and Congress.

APPLICATION The use of research results in furthering NOAA's mission.

APPROPRIATION A provision of law providing budget authority that enables an agency to incur obligations and to make payments out of the U.S. Treasury for specified purposes. Appropriations are the most common means of providing budget authority. Annual appropriations are provided in appropriations acts; most permanent appropriations are enacted in substantive law.

BASELINE The part of a performance measure that establishes the initial level of measurement (value and date) against which targeted progress and success are compared. A baseline includes both a starting date and starting level or value.

BUDGETING The process for determining the resources required by NOAA to meet its program commitments, justifying these requirements to various review levels, determining the impacts of revised resource levels, and executing the program at the approved funding level.

CAPABILITY The ability to satisfy a given mission requirement (e.g., restore coastal habitat). A capability is a combination of activities, processes, skills, and competencies.

CAPACITY The amount of an asset or resources available (input capacity) or the quantity of something produced (output capacity). Input capacities may include funding, personnel (e.g., NOAA Corps, FTEs, and contractors), laboratories and associated personnel, facilities, vessel operating days, flight hours, satellite usage, etc. Output capacities may include grants awarded, data gathered, products produced, customers served, research projects, and education and outreach efforts.

CAPITAL ASSET Defined by OMB Circular A-11 as "land, structures, equipment, intellectual property (e.g., software), and information technology (including IT service contracts) that are used by the Federal Government and have a useful life of two or more years."

CHIEF FINANCIAL OFFICER (CFO) Serves as the principal financial manager for NOAA. The CFO's Office has the responsibility under the CFO Act to provide the leadership necessary for NOAA to obtain a yearly-unqualified opinion in the audit of its consolidated financial statements. The areas under the direction of the CFO are the Budget and Finance Offices.

CLIMATE The weather of a locality averaged over a long-term (often 30 years) period, including its variability.

CLIMATE CHANGE The change in the mean state of the weather over periods of time from decades to centuries to millions of years.

CLIMATE VARIABILITY Natural changes in climate that fall within the normal range of extremes for a particular region, as measured by temperature, precipitation, and frequency of events. Drivers include the El Niño Southern Oscillation and other phenomena.

COMMITTEE An established group that reports to a NOAA Council.

CONSTITUENT Any entity to which NOAA provides a product or service or is impacted by NOAA's mission. This includes citizens and businesses as well as other government agencies.

COUNCIL An established group that provides leadership and coordination across the agency for select functions.

CROSS-CUTTING PRIORITY A thematic functional underpinning of the councils.

CUSTOMER A stakeholder that uses NOAA's products and services.

DERIVATIVE STRATEGIC PLANS Strategic plans written by NOAA organizations that serve as a bridge between NOAA's strategic plan and the operational or functional components of NOAA.

ECOSYTEM A geographically-specified system of organisms (including humans), the environment, and the processes that control its dynamics.

EFFECTIVENESS An assessment of the quantitative level of achievement of program goals and the intended results.

EFFICIENCY The ratio of the effective or useful output to the total input.

ENTERPRISE A purposeful undertaking that generally requires the coordination of different organizations, types of expertise, and capital. The cross-cutting science, administrative, engagement, infrastructure, and management functions that support NOAA's distinctive capabilities.

ENTERPRISE OBJECTIVE A cross-cutting, near-term, concrete, measured step required to meet a desired state for NOAA's Enterprise functions.

ENVIRONMENT The biological, chemical, physical, and social conditions that surround organisms.

EVALUATION The systematic assessment of how well a program is working toward achieving program objectives. There are four main types of evaluation, including outcome evaluation (what the program accomplished), impact evaluation (net effect of the program), process evaluation (extent the program is operating as intended), and cost-benefit/cost-effectiveness evaluation.

EXECUTION Consists of two elements: Execution of the Annual Operating Plan (where the work is performed and performance is measured), and Budget Execution (where programs are discharged within approved budget levels through the use of effective fund control and financial management).

EXECUTIVE DECISION PROCESS (EDP) Uses a tiered structure wherein significant NOAA issues are identified, discussed, decided, or framed for decision at the next higher level. The structure comprises the NOAA Executive Council (NEC), NOAA Executive Panel (NEP), Councils, Boards, and Committees.

EXECUTIVE ORDER (EO) Presidential direction to the executive branch of Federal Government (e.g., Executive Order 12906, "Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure").

EXHIBIT 300 The Capital Asset Plan and Business Case Summary designed to coordinate OMB's collection of agency information for its reports to the Congress required by the Federal Acquisition Streamlining Act of 1994 and the Clinger- Cohen Act of 1996. This exhibit provides the business case for investments and documents that includes mission statements, long-term goals and objectives, and annual performance plans developed pursuant to the GPRA. For Information Technology (IT), Exhibit 300s are designed to be used as one-stop documents for many IT management issues, such as business cases for investments, IT security reporting, Clinger Cohen Act implementation, E-Gov Act implementation, Government Paperwork Elimination Act implementation, agency's modernization efforts, and overall project (investment) management.

FISCAL YEAR (FY) A 12-month period used for calculating annual ("yearly") financial reports in an organization. The U.S. Government's fiscal year begins on October 1 of the previous calendar year and ends on September 30 of the year with which it is numbered.

GOAL A specific component of the NOAA's strategic vision for the future. Translated from the vision, a high-level result that NOAA will seek to achieve over a multi-decadal time horizon.

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA) OF 1993 A mandate (P.L. 103-62) that requires agencies to submit initial strategic plans to DOC and then to OMB, with updates at least every three years, and annual performance plans covering performance measures for each major program activity. On the basis of these plans, an agency's annual performance plan is included in the President's budget for that agency. GPRA is unique in its requirement that agency "results" be integrated into the budgetary decisionmaking process. The Annual Performance Plan documents the achievements of GPRA.

HOMEPORT The duty station where is a ship is moored whenever it is not operationally deployed or at a shipyard for maintenance. The homeport facility also houses engineering, logistic, and administrative support personnel and is often co-located with NOAA program offices that regularly use the ship.

INDICATOR The part of a performance measure that defines the attribute or characteristic to be measured.

INFORMATION SERVICES Production and delivery of interpreted and/or synthesized data, decision tools, and scientific knowledge and understanding to decisionmakers and policymakers, the scientific community, and the public.

INPUT The financial and human resources, intellectual processes and infrastructure the organization uses to deliver a capability.

INTERAGENCY OR INTERNATIONAL AGREEMENT A formal agreement between one or more agencies/countries (e.g., the Earth Observations Summit agreement).

KEY DECISION POINT (KDP) A significant milestone in project implementation documenting an agency investment decision. The KDPs are as follows (for systems acquisitions, Department Administrative Orders may provide more specific requirements or definitions):

» ***KEY DECISION POINT-1 (KDP-1)*** Needs identification and definition: identification and definition of shortfalls, their relative priority within NOAA, and the general magnitude of life cycle costs that may be needed to address them.

» ***KEY DECISION POINT-2 (KDP-2)*** Solution alternatives identification: selection of one or more alternatives to be advanced for further analysis (including research and pilot testing).

» ***KEY DECISION POINT-3 (KDP-3)*** Solution selection: selection of an approach, including project scope, review procedures, and commitment as appropriate to full-scale research and development.

» ***KEY DECISION POINT-4 (KDP-4)*** Acquisition/implementation approval: commitment to full acquisition and/or operational implementation with explicit approval of baseline objectives and project scope to include life cycle cost, schedule, and performance goals.

LEGISLATION Includes a bill, act, or amendment enacted into law by the U.S. Congress (e.g., Harmful Algal Bloom and Hypoxia Research and Control Act of 1998 [S. 3014. ES]; Consolidated Appropriations Act of 2005 [H.R. 4818]). Legislation is not conference language, proposed bills or acts, or other discussions of Congress.

LIFE CYCLE COST Defined by OMB Circular A-11 as "(t)he overall estimated cost, both government and contractor, for a particular project alternative over the time period corresponding to the life of the project, including direct and indirect initial costs plus any periodic or continuing costs of operation and maintenance." Life-cycle costs includes the total cost to the government over the full project life, including (as applicable) the cost of research and development, investment in mission and support equipment (hardware and software), initial inventories, training, data, facilities, operations, maintenance, support, and retirement or disposal.

MAJOR PROJECT As defined in NAO 216-108, any project with life-cycle costs greater than the NOAA-established threshold ($250 million FY 2005 constant dollars), unless otherwise directed by DOC or higher authority. The life-cycle cost determination should be computed over the service life for physical assets and over 10 years for other projects. The DUS may also designate any project as a major project based on any of the criteria found in OMB Circular A-11, regardless of its life-cycle costs. These criteria include:

» Importance to the agency's mission

» High development, operating, or maintenance costs

» High risk

» High return and/or significant role in the administration of the agency's programs, finances, property, or other resources

MISSION A summary of the agency's fundamental mandates and responsibilities. A succinct and distinctive statement of what NOAA does. A mission statement encapsulating the set of statutory requirements that drive NOAA's mission functions, assumed to be stable over the planning period.

MISSION REQUIREMENT A validated NOAA responsibility resulting from one or more requirements drivers. Mission requirements should be understandable, outcome-oriented, concise, and actionable, and should identify the need but not prescribe specific solutions.

NOAA ADMINISTRATIVE ORDER (NAO) Prescribes administrative management policies, responsibilities, and requirements that apply to two or more NOAA Line and/or Staff Offices.

NOAA PROGRAM An integrated, fiscally balanced, five-year plan reflecting all of NOAA's appropriated funds, not intended to be viewed outside of NOAA.

NON-MAJOR PROJECT Any project that does not meet the definition of a major project.

OBJECTIVE For each long-term goal, a corresponding near-term, concrete, measured step toward that goal. An outcome that further describes the goal statement by detailing the societal and environmental benefits that NOAA will seek to achieve in the short-term. Evidences of Progress within each objective form the basis of outcome-oriented performance measures.

OFFICE OF MANAGEMENT AND BUDGET (OMB) The office that assists the President in overseeing the preparation of the President's Budget and supervises its administration in Executive branch agencies. In helping to formulate the President's spending plans, OMB evaluates the effectiveness of agency programs, policies, and procedures, assesses competing funding demands among agencies, and sets funding priorities. OMB ensures that agency reports, rules, testimony, and proposed legislation are consistent with the President's Budget and with Administration policies. In addition, OMB oversees and coordinates the Administration's procurement, financial management, information, and regulatory policies. In each of these areas, OMB's role is to help improve administrative management, to develop better performance measures and coordinating mechanisms, and to reduce any unnecessary burdens on the public.

OFFICE OF MANAGEMENT AND BUDGET (OMB) CIRCULAR NO. A–11 Provides guidance on preparing the budget submission for a given fiscal year, and includes instructions on budget execution.

OPERATIONS Sustained, systematic, reliable, and robust mission activities with an institutional commitment to deliver appropriate cost-effective products and services.

OUTCOME An end result, expected and unexpected, of the customer's use or application of the organization's outputs. Outcomes may be long-term, mid-term, or short-term in nature.

OUTPUT The products or services resulting from a capability.

PARTNER A non-NOAA stakeholder that assists NOAA in the conduct of its mission. NOAA collaborates with a wide range of partners. They can be divided roughly into the three types:

» ***STATUTORY*** A formal relationship codified by MOUs, or other formal interorganizational agreements to collaborate in the conduct of mutual mission goals and objectives. Examples are Coastal America and Cooperative Institutes.

» ***OTHER FORMAL*** A standing statutory relationship with other Federal or state organizations; partner formally authorized to assist NOAA in achieving its mission. Examples are Sea Grant Programs, Coastal Zone Managers, National Estuarine Research Reserves, and State Fisheries Managers.

» ***INFORMAL*** A working relationship with other organizations that assist NOAA in the conduct of its mission, not under the terms of formal interorganizational agreements. An example is the Smithsonian Exhibit for NOAA's 200th Anniversary Celebration.

PERFORMANCE AND ACCOUNTABILITY REPORT A report required by OMB and produced by DOC documenting achievements toward the accomplishment of the President's Management Agenda, status of the Department's annual financial audit, and performance against the Government Performance and Results Act (GPRA) goals.

PERFORMANCE MANAGEMENT The systematic process of monitoring the results of activities, collecting and analyzing performance information to track progress toward planning results, using performance information to inform program decisionmaking and resource allocation, and communicating results achieved, or not attained, to advance organizational learning and tell the agency's story.

PERFORMANCE MEASURE A structured statement that describes the means by which actual outcomes and outputs are measured against planned outcomes and outputs. Performance measures consist of four parts:

» ***INDICATOR*** The part of a performance measure that defines the attribute or characteristic to be measured.

» ***UNIT OF MEASURE*** The part of a performance measure that describes what is to be measured.

» ***BASELINE*** The part of a performance measure that establishes the initial level of measurement (value and date) against which targeted progress and success are compared. A baseline includes both a starting date and a starting level/value.

» ***TARGET*** The part of a performance measure that establishes the desired level to be reached in a defined time period, usually stated as an improvement over the baseline.

PERFORMANCE MEASUREMENT The ongoing monitoring and reporting of program accomplishments, particularly progress toward pre-established goals by NOAA management.

PLANNING The formal process to determine both internal and external requirements, including program performance.

PRESIDENT'S MANAGEMENT AGENDA An aggressive strategy for improving the management of the Federal Government. It focuses on five areas of management weakness across the government where improvements and the most progress can be made. The five areas are:

» Strategic management of human capital

» Competitive sourcing

» Improved financial performance

» Expanded electronic performance

» Budget and performance integration

PROGRAM ASSESSMENT OR EVALUATION Individual systematic studies conducted periodically or on an ad hoc basis to assess how well a program is working. The assessments are often conducted by experts external to the program,

either inside or outside the agency, as well as by Program Managers. A program evaluation typically examines achievement of program objectives in the context of other aspects of program performance or in the context in which it occurs.

PROGRAM COMPONENT The further separation of NOAA's programs into sub-elements.

PROJECT Any undertaking of a temporary nature (e.g., research, assessment, prediction, acquisition, or stewardship efforts) designed to create a service, product, system, and/or system upgrade in support of a validated NOAA mission requirement. A NOAA project is intended to address a shortfall within defined budget and schedule constraints and terminates when the service, product, or system achieves full operational capability, when the capability gap is resolved or, in coordination with other programs, when directed by the project manager or higher authority.

PROJECT MANAGEMENT The application of knowledge, skills, and techniques to project activities in order to meet or exceed stakeholder/customer needs and expectations from a project. All projects have a designated project manager. The Project Manager is responsible for translating mission requirements into a project to ensure a satisfactory solution is delivered. The Project Manager establishes and maintains a process to manage change throughout the project's life cycle, and is responsible for preparing documentation to support the continuous and systematic review of progress as it relates to key decision points (KDPs) and meeting mission requirements.

PROJECT MANAGER An individual formally designated to manage a NOAA project.

REGULATIONS Published in the Federal Register by the Executive branch of the Federal Government and constitute a set of direction to all agencies of the Federal Government (e.g., 50 CFR Part 600, Magnuson-Stevens Act Provisions; National Standard Guidelines).

REQUIREMENTS DRIVER A NOAA responsibility that is specified in legislation, regulation, Executive Order, policy decision, interagency or international agreement, or other official action that establishes a NOAA responsibility.

REQUIREMENTS MANAGEMENT The framework that NOAA utilizes to meet the mission goals and outcomes of program performance measures and deliverables.

RESILIENCE The ability of a system to absorb impacts without significant change in condition or functioning.

RESULT The expected or unexpected outcome of NOAA's products and services.

SCIENCE ADVISORY BOARD (SAB) The only Federal Advisory Committee with responsibility to advise the NOAA Administrator on long- and short-range strategies for research, education, and the application of science to resource management, environmental assessment, and prediction.

SENIOR MANAGEMENT TEAM A policy-level group consisting of at least one senior person from each Line Office involved in a Matrix Program that resolves potential conflicts. The Senior Management Team provides vision for the programs, capitalizes on program strengths, and diminishes weaknesses. The Team also ensures that balance is maintained within the whole of NOAA and that NOAA remains aligned with its Strategic Plan.

SHORTFALL The difference between current capabilities and the additional capability needed to meet a mission requirement.

STAKEHOLDER An individual or organization affected by NOAA's ability to achieve its mission.

STRATEGY A high-level explanation of what the agency intends to do and why it intends to do it. A mission statement (with a corresponding set of functions) relating to a vision statement (with a corresponding set of long-term strategic goals) that succinctly conveys NOAA's fundamental purpose, strategic direction, and value to society.

STRATEGIC MANAGEMENT A dynamic and ongoing process for corporate decisionmaking. Strategic management integrates planning, programming, budgeting, and execution and uses a shared system of principals, processes, and support structures.

STRATEGIC PLAN A planning document required by OMB that identifies how the mission will be accomplished through a vision statement, goals, strategies, and high-level outcomes for the agency. The strategic plan is reviewed by NOAA annually and covers a period of not less than five years forward from the fiscal year in which it is generated.

STRATEGIC PLANNING The process by which the future direction of NOAA is embodied in its goals, objectives, strategies, and performance measures.

STRATEGIC PORTFOLIO ANALYSIS (SPA) An analysis that provides NOAA leadership with a review of goal issues and priorities over the planning period.

SUB-GOAL An elaboration of the goal, developing with greater specificity as to how an agency will focus its mission.

THEMATIC WORKING GROUP A group established on an as-needed basis to provide expertise in planning, programming, and issue resolution. These working groups help to ensure the whole picture is understood and the correct data is collected in order to assist the appropriate Senior Management Team to make an educated well-informed decision.

TRANSITION PLAN A document identifying the comprehensive activities necessary to transfer a research result to operations. The Transition Plan identifies stakeholders, defines criteria for when a project will be transferred, and provides funding profiles for operational implementation, information service delivery, and/or follow-up research.

TRANSITION PROJECT The collective set of activities necessary to transfer a research result, or collection of research results, to operational status or to an information service.

TRANSITION TEAM A group of individuals assigned the responsibility to execute a Transition Project.

U.S. DEPARTMENT OF COMMERCE (DOC) The parent department of NOAA. NOAA and the Department's other component bureaus create the conditions for economic growth and opportunity by promoting innovation, entrepreneurship, competitiveness, and stewardship. The DOC's mission is linked directly to encouraging the economic growth that benefits all American industries, workers, and consumers; enhancing technological leadership and environmental stewardship; and advocating market growth strategies.

VISION A description of an envisioned future state of society and the environment that, implicitly, cannot be achieved without NOAA. A description of long-term (multi-decadal) success in terms of the value NOAA will generate for society. Answers why NOAA exists.

WEATHER The present condition of the atmosphere and its short-term variation at a particular location.

APPENDIX C
NOAA'S FUNCTIONAL MODEL

A Primer on NOAA's Functional model

Functions are the things that an agency does, and will continue to do, in order to fulfill its mission. NOAA's functions can be considered a disassembly of the components of the NOAA mission. Functions account for NOAA's productive activities and its outputs, rather than the outcomes that the agency ought to accomplish. Functions are distinct from the people or offices that perform them; a single office, or even a single person, could deploy many functions in a single day.

As depicted in Figure C-1, three general types of functions exist. Each is supported by the functions behind it, and is then further detailed by four types of outputs. Functions are links within a value-chain; they add value to inputs to create better outputs. These functions have been derived from statutory mission drivers and thus provide a comprehensive account of what NOAA does. They were developed and refined by a high-level, cross-agency working group and then approved by the NOAA Executive Council as an accurate account of the work of the agency. The functions provide a perspective of the work of the agency that transcends disciplinary boundaries, organizational boundaries, people, places, and scale of activity. How NOAA performs these functions over time may change, but - barring a significant change in NOAA's mission - the functions themselves will not.

Accounting for these functions and their outputs allows NOAA to address where and how the functions should be done and understand the consequences of adding, removing, or integrating functions to the rest of the value chain. The following sections provide a description of each NOAA function and its corresponding outputs.

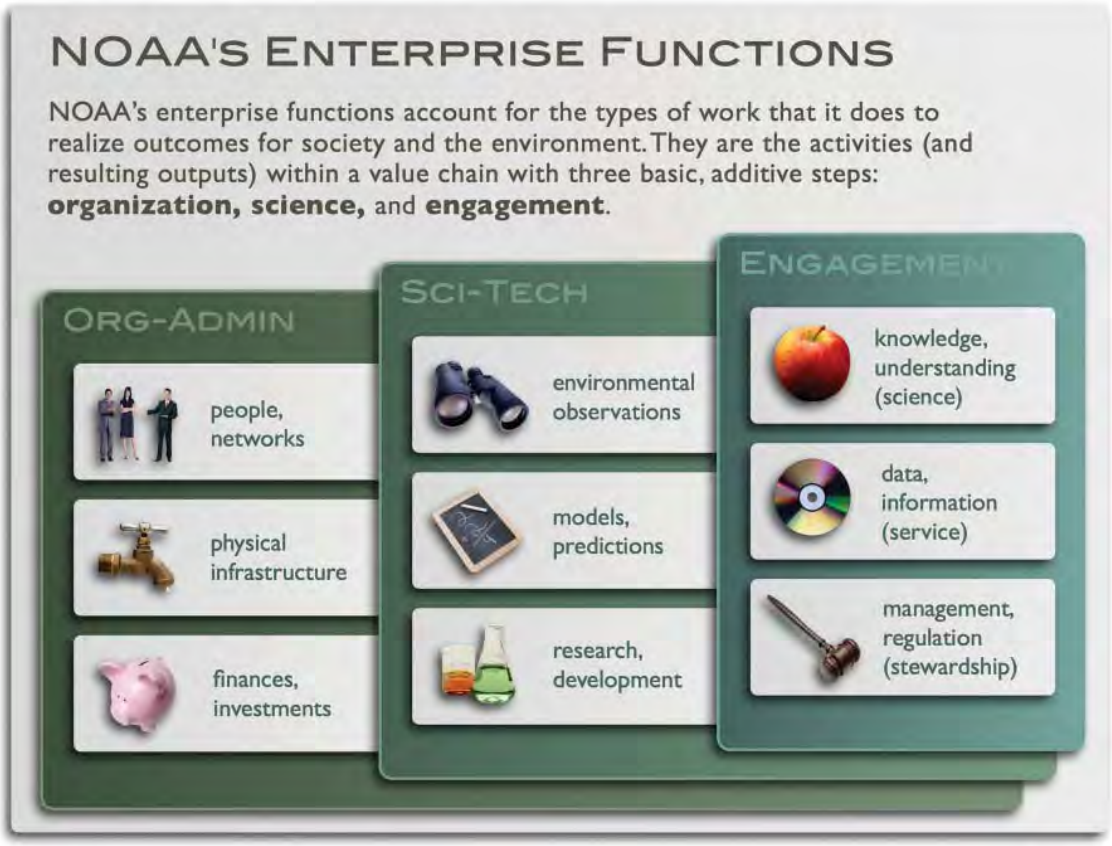


Figure C-1
NOAA's Enterprise Functions

Organization and Administration

Management is an essential function of any organization. NOAA's managers, whether at headquarters or in the field, have common responsibilities to determine and implement policy, manage the investment of taxpayer dollars, deploy physical infrastructure, and retain a qualified workforce. NOAA's managerial efforts avail the rest of the agency of these four types of inputs. Good management fosters an organizational environment in which core competencies can be realized and final products can reach their fullest potential.

Policy and Administration

The successful conduct of all of NOAA's functions requires skilled leadership to coordinate activities and organize people across the agency, as well as with its partners. Policy and administration can be thought of as the compass that aligns the agency to a well-defined mission and guides the agency toward the outcomes most desired by stakeholders. The quality of policy and administration is a function of the fidelity of NOAA priorities with those of stakeholders, as well as the efficacy and efficiency with which all agency capabilities are deployed.

People and Networks

NOAA's diverse functions require an equally diverse set of skills and constantly evolving abilities in the workforce, both Federal and contract staff. Human capital can be thought of as the hearts and minds of the organization—NOAA's passions, values, wisdom, and relationships. The quality of human capital can be understood as the goodness-of-fit of expertise to duty, and individual performance with respect to tasks, as well as professional satisfaction with the work that individuals perform.

Physical Infrastructure

NOAA creative and engagement functions are extremely capital intensive, demanding satellite systems, ships, buoys, aircraft, research facilities, and high-performance computing. Physical capital can be thought of as the utilities of the agency: infrastructure that enables all other functions to be conducted. The quality of physical capital can be measured by how well it meets design requirements, and if it is acquired and maintained on time and within budget.

Finances and Investments

To achieve its mission effectively and efficiently, NOAA finances are guided by strategic goals and performance evaluations with respect to those goals. Financial capital can be thought of as the monetary investments that NOAA puts into its current and future capabilities to predict the weather, chart coastal waters, etc. The quality of financial capital is determined by the degree to which it is distributed according to strategy and then spent, at a tactical level, per the spending plan.

Science and Technology

At the heart of NOAA operations is the creative work of scientists and engineers. Compared with other public or private institutions, NOAA has an advantage in producing the environmental data, information, and knowledge that is essential to national commerce. NOAA's core competency is in creating four categories of intellectual capital that informs partners and customers, as well as the agency's own management and regulation responsibilities. Thus, all four are throughputs with respect to the agency's final products; they are the necessary ingredients for NOAA's functions to serve.

Environmental Observations

NOAA's science, service, and stewardship functions are dependent upon environmental observation systems composed of satellites, aircraft, ships, buoys, and radars—all of which yield a torrent of data on the state of the oceans and the atmosphere. Environmental observations can be thought of as the raw material from which all of NOAA's information and knowledge are created. The quality of environmental observations is a function of how well they have been calibrated and validated.

Models and Predictions

To predict environmental changes, NOAA requires well-designed, often interconnected, models of the environment that are created by Earth system scientists, powered by high-performance computers, and run with extensive observations data. Models and predictions can be thought of as the theories and calculations behind forecasts of future weather and ecosystems conditions, and behind projections of possible climate scenarios. The quality of models and predictions is the accuracy of simulated conditions with respect to actual conditions.

Research and Development

An evolving understanding of the ocean, atmosphere, and human interactions underlies improved NOAA operations and informed public decisionmaking. Research and development can be thought of as the knowledge-infrastructure that supports current and future understanding of environmental systems. The quality of research and development can be understood as the extent of publication and citation in peer-reviewed journals, as well as the transfer of novel practices into the operational contexts of NOAA or its partners.

Data Management

Monitoring Earth systems and predicting changes requires the standardization of data and integration of information systems for data archive and access. Data management can be thought of as the organization, quality control, and stewardship of all the environmental information that NOAA requires to run models, conduct research, and manage fisheries, as well as deliver to partners and customers for their own applications. The quality of data management can be determined by consistency of data format, completeness of data sets, and availability of databases.

Engagement

NOAA serves the Nation by providing "science, service, and stewardship" through a variety of channels: some digital, others face-to-face; some scientific and technical, others legal and political. From a strategic investment perspective, this translates to the provision of four general types of output, which are the final outputs of the agency as a whole. They are the four types of public goods through which NOAA engages its stakeholders, and thus represent the culmination of all agency work. NOAA's value to stakeholders is a function of the quality of these outputs.

Knowledge and Understanding

Beyond data and information, NOAA provides scientific insights into the reasons why environmental processes occur and intangible technical "know-how." Knowledge and understanding can be thought of as anything you might learn from a NOAA professional, either in direct conversation, at a lecture, or in a publication. The quality of knowledge and understanding is the ability to explain empirical evidence, credibility of the source, and applicability to decisions.

Data and Information

NOAA provides the data, and the analyses and assessments of those data, that inform the Nation about past, current, and future conditions of the environment. Data and information can be thought of as anything NOAA's partners or customers might access with a computer or mobile phone. The quality of data and information can be understood as spatial and temporal precision, timeliness, and reliability, as well as user-relevance and accessibility.

Management and Regulation

NOAA has direct responsibilities to manage national trust resources through activities ranging from law enforcement to protection and restoration. Management and regulation can be thought of as the "boots on the ground" of NOAA's stewardship responsibilities—such as the authority to enforce fishing quotas or the expertise to protect species and restore coastal habitats. The quality of management and regulation is a function of the sustainability of resources and the balance of competing uses for ecosystem services.

Grants and Transfers

NOAA often conducts its mission indirectly by supporting and directing external research and development, and state management of coastal zones. Grants and transfers can be thought of as the money and other resources that NOAA allocates to partners, whose activities result in NOAA's desired outcomes. The quality of grants and transfers is the fidelity to which partner activities and outputs align with NOAA's mission and abide by contractual agreements.

The NOAA Functional Model

NOAA's Functional Model specifies how the agency produces and provides particular products (see Figure C-2). The genesis of the Functional Model concept was in the FY2008 Fiscal and Programming Guidance, which stated that PPI "will develop a high-level model that describes NOAA's enduring functions, how those functions interrelate, and how they could be affected by changing external conditions. This model will enable more detailed function/structure analyses and assessments of alternative CONOPS." With a Functional Model, agency management at any level can identify best practices, apply lessons learned, find common ground for collaboration, and ultimately improve the efficacy and efficiency with which NOAA conducts its mission.

The Functional Model is also the foundational "business layer" of a NOAA-wide enterprise architecture. Enterprise architecture is a tool for managers of an enterprise such as NOAA to integrate all of the information necessary to sustain the operations of the enterprise, from the requirements, capabilities, and performance measures of the agency as a whole to those of its most particular elements. The structure of enterprise architecture is all of the interrelationships between the information types, which will necessarily parallel the structure of the functions of the enterprise. As the business layer for the NOAA enterprise architecture, the Functional Model provides a common way for NOAA managers to describe the purpose of their major investments.

As depicted in Figure C-2, the Functional Model shows how the outputs of management functions support creative and engagement functions, and how the outputs of these functions support society's functions to enjoy better decisions and a better quality environment. It also shows how NOAA stakeholders, having enjoyed NOAA's outputs, will provide feedback on the outputs provided, and ultimately provide the stock of labor, infrastructure, and tax dollars that the agency requires to continue functioning.

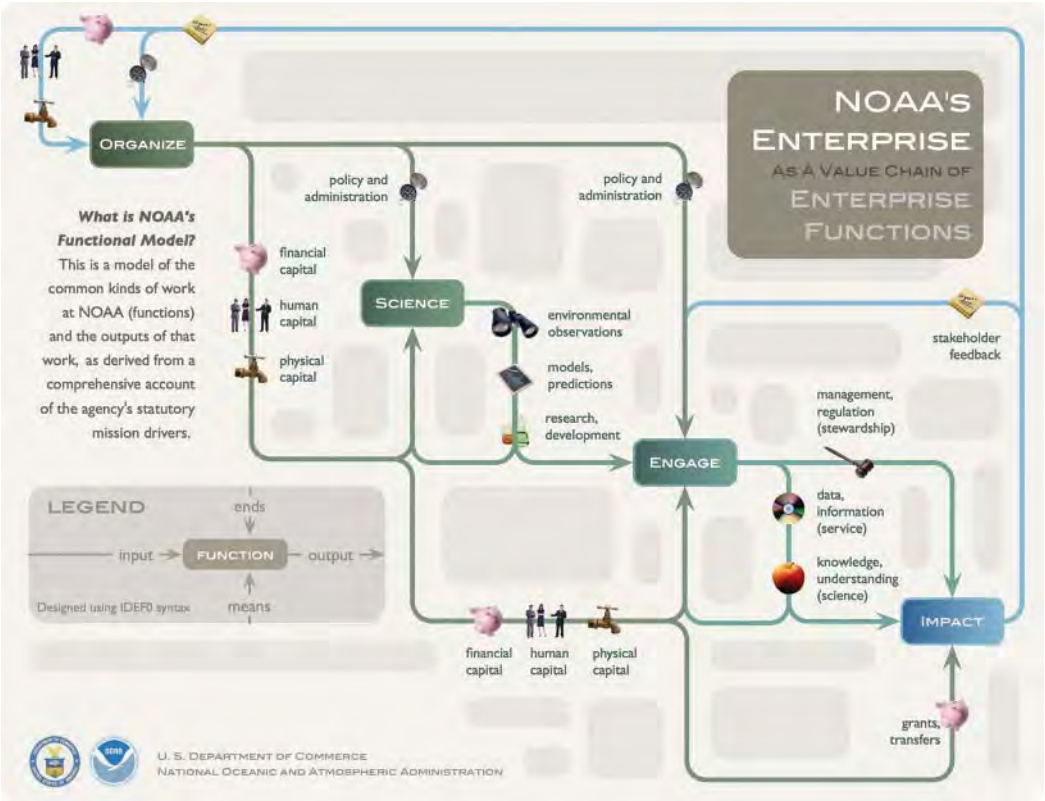


Figure C-2
The NOAA Functional Model

The Value of a Functional Perspective

For NOAA's Next-Generation Strategic Plan, the Functional Model will account for the work of the organization - its inputs and outputs - in order to match evolving capabilities with evolving needs, irrespective of preexisting organizational structure. An effective strategic plan for an organization as complex as NOAA must be founded upon a thorough understanding of all of its functions, how they interrelate, how they add value, and how they perform in meeting their requirements. Strategy must distinguish between ends and means, such that functional approaches to achieving goals can be modified based upon performance assessments.

Functions do not describe NOAA's budget and authority-based organization, which follows a traditional Line and Staff Office model (and which has culminated from the separate evolution of distinct historical bureaus). This traditional model answers the question, "who has control over what?" Neither do the functions account for NOAA's vision-based organization, which follows a Goal and Program model. This model answers the question, "why do we do what we do?"

In contrast to both of these existing models, the Functional Model answers the more basic question, "what kinds of things do we do?" It defines agency functions, categorizes those functions, and codifies the discrete value-added relationships between the functions. Understanding, explaining, and discussing "the things we do" in common terms is critical for a successful and accountable organization. The public and its elected representatives are primarily concerned with "what kinds of things we do," secondarily with "why we do what we do," and finally with "who has control over what." The same is true, it might be added, for any specialist within NOAA who requires an understanding of the other areas NOAA and how his or her activities relate to them.

For improved communication throughout the organization, the Functional Model provides a common analytical framework and lexicon for both the NOAA workforce and policy-oriented stakeholders. It will improve the quality and consistency of information exchanged within NOAA, and it will illustrate how NOAA creates value for society, the environment, and the economy for DOC, OMB, and members of Congress. In so doing, it will empower each of these parties to communicate precisely what they need and expect from the others. For instance, it allows for an explicit conversation about whether an information service bottleneck could be overcome by improving functions to observe, model, or distribute final information products.

APPENDIX D NOAA'S LOGIC MODEL

An objective-level logic model provides a summary view of how capabilities result in final impacts and the chain of events that lead resource inputs to outcomes (See Table D-1). The model provides logical linkages between Evidences of Progress, outcomes, outputs, activities, and associated Project Program Activities (PPAs) and LO/SO programs. The logic model also includes key gaps for each objective and provides potential solutions to fill them. When complete, it provides the basis for a fundamental performance narrative to justify existing or proposed programs.

When evaluating the strength of a logic model, it is not a question of pass/fail. Rather, the true test of a robust logic model is whether it builds a solid foundation for budget justification, and displays the methods behind that justification. It should clearly present what can and cannot be accomplished, relative to the NGSP and AGM, using base resources.

Under Inputs, PPAs affiliated with the Goal or Enterprise Objective should be included, as well as those PPAs from Primary Partners within the Integration Table. When examining the logic model as a whole, if gaps exist, a solution should be provided under Major Activities, using another activity or partnership.

For the FY2011-2017 Implementation Plan, short-term outcomes (1-2 years) should be achieved by FY13, while outcomes (5 years) should be achieved by FY2017. One or more outcomes may correspond to a single Evidence of Progress from the NGSP. More information on logic models in SEE is available to NOAA staff at **https://www.see.noaa.gov/docs/SEE_Guidance_Memo_III_Attachment.pdf**.

Table D-1 Sample Logic Model

EVIDENCE OF PROGRESS	**OUTCOMES** *(5 years)*	**SHORTTERM OUTCOMES** *(1-2 years)*	**KEY OUTPUTS** *(name of group of products/ services)*	**MAJOR ACTIVITIES** *(groups of general functioning activities)*	**INPUTS** *(list associated PPAs & Primary Partners from Integration Table)*
Enter evidence of progress from NGSP	Outcome 1	Short-term outcomes may correspond with milestones in AOP	Key outputs may correspond with milestones in AOP	Ongoing/Existing Activity—using base resources	+PPA 1/LO Pgm +PPA 2/LO/SO Pgm
	Outcome 2			Ongoing/Existing Activity—using base resources	+PPA 2/LO/SO Pgm
				Gap: Include solution for gap to be filled by activity or partnership, etc.	LO/SO Contribution with or without direct finance
				Ongoing/Existing Activity—using base resources	+PPA 2/LO Pgm +PPA 3/LO/SO Pgm
				Gap: Include solution for gap to be filled by activity or partnership, etc.	Participating LO

APPENDIX E
ANNUAL OPERATING PLAN GUIDANCE

All LO and SO Annual Operating Plans (AOPs) are to be developed using the guidance which will be available at: **www.see.noaa.gov/guidance.html**. Figure D-1 shows the suggested format.

Figure E-1
Sample AOP

National Oceanic and Atmospheric Administration
[insert Line/Staff Office name]
FY 2011 Annual Operating Plan

1.0 Planned Accomplishments

1.1 Milestones designed to achieve results in FY 2011. The milestones should be mapped to the NOAA NGSP Objectives and DOC Objectives via the Balanced Scorecard and based on the Annual Guidance Memorandum priorities.

1.2 Identify the GPRA or other corporate performance measure(s), internal performance measures, and milestones that will be used to track performance and support implementation of the NGSP.

1.3 Display FY milestones by quarter.

2.0 Budget/Resource Information (listed at sub-activity level)

2.1 Proposed funds realignment. List those in excess of $750K with impact to program(s).

2.2 Program Redirection (new starts/terminations of programs): Describe any new or terminated programs and how they relate to the Annual Guidance Memorandum and strategic decisions reached for FY 2011. Define needed actions to terminate programs. Document mission relationship of congressional priority programs (adds).

2.3 Extramural Research Budgets: Identify extramural research budgets (i.e., the amount to be transferred to universities, the SBIR program, etc.), and state how they relate to the Strategic Plan. Reference percentage change from FY 2010.

2.4 Financial Statement Audit Actions: Identify actions to be taken in the next FY to achieve and maintain an unqualified audit opinion.

3.0 Interdependency on other LO/SO

3.1 Display all interdependencies associated with each milestone across LO/SO. If none, report N/A. Dependencies could include AGO contract support, IT resources (i.e., IT investment/system name), ship or aircraft time, etc.

3.2 Display financial/resource commitment expected from other LO/SO, including fee-for-service, direct bill, Letter of Agreements, etc.

4.0 Transition of Research to Applications (Line Offices only)

4.1 Offices conducting research that has been identified and validated to be transitioned to applications: Identify all validated projects transitioning to operational status that have milestones in FY 2011.

4.2 Offices accepting transition projects and incorporating them into applications and/or operations: Identify all validated projects transitioning to operational status that have milestones in FY 2011.

5.0 Regional Collaboration Efforts

5.1 Organizational Responsiveness: Demonstrate how regional priorities based on regional trends and needs analysis have been addressed in your Planned Accomplishments.

5.2 Regional Partnerships: If you plan to be involved in major regional partnerships, such as those at the Governor level, list the amount of investment planned and demonstrate linkage to NOAA's Regional Collaboration effort.

5.3 List internal performance measures and milestones as a part of NOAA's Regional Collaboration effort that will be used to track your progress toward the Objective: Integrated Services Meeting the Demands of Regional Stakeholders.

APPENDIX F
GUIDE TO A GREENER EVENT

Living up to NOAA's Environmental Mission

NOAA has opportunities to lead by example through the demonstration of sustainable practices. Therefore, implementing environmental responsibility across all activities is necessary. These guidelines were developed in response to this need and serve as a framework for offices across the country.

Why is it important to have "green" events?

» Large amount of waste is generated at events

» Recycling programs at events are often absent

» Production of "giveaways" has become standard versus unique

» Impact of energy usage during events can be significant

» Food and beverage selection is designed for "throw away" set-up

» Involvement of the local community enhances local stewardship

Simple Steps Toward a Greener Event

Facility

» Research the environmental policies of the venue choices for events

» Ensure recycling receptacles are visible and functional

» Hold events close to public transportation to reduce the amount of driving necessary

» Consider an on-site location to avoid people having to take transportation outside their normal work commute

Food and Beverage

» Support Fair Trade food and beverage items, particularly from local vendors where possible

» Do not support a "throw away" mentality by supplying single-use materials

» Support local organic produce to reduce the transportation impact, educate event attendees, and demonstrate community involvement

» Consider donating un-used food to local food banks

Supplies

» Provide an incentive for participants to bring their own mug or cup to events

» Inventory supplies, as several offices have items such as industrial coffee urns that can be shared

» Procure post-consumer recycled paper products or use cloth products

» Procure compostable products, including utensils made from potato starch, plates from sugarcane, and beverage containers from cornstarch

» Use environmentally-friendly cleaning supplies at the conclusion of events

Thanks to NOS for developing this Green Event Guide.

Carbon Offsetting

» Offset the footprint of all associated activities, including energy usage, which cannot be eliminated

» Invest in carbon offsets pertinent to NOAA

Information

» Share information explaining why NOAA advocates for green events

» Use recycled paper if posters or handouts are absolutely necessary

» Empower others to embrace sustainability principles in their personal lives

Contributing to the Larger NOAA Goal of Environmental Compliance

» Comply with Federal, state, and local environmental regulations

» Increase employee and interested party knowledge of NOAA's and DOC's environmental administrative orders, policies, and goals

» Enhance recycling, pollution prevention, energy efficiency, and water conservation programs to reduce operating costs and preserve natural resources (EO 13423)

» Foster cooperation with surrounding communities by publicizing NOAA's environmental initiatives and supporting community-based environmental programs

» Strive for continual environmental program improvement by establishing environmental goals, tracking progress, taking corrective action, and sharing results with NOAA management, staff, regulators, and the public

NOAA WORLD is an internal, web-based newsletter to inform and inspire NOAA's 15,000-plus employees. The newsletter provides a wide variety of news about the people and programs that are making headlines across NOAA, including:

» Profiles of NOAA leaders and personnel

» Groundbreaking research and technological advances made by NOAA scientists

» Important regional and international conservation initiatives

» Innovative education and outreach programs

» Interactive multimedia, such as online videos, podcasts, and "Images of the Day"

» Important announcements

NOAA WORLD is published monthly by NOAA's Office of Communications & External Affairs and available at www.noaaworld.noaa.gov. Highlights from each month are available as a downloadable PDF file.

NOAA WORLD depends on your contributions:

» Have a great NOAA photo, video, or podcast you want to show off?

» Want to promote your favorite or new NOAA web site for our "Best of the Web" feature?

» Have a story idea for NOAA World?

» Interested in writing an article?

Send your ideas, photos, and articles to **noaaworld@noaa.gov**.

For up-to-date information about
NOAA's Next-Generation Strategic Plan,
visit **www.noaa.gov/ngsp**

Business Operations Manual

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Silver Spring, Maryland
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