New Priorities for the 21st Century

NOAA's Strategic Vision

U.S. DEPARTMENT OF COMMERCE ▪ NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NOAA's VISION

To move NOAA into the 21st century scientifically and operationally, in the same interrelated manner as the environment that we observe and forecast, while recognizing the link between our global economy and our planet's environment.

NOAA' s MISSION

To understand and predict changes in the Earth's environment and conserve and manage coastal and marine resources to meet our Nation's economic, social, and environmental needs.

Serving Every American Every Day

As the new century unfolds, important priorities for the National Oceanic and Atmospheric Administration (NOAA) are emerging in the areas of climate change, freshwater supply, ecosystem management, and homeland security. Every aspect of our mission faces a new urgency, given intensifying national needs related to the economy, the environment, and public safety.

NOAA's Strategic Plan responds to these challenges and to the President's Management Agenda for a citizen-centered, performance-driven organization that serves every American every day. It provides a blueprint for ensuring value and corporate accountability in our daily operations, and for improving our services to all Americans.

The Strategic Plan's elevation of ecosystem management and climate science to high-priority goals is especially noteworthy. Accurate and timely weather and water information are increasingly critical to protecting lives and property. NOAA's information services will also be critical to promote safe, efficient, and environmentally sound transportation in the coming decade.

NOAA's science-based management approach provides a solid foundation for economic growth and directly relates to the Administration's focus on a healthy economy. New priorities for environmental literacy, global observation systems, state-of-the-art research, international cooperation, and homeland security will improve NOAA's delivery and effectiveness of services for all of our mission goals. Ultimately, our success will be measured in the quality of information, service, and benefits we provide to our customers—the American public.

The priority of organizational excellence in the Strategic Plan will increase the satisfaction, performance, and productivity of our

employees and will ultimately improve their service to NOAA's customers. The quality of NOAA's working environment promotes the security, safety, and efficiency of our employees and must be maintained to the highest standards.

The Strategic Plan will guide our management decisions for the next decade, and will help our employees and partners better understand their roles in meeting our strategic goals and priorities. All NOAA programs and the entire NOAA budget will be traceable to the Plan.

In formulating our Strategic Plan, we met with many of our stakeholders and NOAA employees across the Nation and asked them to identify and comment on present and future environmental, economic, and public safety issues. As we strive to achieve our strategic goals, we will continue to seek valuable input from our partners and to build and sustain strategic national and international partnerships.

This document presents a condensed snapshot of the full Strategic Plan, which is available at www.osp.noaa.gov. I thank the women and men of NOAA who shaped the Strategic Plan and will be essential to its achievement. We look forward to your continued participation in building on the high quality of our science, service, and stewardship, and our overall organizational excellence.

Conrad C. Lautenbacher, Jr.
Vice Admiral, U.S. Navy (Ret.)
Under Secretary of Commerce for Oceans and Atmosphere

NOAA's CORE VALUES

People, Integrity, Excellence, Teamwork, and Ingenuity

Science, Service, and Stewardship

BENEFITS TO THE NATION

Consistent with its results-oriented approach to strategic planning, NOAA is committed to maximizing the benefits of its products and services in terms of improvements to our Nation's:

- Environment
- Public Safety
- Economy

ECOSYSTEMS

Coastal areas are among the most developed in the Nation. Our coastal counties are growing three times faster than other U.S. counties, adding more than 3,600 people a day to their populations. During the first decade of the 21st century, the greatest challenge will be to implement a truly integrated ecosystem management approach to all of NOAA's living resource responsibilities by all NOAA components.

Within this context, NOAA is working with its partners to achieve a balance between the use and protection of coastal and marine resources to ensure their health, sustainability, and vitality for today's and tomorrow's generations. Our primary focus will be rebuilding fisheries and recovery of protected species.

MISSION GOAL 1

Protect, restore, and manage the use of coastal and ocean resources through ecosystem-based management.

- **Every year 180 million tourists visit America's coastal communities.**
- **Our coastal and marine waters support over 28 million jobs and generate over $54 billion annually in goods and services.**
- **The commercial fishing industry contributes over $28 billion a year to our economy (in value added).**
- **More than 17 million Americans spend about $25 billion a year on recreational marine fishing activities.**




OBJECTIVES

NOAA has identified three strategic objectives under this mission goal:

- Protect, restore, and manage the use of our ocean, coastal, and Great Lakes resources.
- Protect, restore, and manage species and their habitats listed under the Endangered Species and Marine Mammal Protection Acts.
- Manage and rebuild fisheries to population levels that will support economically viable and sustainable harvests.

ECOSYSTEM-BASED MANAGEMENT

Because we recognize that our three strategic objectives are scientifically, socially, and economically interdependent, we are improving our science, management, and regulatory processes to support comprehensive, integrated ecosystem-based management of our coastal, ocean, and Great Lakes resources. We will invest in improved understanding of ecosystems, identification of regional ecosystems, development of ecosystem health indicators, and new methods of governance to establish the necessary knowledge, tools, and capabilities to fully implement ecosystem-based management.

We will work with our partners to manage multiple aspects of sustainable ecosystems, including fisheries resources, threatened and endangered species, marine mammals, biodiversity, important habitats that support those resources, and the impacts of ecosystem-based management decisions on the U.S. economy and communities. Ecosystem management will also require better understanding of the pressures—both natural and human-induced—that change ecosystems. Increasingly, we will turn to international cooperation to protect large marine ecosystems and areas beyond our national jurisdiction.




OUTCOMES

- Increased number of coastal and marine ecosystems maintained at a healthy, sustainable level.
- Increased social and economic value of the marine environment and resources (e.g., seafood, recreation, and tourism).
- Increased number of acres and stream-miles restored for coastal and ocean species.
- Increased number of protected species in a stable condition or an upward trend.
- Increased number of managed species that are at optimum levels.
- Improved ecological conditions in coastal and ocean protected areas.

STRATEGIES

Monitor and Observe With our partners we will monitor and observe fish species, protected resources, and ocean, coastal, and Great Lakes ecosystems and communities to provide basic information on habitats and the human activities that affect them.

Understand and Describe We will conduct research to understand and describe the ecological functions of coastal, ocean, and Great Lakes resources; the impacts of human activities on them; and the ecological and biological population aspects of protected and fish species.

Assess and Predict We will develop and implement models and integrate data sets to assess current ecosystems and predict their future state and the causes for ecological changes. We will also assess current populations of protected and fish species and predict their future abundance.

Engage, Advise, and Inform We will ensure that decision makers and the public are well informed about safe and wise uses of ocean, coastal, and Great Lakes resources, and about factors—especially hazards—that affect environmental health and safety. We will also inform them about the condition of protected species and the harmful effects of human interactions with them, and the health of fish species and the impacts of fishing and other human activities on them.

Manage We will develop and implement plans, regulations, permits, and enforcement activities for the protection, restoration, and wise use of ocean, coastal, and Great Lakes resources; the conservation and restoration of protected species; and the conservation, rebuilding, and wise use of fish species.

"The goal is to make sure that our seas and coastal areas—and all the many living resources and coastal economies that depend on them—stay healthy for your generation and for the many generations to come."

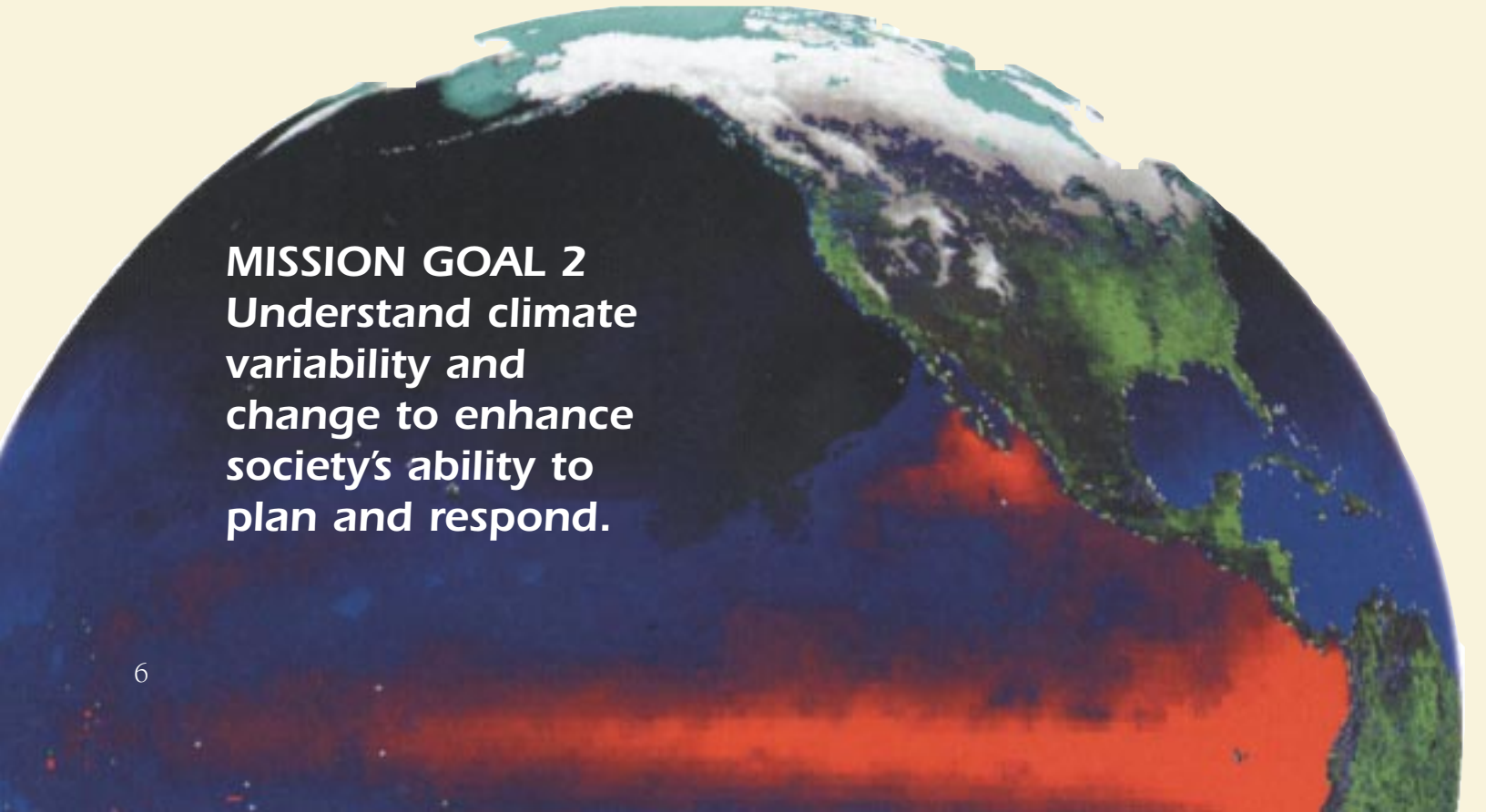
—Vice Admiral Conrad C. Lautenbacher, Jr. (Ret.)

CLIMATE

Society exists in a highly variable climate system, with conditions changing over the span of seasons, years, decades, and longer. Given such stresses as population growth, drought, increasing demand for fresh water, and emerging infectious diseases, decision makers need a reliable structure and process for receiving accurate, timely, relevant climate information to guide them in managing resources to maximize the benefits and minimize the impacts of climate variations.

To support community planners, public policymakers, business managers, homeland security experts, natural resource and water planners, and public health professionals, we will work with our national and international partners to:

- build an end-to-end system of integrated global observations of key atmospheric, oceanic, and terrestrial variables;
- enhance scientific understanding of past climate variations and present atmospheric, oceanic, and land–surface processes that influence climate;
- apply this improved understanding to create more reliable climate predictions on all time scales; and
- establish service delivery methods that continuously assess and respond to user needs with the most recent, reliable information possible.



MISSION GOAL 2
Understand climate variability and change to enhance society's ability to plan and respond.

- **During 1997–98, El Niño resulted in total U.S. economic impacts of $25 billion.**
- **NOAA's El Niño forecasts result in worldwide agriculture benefits of at least $450 million a year.**




OUTCOMES

- Increased use and effectiveness of climate observations to improve long-range climate, weather, and water predictions.
- Increased use and effectiveness of climate information for decision makers and managers (e.g., for industry, natural resource and water managers, community planners, and public health professionals).
- Increased use of the knowledge of how climate variability and change affect commerce.

STRATEGIES

Monitor and Observe We will invest in high-quality, long-term climate observations and will encourage other national and international investments to provide a comprehensive observing system in support of climate assessments and forecasts.

Understand and Describe To increase understanding of the dynamics and impacts of coupled atmosphere/ocean/land systems, we will work with our national and international partners to conduct research on climate variability and change.

Assess and Predict To provide decision makers with reliable, objective information, we will improve the skill and accuracy of our intraseasonal and interannual climate forecasts and our regional, national, and international assessments and projections.

Engage, Advise, and Inform We will help our customers effectively use climate information to enhance public health and safety; support environmental, economic, and community planning; maximize potential benefits; and minimize the impacts of climate variability, especially on freshwater supply, water quality, and coastal ecosystems.

WEATHER AND WATER

Hurricanes, tornadoes, floods, and other severe weather events cause an average $11 billion in damages every year to the U.S. economy. With so much at stake, NOAA's role in observing, forecasting, and warning of environmental events is expanding. Economic sectors and the public are increasingly using our weather, air quality, and water information to improve their operational efficiencies and manage environmental resources.

NOAA is strategically positioned to conduct sound science and provide integrated observations, predictions, and advice to support decision makers' responsible management of environmental resources. Bridging weather and climate time scales, we will continue to collect environmental data and issue forecasts and warnings that help protect life and property and enhance the U.S. economy.

We will work even closer with our existing partners and will develop new partnerships to achieve greater public and industry satisfaction with the availability and quality of our weather, air quality, and water information.

We will expand our services to support evolving national needs, including space weather, freshwater and coastal ecosystems, and air quality predictions throughout the Nation.

MISSION GOAL 3
Serve society's needs for weather and water information.

- **Hurricanes, tornadoes, tsunamis, and other severe weather events cause an average $11 billion in damages every year to the U.S. economy.**
- **Weather- and climate-sensitive industries account for about one-third of the Nation's gross domestic product, or $3.0 trillion.**
- **In the U.S. agricultural sector alone, better forecasts can be worth over $300 million annually, throughout El Niño, La Niña, and normal years.**




OUTCOMES

- Increased accuracy and amount of lead time (by category of storm type—e.g., hurricanes).
- Increased satisfaction with and benefits from NOAA information and warning services, as determined by surveys of emergency managers, first responders, natural resource and water managers, public health professionals, industry decision makers, government agencies, and the public.

STRATEGIES

Monitor and Observe To meet society's diverse and expanding needs for weather-related information, we will work with our international and domestic partners to cost-effectively increase the number, breadth, accuracy, and availability of observation systems.

Understand and Describe We will invest in new technologies, techniques, and weather and water forecast modeling to improve the accuracy and timeliness of our prediction capabilities and services.

Assess and Predict To reduce uncertainty and increase the economic benefits to the Nation from our forecast and warning capabilities, we will improve the performance of our suite of weather and water, air quality, and space weather prediction capabilities.

Engage, Advise, and Inform To enhance our customers' preparedness for responding to hazardous weather- and water-related conditions, we will deliver the products they need to make sound decisions related to safety, operating efficiencies, resource management, and air quality.

COMMERCE AND TRANSPORTATION

Transportation systems are our Nation's economic lifelines. As U.S. dependence on surface and air transportation grows over the next 20 years, and as maritime trade doubles, better navigation and weather information will be critical to protect lives, cargo, and the environment.

NOAA's products and services are essential to the safe and efficient transport of people and goods on the water, in the air, and on the land. Reduced risk of marine accidents and oil spills, better search-and-rescue capabilities, and other efficiencies derived from improved information and services could be worth over $300 million a year around the Nation's coasts.

We are committed to improving the accuracy and timeliness of our marine forecasts; providing advanced electronic navigational charts and real-time oceanographic information; and maintaining a consistent, accurate, and timely positioning network for safe and efficient maritime navigation, aviation, and ground transportation.

We will work with port and coastal communities and our federal and state partners to ensure efficient and environmentally sound port operations, to reduce the impacts of weather on aviation without compromising safety; and to provide private-sector weather forecasters the cost-saving information they require to meet their clients' needs.

MISSION GOAL 4

Support the Nation's commerce with information for safe, efficient, and environmentally sound transportation.

- **The U.S. marine transportation system ships over 95 percent of the tonnage of our foreign trade through America's ports.**
- **Waterborne cargo alone contributes more than $740 billion to the U.S. gross domestic product and creates employment for over 13 million Americans.**
- **The economic inefficiencies resulting from weather-related air traffic delays cost the airlines $4 billion a year.**
- **Every year, severe weather causes 7,000 vehicle fatalities, 800,000 injuries, 500 million vehicle-hour delays, and economic losses totaling $42 billion.**




OUTCOMES

- Increased use and effectiveness of environmental information for planning for marine, air, and surface transportation systems.
- Reduced number of and harm from navigation-related accidents due to groundings and collisions.
- Reduced number of port developments and operations causing environmental damage.
- Increased number of ports with an improved vessel cargo carriage capacity due to use of NOAA's marine navigation information products and services.
- Increased safety and productivity of transportation systems.

STRATEGIES

Monitor and Observe We will expand our advanced technology monitoring and observation systems to provide accurate, up-to-date environmental data, such as weather and oceanographic observations; marine, aviation, and surface transportation-related observations; hydrographic surveys; and precise positioning coordinates.

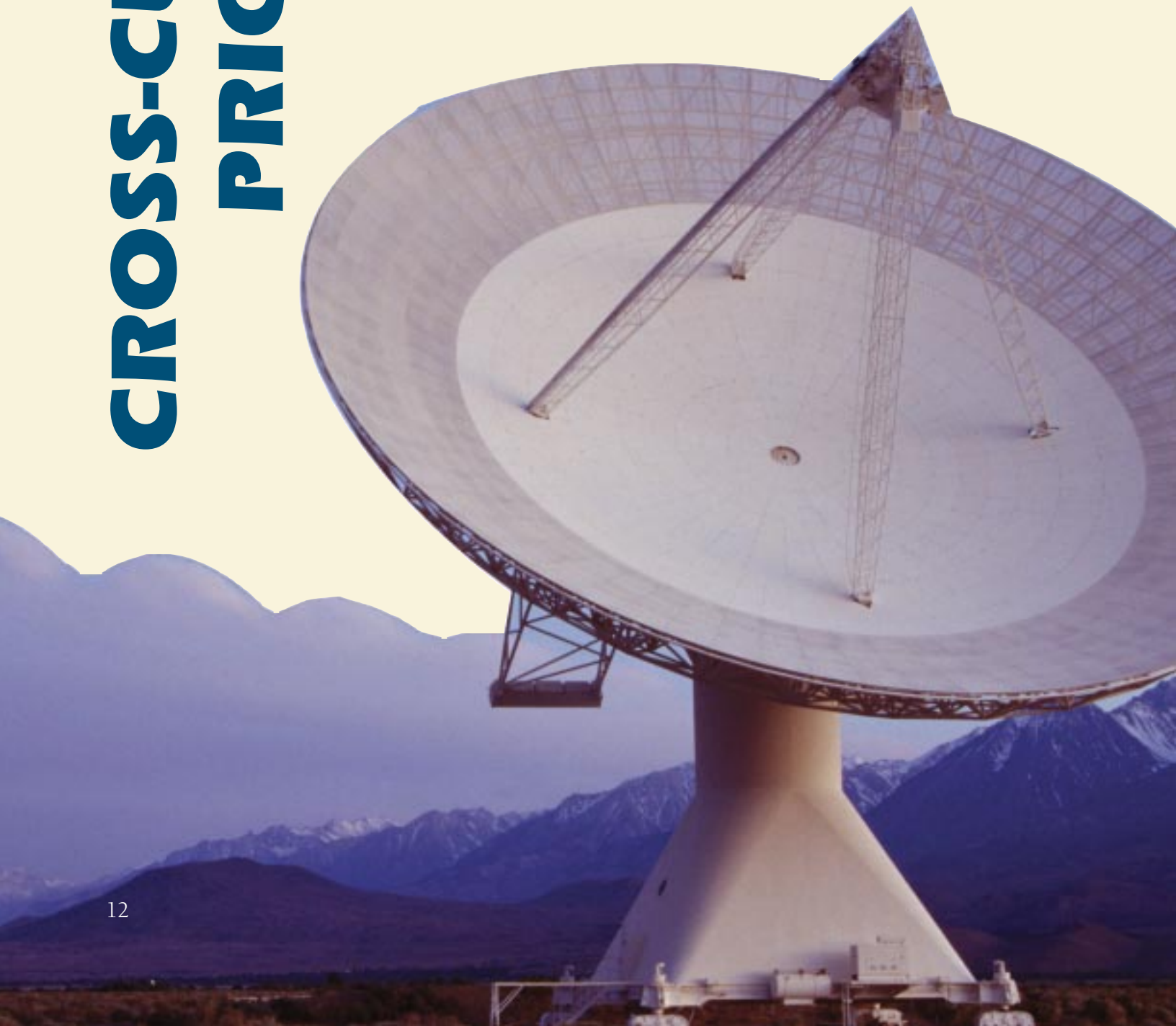
Understand and Describe We will develop and apply new technologies, techniques, and models to increase the capabilities, efficiencies, and accuracy of our products and services (e.g., improve the accuracy of the global positioning system (GPS) and technologies for controlling invasive species).

Assess and Predict We will develop and implement sophisticated assessment and prediction capabilities to support decisions on aviation, marine, and surface navigation efficiencies; coastal resource management; and transportation system management, operations, and planning.

Engage, Advise, and Inform We will work at the national, regional, and state levels and will use advanced delivery systems, such as the Internet and other e-commerce approaches, to provide customers with the products and services they need for safety-related decisions, operating efficiencies, better management of coastal resources, and improved transportation system management and planning.

CROSS-CUTTING PRIORITIES

When we met with our stakeholders and employees to identify NOAA's strategic directions for the next decade, both groups emphasized that we should give our core capabilities the same priority as our four mission goals—precisely because these capabilities provide the critical support we need to achieve our goals. The following cross-cutting priorities describe these core capabilities—the programmatic and managerial underpinnings that facilitate efficient and timely delivery of products and services to all Americans.



INTEGRATED GLOBAL ENVIRONMENTAL OBSERVATION AND DATA MANAGEMENT SYSTEM

We will work with our partners to develop global-to-local environmental observations and data management for comprehensive, continuous monitoring of coupled ocean/atmosphere/land systems. This network will enhance our ability to protect lives and property, expand economic opportunities, understand climate variability and change, and promote healthy ecosystems.

ENVIRONMENTAL LITERACY, OUTREACH, AND EDUCATION

We will establish an environmental literacy program to educate present and future generations about the changing Earth and its processes, to inspire our Nation's youth to pursue scientific careers, and to improve the public's understanding and appreciation of NOAA's missions. This program will improve the public's understanding of the natural environment and human response to natural hazards, will assist state and local natural resource managers, and will ensure that decision makers have access to, and the knowledge to use, the information they need to reduce significant human impacts on the environment and to respond to storm warnings and environmental change.

SOUND, STATE-OF-THE-ART RESEARCH

We will support high-quality research underpinning our environmental assessment, prediction, and ecosystem management missions. We will work with our partners to develop and implement the new products, services, and approaches to ecosystem management needed by a Nation facing urgent environmental, economic, and public safety challenges.




"Environmental literacy is critical to enable learners of all ages to pursue knowledge, produce advanced products, and enhance personal growth."

— U.S. Secretary of Commerce Donald L. Evans




INTERNATIONAL COOPERATION AND COLLABORATION

A rapidly shifting political, cultural, and economic world requires federal agencies involved in world affairs to cultivate fresh approaches and new services to maintain U.S. leadership in these fields. NOAA will continue to support and promote important policies and interests in ecosystem management, climate change, Earth observation, and weather forecasting and will seek to maximize the mutual benefits of international exchange with our global partners.

HOMELAND SECURITY

NOAA's core missions of environmental prediction and management are manifested in more than eighty capabilities that support America's efforts to prepare for and, if necessary, respond to terrorist attacks. Best known are NOAA's hazardous materials spill response capabilities; atmospheric and waterborne dispersion forecasting; vessel monitoring systems; and support for communities and first responders, including rapid on-site weather forecasts to support emergency operations, and civil emergency alert relay through NOAA Weather Radio. We are also ready to quickly provide NOAA ships, aircraft, global observation systems, and professional law enforcement officers to serve the Nation when the need arises.

ORGANIZATIONAL EXCELLENCE

Improvements in five key areas will increase customer and employee satisfaction with our administrative processes; improve our organizational performance, productivity, and employee safety; and address the reforms necessary to comply with the President's Management Agenda.

Leadership

We will improve our policy, programmatic, and managerial foundations as we grow tomorrow's leaders and build a corporate NOAA that facilitates the effective, timely delivery of our products and services.

Human Capital

We will expand workforce training, incentives, succession planning, and other administrative tools to recruit and retain a skilled workforce.

Facilities

We will invest in facility modernization, repair, and maintenance to ensure an environment that is healthy, safe, secure, and most productive for our employees.

Information Technology

We will maintain and improve our technology infrastructure to enhance our scientific productivity through seamless sets of observational and forecast products, advanced high-bandwidth networks, supercomputing capabilities, and actions to improve our customers' use of e-government to receive 24 x 7 service—24 hours a day, 7 days a week.

Administrative Programs and Services

We will improve the efficiency, accountability, and customer satisfaction of our administrative programs and services, including financial performance, human resources, information technology and electronic government, grants management, competitive sourcing, and budget and performance integration and assessing customer satisfaction.

Building a NOAA Corporate Framework

We have devoted considerable rigor and commitment to customer service in developing the Strategic Plan. The next step—aligning every NOAA project and program to this new corporate framework—will require the dedication and discipline of everyone on our NOAA team.

In our new corporate NOAA, strategic planning will be a coordinated, ongoing process involving a continuous dialogue with our stakeholders and employees. Our future strategic planning goals will reflect the consensus of diverse stakeholders committed to a common cause. We will use periodic reviews and surveys, monitoring of performance measures, and the free flow of ideas to update and revise our Strategic Plan.

We are sincerely grateful to our constituents and employees, whose input and direction were invaluable in helping us shape our Plan. We look forward to your continued participation in building an entrepreneurial, corporate NOAA.

"The Earth's well-being…is an issue important to America—and it's an issue important to every nation and in every part of the world."

—President George W. Bush

ACKNOWLEDGMENTS

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