

EXECUTIVE SUMMARY

Introduction

The mission of the National Oceanic and Atmospheric Administration (NOAA) is to describe and predict changes in the Earth's environment, and conserve and manage the Nation's coastal and marine resources to ensure sustainable economic opportunities. NOAA conducts research to develop new technologies, improve operations, and supply the scientific basis for managing natural resources and solving environmental problems. NOAA's comprehensive system for acquiring observations—from satellites to ships to radars—provides the quality data and information needed for the safe conduct of daily life and the basic functioning of a modern society. Common end products and services include weather warnings and forecasts, environmental technologies, marine fisheries statistics and regulations, nautical charts, assessments of environmental changes, and hazardous materials response information. These capabilities, products and services support the domestic security and global competitiveness of the United States, and affect the lives of nearly every citizen every day.

In a period of strongly competing government priorities, the President's FY 1998 Budget Request for NOAA affirms the agency's role by providing the resources to maintain essential services, facilitate continuing progress in critical investment areas, and address statutory obligations. This proposed budget ensures an appropriate balance among the environmental assessment, prediction and stewardship needs of the Nation.

NOAA's request includes support for several Presidential Initiatives, including Clean Water, South Florida, Climate and Global Change, and GLOBE.

Compared with FY 1997, significant changes in the FY 1998 budget include:

- ❖ +\$66.2 million for continuing geostationary weather satellite development and acquisition, and +\$22.5 million to converge civilian and military polar-orbiting satellites.
- ❖ +\$22 million for NOAA's participation in the President's Clean Water Initiative, including \$4 million for the Community-Right-To-Know Project on toxics, and \$18 million for state grants, technical assistance and demonstration projects to reduce toxic runoff into coastal waters under the Coastal Zone Management program.
- ❖ +\$16.6 million to continue the President's commitment to restore the health and wealth of America's fisheries and protect species in danger of extinction.
- ❖ +\$4.9 million to ensure an operating base for the Tropical Oceans-Global Atmosphere (TOGA) system critical to the production of climate forecasts.

- ❖ +\$10.8 million for base restoration in the National Weather Service to maintain the critical mass necessary to operate infrastructure.
- ❖ +\$16.9 million to proceed with the nationwide deployment of the Advanced Weather Interactive Processing System (AWIPS).
- ❖ +\$6 million to fund costs of disestablishing the NOAA Corps.
- ❖ +\$15.2 million for construction of the Santa Cruz fisheries laboratory.
- ❖ +\$12.6 million for construction of a NOAA operations and research center at the Goddard Space Flight Center. This is offset by \$4.7 million in savings from consolidation of existing space.
- ❖ Total savings of \$172.5 million for program reductions, streamlining, and terminations.

The challenge of investing strategically in the Nation's future is accompanied by the requirement to be more effective, to identify and realize opportunities for savings and to focus the efforts of Government on what matters to people. Performance is what counts, and the FY 1998 budget includes measures which track results to the level of investment. Success in this changing world increasingly will depend on partnerships with business and industry, universities, state and local governments, and international parties. NOAA will continue to develop partnerships to leverage resources and talent, and provide the means for meeting program requirements more effectively.

NOAA's Budget Request for Fiscal Year 1998

The total FY 1998 NOAA request is \$2,051.2 million in new total budget authority, an increase of \$78.5 million over the FY 1997 enacted level. Of this total, \$1,540.8 million are in the Operations, Research and Facilities (ORF) account, \$503.5 million are in a new Capital Assets Acquisition account, and \$6.9 million are for fisheries funds and other special accounts.

The FY 1998 President's Budget contains a number of changes to the NOAA account structure. First, is the establishment of a Capital Assets Acquisition account which will seek multi-year appropriations for capital projects contained formerly in the Operations Research and Facilities, Construction and Fleet Modernization, Shipbuilding and Conversion accounts. In addition, NOAA proposes to eliminate the Fleet Modernization, Shipbuilding and Conversion and Construction accounts and incorporates the projects not requested in the Capital Assets Acquisition account in two new activities: Facilities and Fleet Maintenance and Planning within the Operation, Research and Facilities account. A more complete description of the accounts and multi-year request is on pages 13 and 14.

The NOAA budget request includes transfers of \$66.4 million from the Department of Agriculture to the Promote and Develop Fishery Products and Research Pertaining to American Fisheries account and \$5.2 million from the Department of Interior to the Damage Assessment and Restoration Revolving Fund.

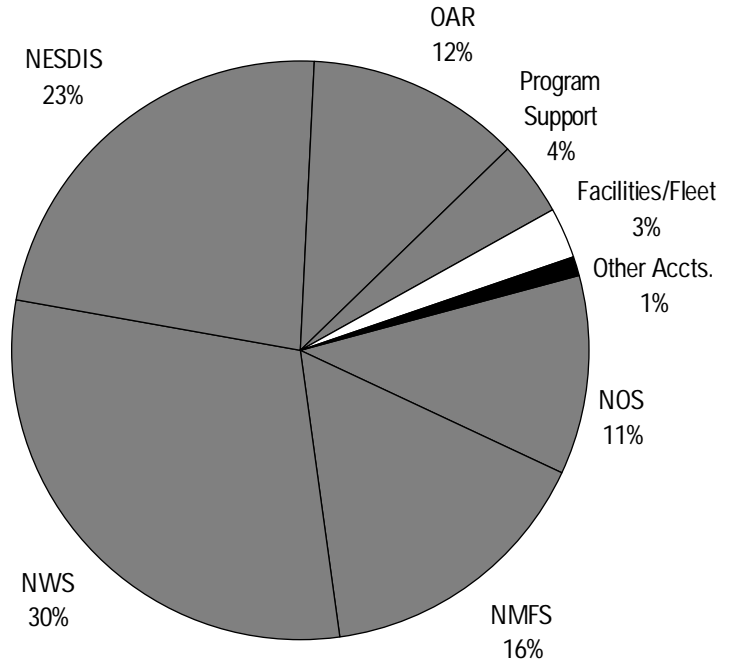
NOAA also proposes to change the Fishing Vessel Obligation Guarantee account to the Fisheries Finance Program account. This proposed change is the result of a recent amendment to the Magnuson-Stevens Fishery Conservation and Management Act that changed the program from a guarantee loan program to a direct loan program. This program includes accounts for loans previously awarded as loan guarantees and the new direct loans.

The budget also proposes an increase in the financing from the deobligation of prior year recoveries to \$24.0 million to reflect anticipated one time major contract savings of \$10 million.. The FY 1998 request reflects scoring of the spending authority for the Coastal Zone Management Fund as discretionary budget authority.

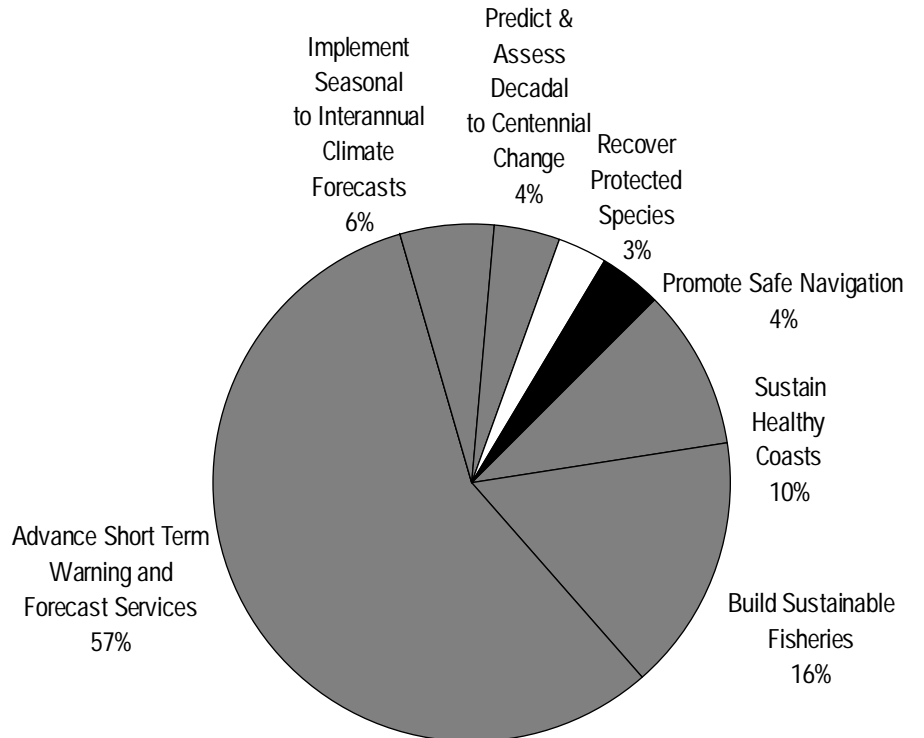
The following three pages provide summary charts and a summary table of the FY 1998 NOAA Budget Request. NOAA's budget is displayed in two formats: 1) the traditional, activity-based budget structure in which the FY 1998 President's Budget Request to the Congress is presented beginning on page 35; and 2) the goal-based approach of the NOAA Strategic Plan in which funds are distributed by strategic goal and objective beginning on page 87.

Summary Charts of FY 1998 Budget Request

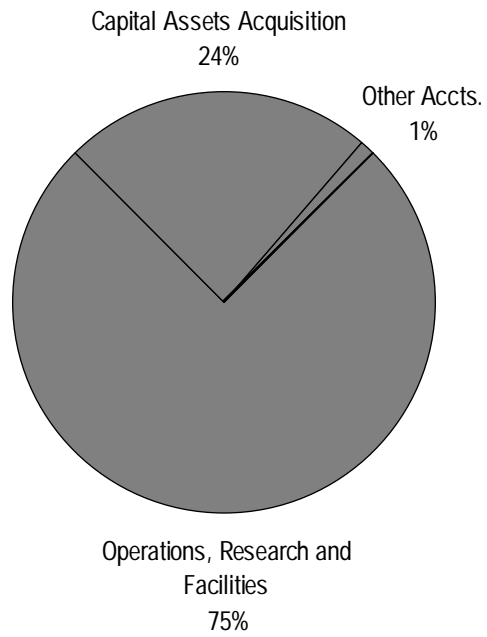
Participation by Activity



Strategic Plan Objectives



Request by Account



**Total Request for FY 1998—Budget Authority for All Accounts:
\$2,051,234,000**

FY 1998 NOAA Budget Request

(Dollars in Thousands)

Traditional Budget Structure:	FY 1997	FY 1998	Increase/
	Currently Available	Request	(Decrease)
Operations, Research and Facilities (ORF):			
National Ocean Service	\$205,926	\$224,836	\$18,910
National Marine Fisheries Service	321,696	338,264	16,568
Oceanic and Atmospheric Research	253,169	248,050	(5,119)
National Weather Service	637,997	503,763	(134,234)
National Environmental Satellite, Data and Information Service	447,582	149,485	(298,097)
Program Support	71,697	77,158	5,461
Facilities	0	17,603	17,603
Fleet Maintenance and Planning	0	11,823	11,823
Rescission - Unobligated Satellite Balances (20,000)	0	0	20,000
Rent Savings	0	(4,656)	(4,656)
Total Direct Obligations (ORF)	1,918,067	1,566,326	(351,741)
Recoveries from prior years/Other	(15,500)	(25,500)	(10,000)
Total Budget Authority (ORF)	1,902,567	1,540,826	(361,741)
Transfers	(71,500)	(67,581)	3,919
Appropriation (general fund - net) - ORF	1,831,067	1,473,245	(357,822)
Offsetting Collections	3,000	0	(3,000)
Appropriations (with collections) - ORF	1,834,067	1,473,245	(360,822)
Capital Assets Acquisition Account	0	503,464	503,464
Construction and Fleet	66,250	0	(66,250)
Other Accounts - Budget Authority	3,927	6,944	3,017
Total NOAA Budget Authority	1,972,744	2,051,234	78,490
Mandatory Funds	(61,981)	(61,645)	336
Discretionary - Budget Authority	1,910,763	1,989,589	78,826
Strategic Plan Goals - All Accounts			
	FY 1997	FY 1998	Increase/
	Currently Available	Request	(Decrease)
Advance Short-term Warning and Forecast Services	1,139,483	1,178,434	\$38,951
Implement Seasonal to Interannual Climate Forecasts	112,212	115,263	3,051
Predict and Assess Decadal to Centennial Climate Change	87,409	90,630	3,221
Promote Safe Navigation	91,869	84,690	(7,179)
Build Sustainable Fisheries	326,923	331,993	5,070
Recover Protected Species	62,699	69,719	7,020
Sustain Healthy Coasts	193,549	212,241	18,692
Financing	(41,400)	(31,736)	9,664
Total NOAA Budget Authority	1,972,744	2,051,234	78,490
Mandatory Funds	(61,981)	(61,645)	336
Discretionary - Budget Authority	1,910,763	1,989,589	78,826

Changes to the Account Structure

The creation of the Capital Assets Acquisition Account (CAA) responds to the requirements of the Federal Acquisition Streamlining Act of 1994 and the Information Technology Management Reform Act of 1996 and includes capital projects contained formerly in the Operations Research and Facilities (ORF) account and the Construction account within the National Oceanic and Atmospheric Administration. Although no funding is currently identified, this account would also contain any requests for Fleet Replacement previously requested in the Fleet Modernization, Shipbuilding and Conversion account.

Placing these projects in this account is consistent with the Administration's fixed asset policy by seeking advanced appropriations for multi-year projects (see following table). The Administration supports full funding as part of an ongoing attempt to improve cost and performance of agency procurement. The Administration's goal is to ensure that capital assets support core/priority missions of the agency; the assets have demonstrated a projected return on investment that is clearly articulated, cost-benefits of acquisition have been evaluated, and to help ensure accountability.

The projects included in this account support NOAA's operational mission across all line offices. In particular, projects related to the National Weather Service modernization and on-going operations are included. Increased funds are proposed for deployment of Advanced Weather Interactive Processing Systems (AWIPS), as well as current and follow-on geostationary satellites. Funds are also requested for new construction of a Fisheries laboratory in Santa Cruz, California, and a new facility at the Goddard Space Center.

With the creation of the Capital Acquisition Account (CAA) to provide funding for multi-year projects, the need for separate Construction and Fleet Shipbuilding and Conversion accounts is eliminated, because like the CAA, these accounts were established to facilitate the funding of multi-year projects without impacting the overall ORF outlay rate and to avoid jeopardizing operational, base programs. Funds for projects that have outlay rates more in line with the overall ORF outlay rates such as facility and ship maintenance are requested, beginning in FY 1998 within the ORF account under two new activities—Facilities, and Fleet Maintenance and Planning. A table, Bridge of Changes From FY 1997 to FY 1998 in the Appendix, provides a more detailed layout of these changes.

Capital Assets Acquisition

(dollars in thousands)

	FY 1997 Approp.	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003 To FY 2010	Total
CAPITAL ASSETS ACQUISITION:								
NEXRAD		\$11,377	\$11,224	\$8,697	\$9,202	\$8,563	10,000	59,063
ASOS		4,494	4,705	4,025	6,755	6,135	5,000	31,114
AWIPS		116,910	69,391					186,301
Computer Facility Upgrades		5,910	10,200	8,800	8,800	8,800	8,800	51,310
POES K-N'		82,905	172,684	129,030	85,271	75,157	181,133	726,180
GOES I - M		89,854	102,100	75,475	70,375	24,975	2,500	365,279
GOES N - Q		147,819	256,421	315,970	293,517	239,300	1,147,540	2,400,567
Goddard Facility		12,572	74,825	1,299	2,696	9,379	838	101,609
Boulder Lab ASC		1,900	9,078		10,978			
WFO Construction		13,823	8,189	6,082	3,432	2,832		34,358
NCEP		700	809	1,313		2,822		
Santa Cruz/Tiburon		15,200	4,200	19,400				
Subtotal, Capital Assets Acquisition		503,464	723,826	550,691	480,048	375,141	1,355,811	3,988,981
NON-CAPITAL PORTION (ORF):								
Radiosonde Replacement Network	1,500	910	2,410					
NEXRAD	53,145	39,591	39,887	40,576	40,076	40,076	253,351	
ASOS	10,056	5,341	5,237	5,070	4,970	4,870	35,544	
AWIPS	100,000	12,638	33,057	20,385	14,373	180,453		
Computer Facility Upgrades	14,000	8,000	3,200	200	200	200	25,800	
POES K-N'	147,300	147,300						
Polar Satellite Convergence (NPOESS)	29,000	51,503	35,000	65,000	104,000	149,000	433,503	
GOES I - M	110,621	110,621						
GOES N - Q	60,859	60,859						
Rent offsets to finance Goddard		(4,656)	(4,656)	(4,656)	(4,656)	(4,656)	(23,280)	
Boulder Lab ASC	2,000	2,000						
WFO Construction	12,000	12,000						
Fleet Modernization	8,000	11,823	11,823	11,823	11,823	11,823	67,115	
Subtotal, ORF Components	548,481	112,512	103,129	151,070	176,798	215,686	1,307,676	
TOTAL PROGRAM, CAPITAL & NON-CAPITAL:								
Radiosonde Replacement Network	1,500	910						2,410
NEXRAD	53,145	50,968	51,111	49,273	49,278	48,639	10,000	312,414
ASOS	10,056	9,835	9,942	9,095	11,725	11,005	5,000	66,658
AWIPS	100,000	116,910	82,029	33,057	20,385	14,373		366,754
Computer Facility Upgrades	14,000	13,910	13,400	9,000	9,000	9,000	8,800	77,110
POES K-N'	147,300	82,905	172,684	129,030	85,271	75,157	181,133	873,480
Polar Satellite Convergence (NPOESS)	29,000	51,503	35,000	65,000	104,000	149,000	0	433,503
GOES I - M	110,621	89,854	102,100	75,475	70,375	24,975	2,500	475,900
GOES N - Q	60,859	147,819	256,421	315,970	293,517	239,300	1,147,540	2,461,426
Goddard Facility (net of rent offsets)		7,916	70,169	(3,357)	(1,960)	4,723	838	78,329
Boulder Lab ASC	2,000	1,900	9,078					12,978
WFO Construction	12,000	13,823	8,189	6,082	3,432	2,832		46,358
NCEP		700	809	1,313				2,822
Santa Cruz/Tiburon		15,200	4,200					19,400
Fleet Modernization	8,000	11,823	11,823	11,823	11,823	11,823	67,115	
Total Program, Capital & Non-Capital	548,481	615,976	826,955	701,761	656,846	590,827	1,355,811	5,296,657

Highlights of the FY 1998 Request

NOAA's budget request of \$2.051 billion in new budget authority for FY 1998 is predicated on the need to ensure the continued delivery of essential science, technology and services to the Nation. Highlights of the request are presented, as follows, in the context of the NOAA Strategic Plan and with an emphasis on the major operational units and programs contributing to the strategic goals. The Strategic Plan establishes the seven major goals of the agency, and guides the most effective combined application of the entire suite of agency assets for attaining these goals, which are grouped into two missions—Environmental Stewardship, and Environmental Assessment and Prediction. Resources for program administration, acquisition of data, aircraft services, and supporting infrastructure are included in the total request for each strategic goal, and are described in greater detail beginning on page 35.

Environmental Assessment and Prediction Mission

Advance Short-Term Warning and Forecast Services

Total Request: \$1,178,434,000

NOAA requests \$1,178.4 million to address this strategic goal, a net increase of \$39.0 million over FY 1997. The objectives are to:

- ❖ complete weather service modernization;
- ❖ maintain operational satellite coverage;
- ❖ strengthen observing and prediction systems;
- ❖ improve customer service to the public.

These objectives will be accomplished primarily through the efforts of the National Weather Service (NWS), the National Environmental Satellite, Data and Information Service (NESDIS) and the Office of Oceanic and Atmospheric Research (OAR). For the NWS, the request includes: \$438 million to support the current operational and research infrastructure and continue planned streamlining activities under the modernization, a net decrease of \$8.1 million from 1997; and \$191.6 million for major systems acquisition supporting the modernization, a net increase of \$14.4 million. Within the total amount for systems acquisition, the request includes \$116.9 million for continued deployment of the Advanced Weather Interactive Processing System (AWIPS), an increase of \$16.9 million over 1997. For NESDIS, \$372.0 million is needed to ensure continuous GOES and Polar-orbiting satellite coverage including environmental observing services, a decrease of \$1.1 million from 1997; and \$51.5 million is required to meet NOAA's commitment to share development costs with the Department of Defense for the National Polar-orbiting Operational Environmental Satellite System, an increase of \$22.5 million over 1997. For OAR, a total of \$49.6 million is requested to advance the science of weather forecasting over land, sea and space, and to improve weather-related observing technologies, a decrease of \$2.4 million from 1997.

The scientific and capital investment required for the modernization of weather services—including radars and satellites, advanced computer models and communications systems, and field restructuring—is paying off with lives saved, property damages avoided, and impacts mitigated for weather-sensitive sectors of the economy. During 1996, NWS forecasters issued numerous tornado warnings with lead times in excess of 15 minutes, reducing the loss of life. During Hurricane Fran, warnings were issued 31 hours before the storm made landfall; flood potential statements were issued two to three days in advance as

the storm headed north; and six hours of advance notice were provided for flash flooding. In January of 1996, the NWS issued three- to five-day advance forecasts of the east coast blizzard, prompting emergency authorities to significantly enhance response preparations and airlines to move their air fleets from affected regions. These results show that improved warning and forecast services are enhancing public safety and the economic productivity of the nation. Once modernization is completed, the nation should realize annual benefits to the economy of some \$7 billion.

Implement Seasonal to Interannual Climate Forecasts

Total Request: \$115,263,000

NOAA requests \$115.3 million to address this strategic goal, a net increase of \$3.1 million over FY 1997. The objectives are to:

- ❖ deliver useful climate forecasts and information;
- ❖ enhance observing and data systems providing input to model predictions;
- ❖ invest in process and modeling research leading to improved predictions; and
- ❖ assess the impacts of climate variability on human activity and economic potential.

These objectives will be accomplished primarily through the efforts of the NOAA Climate and Global Change Program, the OAR Environmental Research Laboratories (ERLs), NESDIS, and the NWS' National Centers for Environmental Prediction. For OAR, the request provides \$66.8 million to: develop operational ENSO observations, including an increase of \$4.9 million over 1997 to ensure an operating base for the Tropical Oceans-Global Atmosphere (TOGA) system and reflect the maintenance responsibilities from NOAA's Climate and Global Change program; improve dynamical seasonal prediction activities at the National Centers for Environmental Prediction, including automating the production of climate forecasts and delivering forecast and monitoring products; support the International Research Institute for climate prediction; improve climate modeling over North America; and assess socio-economic impacts. For NESDIS, \$37.2 million is needed for observing and data systems and data management requirements including the National Climatic Data Center, for improvements to the satellite active archive, and for linking NESDIS data centers and other NOAA centers of data via a virtual data system. In addition, \$2.8 million is requested for the National Ocean Service (NOS) to maintain and improve observing and data delivery systems that support climate forecasting requirements, and \$4.7 million is requested for the NWS to provide operational climate predictions and analyses under central forecast guidance, and update products on delivery systems.

Emerging capabilities to forecast climate are the result of federal investments in basic research, development and deployment of global observing and data systems, and transition of research findings to operational needs. Climate services will be as important to 21st century economies and societies as weather forecasting is today, and the future capacity to deliver uniform climate information will continue to depend strongly on federal support for process and modeling research, and for the collection of global data needed to initialize and validate climate models. For example, the insurance industry has become increasingly vocal in its support of the essential science underlying climate prediction, due to the tremendous economic impact of weather-related natural disasters. According to the Worldwatch Institute's 1996 State of the World report, since 1990, insurance providers worldwide have paid out \$48 billion for weather-related losses, compared with losses of \$14 billion for the entire decade of the 1980's.

Predict and Assess Decadal to Centennial Change

Total Request: \$90,630,000

NOAA requests \$90.6 million to address this strategic goal, a net increase of \$3.2 million over FY 1997. The objectives are to:

- ❖ characterize the agents and processes that force climate change;
- ❖ examine the role of the ocean in influencing change;
- ❖ ensure a long-term climate record;
- ❖ guide the rehabilitation of the ozone layer;
- ❖ provide the scientific basis for improved air quality by understanding and monitoring surface ozone; and
- ❖ develop predictive models scientific assessments, and human impacts information related to long-term change.

These objectives will be accomplished largely through the efforts of the NOAA Climate and Global Change Program and OAR. In OAR, the request includes: \$28.7 million for climate and global change research in increase of \$1.9 million; \$7 million for the Global Learning and Observations to Benefit the Environment (GLOBE) Program, an increase of \$1 million over 1997; \$25.9 million for long-term climate and air quality research, including an increase of \$1 million for NOAA's health of the atmosphere initiative in preparation for the Nation's first scientific air quality assessment; \$1.5 million for advanced computing support; and \$7.7 million for improving the understanding of the role of oceans in influencing climate change. In addition, \$3.2 million is requested in NESDIS for data and information services supporting the long-term climate

record; and \$8.2 million is needed in the NWS to continue to provide temperature, precipitation, evaporation and river stage data for climatic and hydrologic monitoring and services.

In collaboration with university, government and international partners, NOAA provides the measurements, research, models, predictions and assessments that form the scientific basis for understanding global change phenomena. For over three decades of long-term monitoring, NOAA has produced incontestable evidence that carbon dioxide is increasing in the atmosphere. NOAA also has documented a decrease in tropospheric levels of ozone-depleting chemicals, a first-time observation that demonstrates the emerging effectiveness of the Montreal Protocol. Late in 1995, the U.N. Intergovernmental Panel on Climate Change (IPCC) released findings indicating that temperature may increase 1 to 3.5 degrees Celsius, and sea level may rise 15 to 95 centimeters, by the year 2100. These global trends will affect both natural processes and human systems, including agriculture, energy, and the worldwide transmission of diseases. NOAA played a lead role in developing the science assessments upon which the IPCC report was based. Decisions on actions to mitigate anticipated changes on the order of decades to centuries will never receive domestic and international backing unless they are supported by sound science. NOAA continues to work to provide leadership and science-based information for these types of decisions, focusing on climate change and greenhouse warming, ozone layer depletion, and air quality improvement.

Promote Safe Navigation

Total Request: \$84,690,000

NOAA requests \$84.7 million to address this strategic goal, a net decrease of \$7.2 million from FY 1997. The objectives are to:

- ❖ deliver a digital nautical charting database to underpin new electronic navigational systems;
- ❖ update nautical surveys using full-bottom coverage technologies;
- ❖ install systems to provide mariners with real-time observations and forecasts of water levels, tides and currents, and weather conditions in major ports;
- ❖ transform the obsolete geodetic reference frame into a Global Positioning System-based system; and
- ❖ provide for the two-year transition of aeronautical charting to the Federal Aviation Administration (FAA).

These objectives will be accomplished largely through NOS's mapping, charting and geodesy, and observation and prediction subactivities. NOS requires \$36.1

million to update nautical surveys and deliver digital nautical charting databases, including the production of raster nautical charts, a decrease of \$1.9 million from 1997. This request amount includes a \$12.6 million replacement of funds to support map compilation and database management activities formerly reimbursed by the Defense Mapping Agency, and a \$14.5 million decrease for the first stage of a two-year transfer of the aeronautical charting program to the FAA. During FY 1998, NOAA will continue the timely and accurate processing and delivery of aeronautical information for air traffic control and aeronautical safety, but on a reimbursable basis with the FAA. In FY 1999, both the funding and the personnel required for conducting this work will be fully assumed by the FAA. NOS also requires \$23.2 million to acquire oceanographic and hydrographic data and to make available marine predictions and advanced oceanographic observations important to pilots and port authorities, a decrease of \$5.0 million from 1997; and \$19.2 million to provide a national spatial reference system that utilizes the Global Positioning System for navigation and positioning, a decrease of \$1 million from 1997.

Sea-going commerce has tripled in the last 50 years, and 98 percent of our international trade by weight moves through U.S. ports. Fifty percent of the total tonnage is oil or other hazardous material. Despite the risk that accompanies increasing traffic, and the competitive advantage of modern observations and systems, much of the Nation's charting and geodetic infrastructure is not up to world standards. Accurate charts and modern navigation systems are required for safe and efficient maritime transport. NOAA collects, processes and distributes such information in support of national, commercial and individual needs. NOAA is working to modernize U.S. marine and air navigation, mapping and surveying, and to provide a precise satellite-derived reference system as the basis for the nation's 21st century positioning needs. For example, during 1996, NOAA's NOS produced 235 new editions of nautical charts and 14,682 new aeronautical charts and associated products; acquired and processed data from 50 hydrographic surveys and two airborne laser surveys; reduced the data-to-chart time from years to six months by implementing a "just-in-time" delivery system for applying new hydrographic data to nautical chart editions; and installed 153 Federal Base Network stations, and 47 continuously operating reference stations, that will form the basic positional framework for the Nation's future spatial data infrastructure.

Environmental Stewardship Mission

Build Sustainable Fisheries

Total Request: \$331,993,000

NOAA requests \$332.0 million to address this strategic goal, a net increase of \$5.1 million over FY 1997. The objectives are to:

- ❖ assess the status of fishery resources;
- ❖ advance fishery predictions;
- ❖ manage for economic growth by developing plans for reducing excessive fishing and capital investment;
- ❖ ensure adequate compliance with fishery regulations; and
- ❖ provide research and services for fishery-dependent industries to maximize benefits from marine resources.

These objectives will be accomplished primarily through the efforts of the National Marine Fisheries Service (NMFS), OAR and NOAA's Coastal Ocean Program (COP). For NMFS, the request is \$256.3 million (this includes \$19.4 million for Acquisition of Data previously funded in the Marine Services line item), an increase of \$7.6 million over 1997 to: collect, evaluate and disseminate fisheries data including developing strategies for bycatch reduction; conduct conservation and management operations including funding of Regional Fishery Management Councils for developing and amending fishery management plans; execute provisions of the recently-passed Magnuson-Stevens Fishery Conservation and Management Act including providing for new national standards and implementing essential fish habitat requirements; improve at-sea and shoreside compliance; and provide grants and other assistance for fisheries development programs. NOAA also requests \$23.0 million to address new facilities needs, including the Tiburon, California fisheries laboratory, and to maintain existing laboratories. For OAR, funding of \$23.5 million in the Sea Grant Program, National Undersea Research Program (NURP), and marine prediction research subactivities is needed to: improve technologies for tracking and estimating aquatic biomass; advance aquaculture and economic growth initiatives; apply new computing techniques; and provide for other research activities including in-situ undersea research. For COP, \$7.4 million is requested to strengthen abilities to assess and predict natural and human-induced changes and their impact on fisheries health.

There is a strong consensus among lawmakers, fishery managers, the fishing industry and the public, that depleted fishery resources must be restored and healthy fisheries must be maintained and managed for greater efficiency. Of the

fishery stock groups under the purview of NOAA for which population status is known, 36 percent are overutilized. Even fisheries that are producing a large catch are doing so with unnecessary cost and waste. Well-managed fisheries produce significant and continuous benefits, such as the \$1 billion Alaskan groundfish fishery. Controlled access measures implemented in the \$180 million Alaskan halibut/sablefish fishery have resulted in reduced accidents and property loss, increased economic value of the resource, and reduced bycatch. Since 1994, NOAA has increased the number of fishery management plans with access controls implemented by nearly 30 percent. NOAA estimates that restoring fisheries will have a potential \$25 billion total positive impact on the national economy.

NOAA is providing the federal leadership and support to make this happen. Accurate and timely resource assessments are being used to guide management decisions. NMFS, the Coastal Ocean Program, the National Sea Grant College Program, OAR's Environmental Technology Laboratory, and other parts of NOAA, are conducting research to advance fishery predictions, reduce costs of conventional stock assessments, develop advanced remote sensing techniques, improve fishery habitat and mitigate harmful algal blooms. The recently reauthorized Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) strengthens the ability of NMFS and the eight Regional Fisheries Management Councils to apply the results of research in adopting management measures that will ensure sustainable fisheries for the Nation. Enforcement is carried out to ensure compliance with regulations, and NOAA is working with state and international partners to develop policies for managing fisheries that occupy multiple geo-political zones. In addition, NOAA continues to design and implement harvest capacity reduction programs, and programs to provide fishermen with economic and technical support during stock rebuilding efforts.

Recover Protected Species

Total Request: \$69,719,000

NOAA requests \$ 69.7 million to address this strategic goal, a net increase of \$7.0 million over FY 1997. The objectives are to:

- ❖ assess the status of, and impacts to, protected species; and
- ❖ develop and implement conservation and recovery plans for depleted marine mammals and endangered and threatened species.

These objectives will be accomplished primarily through the efforts of NMFS. The request includes: \$37.8 million for status reviews and stock assessments; and \$25.8 million, an increase of \$7.4 million over 1997, for developing recovery, conservation and take reduction plans for the management of protected and depleted species. The requested increase will ensure that NMFS can address major responsibilities for responding to West Coast salmon listings and

steelhead species under the Endangered Species Act (ESA), expand recovery actions for endangered Kemp's ridley turtles, strengthen Atlantic right whale recovery efforts, and establish cooperative conservation program agreements under the ESA with additional states, including Alaska, California and Washington.

The existence of the Marine Mammal Protection Act, the Endangered Species Act and other legislation provides a clear indication of public support for strong efforts to conserve living marine resources. The desired outcome of this effort is to recover species in danger of extinction in a manner compatible with the sustainable use of marine resources. During 1996, NMFS initiated four marine mammal take reduction plans and updated fifty marine mammal stock assessments, strengthened turtle excluder device requirements and increased cooperation with Mexico to maximize hatchling production of turtles, and conducted hundreds of ESA §7 and §10 consultations. These and other accomplishments have improved the status of species while minimizing the impact of conservation measures on economic and social activities.

Sustain Healthy Coasts

Total Request: \$212,241,000

NOAA requests \$ 212.2 million to address this strategic goal, a net increase of \$18.7 million over FY 1997. The objectives are to:

- ❖ protect, conserve and restore coastal habitats and their biodiversity;
- ❖ promote clean coastal waters to sustain living marine resources and ensure safe recreation, healthy seafood and economic vitality; and
- ❖ foster well-planned and revitalized coastal communities that sustain coastal economies, are compatible with the natural environment, and minimize the risks from natural hazards.

These objectives will be accomplished primarily through the efforts of NOS, COP, OAR, NMFS and NESDIS. For NOS, the request includes \$128.4 million, an increase of \$26.5 million over 1997 for: pollution response, damage assessment and restoration needs; estuarine and coastal monitoring and assessment activities; support for estuarine reserves and marine sanctuaries; conduct of NOAA's Coastal Zone Management program; and NOAA's continuing work in interagency environmental initiatives, including the President's Clean Water Initiative and restoration of the South Florida ecosystem. For COP, \$7.7 million is needed to support regional-scale modeling and prediction of cumulative impacts of multiple stressors on habitats and living marine resources. In OAR, \$37.7 million, a decrease of \$7.1 million from 1997, is requested for research, outreach and technology development through Sea Grant, NURP and the ERLs on coastal issues such as: control and prevention of nonindigenous species;

monitoring, assessment and restoration of degraded habitat and water quality; reduction of non-point source pollution; fate of toxic chemicals; impacts of harmful algal blooms; and community preparedness for coastal hazards including hurricanes and oil spills. For NMFS, the request includes \$19.7 million for identifying essential fish habitat for fishery management plans, providing technical support for improving wetlands, and conducting permit reviews for projects affecting living marine resources including licensing of dams. Much of NMFS effort in FY 1998 will be focused on actions that contribute to the recovery of endangered West Coast salmon and steelhead species. In addition, \$4.9 million is required in NESDIS for data and information services related to improving the understanding of coastal functions and for ocean remote sensing.

Maintaining the health, productivity and biodiversity of coastal ecosystems is essential to the sustainable development of coastal economies and the future welfare of the Nation. This goal addresses the practical needs and concerns of resource managers, as well as strengthening the watershed and regional management frameworks provided by state Coastal Zone Management programs. This is an enormous challenge considering that well over half of the U.S. population lives on the 10% of land defined as coastal. Coastal concerns require integrated solutions because problems transcend state and natural boundaries. Successful management of these biologically, geographically and economically complex areas depends strongly on federal guidance and collaboration, such as with the unveiling of the final management plan for the Florida Keys National Marine Sanctuary and the conditional approval of 27 of 29 states' coastal non-point pollution programs, during 1996.

In addition to activities stressing planning, prevention and sustainable use, NOAA provides monitoring and rapid response capabilities to limit harm to ecosystems affected by human intervention. During 1996, NOAA completed the first Nationwide assessment of the spatial extent of toxic contaminants in sediments and bivalves in coastal waters, documented the magnitude and extent of contaminants in heavily contaminated Boston Harbor, and provided technical and scientific assistance to the Coast Guard at 70 oil and chemical spills.

Committee on Environment and Natural Resources

Through the National Science and Technology Council's (NSTC) Committee on Environment and Natural Resources (CENR), NOAA works with other federal agencies and non-governmental experts to design and prioritize the government's environment and natural resources research and development agenda. This interagency planning and coordination ensures the effective application of available resources.

The NSTC has identified Improving Environmental Quality as one of its six goals. Improving environmental quality requires supporting a broad and comprehensive research agenda, including: 1) observing, documenting, understanding, assessing and predicting environmental change and its consequences; 2) using natural resources in a sustainable manner; 3) understanding and preserving biodiversity; and 4) developing analytical tools that integrate social, economic and natural sciences to support policy formulation. NOAA's fisheries and protected species programs are embodied in this priority area of concern.

Agencies are expected to continue strong support of a number of ongoing interagency programs and initiatives that are priorities for FY 1998, and in which NOAA will participate. These include:

- ❖ The U.S. Global Change Research Program, with increased emphasis on consequences of changes on humans and ecosystems, particularly at regional levels;
- ❖ The North American Research Strategy for Tropospheric Ozone;
- ❖ National Environmental Monitoring and Research Initiatives;
- ❖ Natural disaster reduction (including the Hazard Information and Loss Reduction Initiative), with enhanced international cooperation in science and technology to reduce the damage to communities caused by natural disasters through improved monitoring, mitigation and response;
- ❖ Environmental technologies, with an emphasis on energy efficiency R&D and lowering carbon dioxide emissions;
- ❖ Endocrine disruptor research, focusing on understanding how low concentrations of chemicals can affect the growth and reproduction of living marine mammals;
- ❖ Social and economic aspects of environmental change.

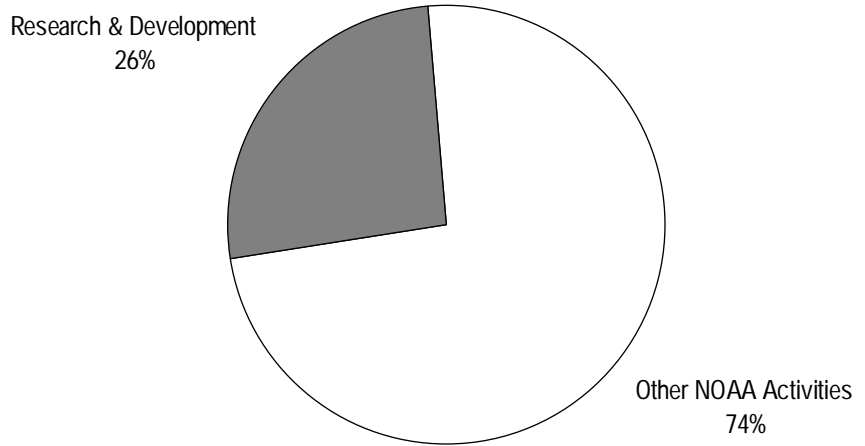
The following charts exhibit the research and development (R&D) portion of NOAA's budget request, and how NOAA's major activities support the Administration's environmental investments for FY 1998.

NOAA R&D is the systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met.

Both R&D and environmental investments are two different crosscuts of NOAA's budget, but overlap in many areas.

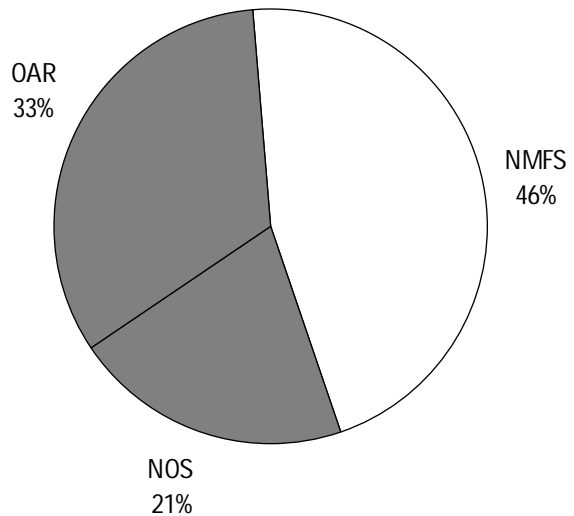
FY 1998 Research & Development and Environmental Investments

Research & Development vs. All Other Activities



Total R&D: \$524,698,000

Environmental Investments by Budget Authority



Total Environmental Investments: \$686,963,000

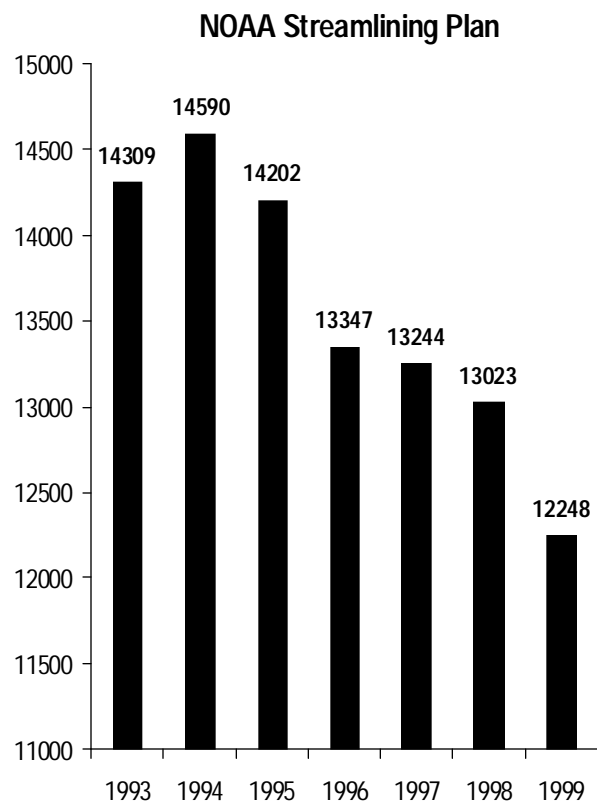
Reducing Costs and Improving Effectiveness

In an environment of tightening dollars and increasingly complex challenges, NOAA is reducing costs and improving program effectiveness. NOAA is saving money through streamlining personnel and processes, outsourcing where appropriate, and leveraging external resources and talent. NOAA holds managers accountable for results, and for using performance measures to validate progress. The highest priority continues to be to ensure that critical services are provided well.

National Performance Review, Streamlining and Reinvention

In an effort to create a government that works better and costs less, NOAA is re-inventing itself and achieving the goals outlined in the National Performance Review (NPR). Weather service modernization is reinvention in the making. Owing to the range and effectiveness of new technologies, the NWS is realigning its field structure to reduce the number of offices from over 300 to 119. A National Institute of Standards and Technology study shows that every dollar spent on weather service modernization buys eight dollars in benefits for the taxpayer. Due to this capital investment in technology, and the application of advanced scientific understanding—much of which has been developed in NOAA—the U.S. now commands the most modern and efficient weather service in the world. In addition, NOAA is reinventing the National Undersea Research Program to focus research priorities on mission needs and to provide for the competitive allocation of funds, and creating a NOAA Virtual Data Center to handle the growing demand for environmental data through a logically centralized and physically distributed system to enable customers to locate, browse, and acquire data without human intervention. A brief status of formal NOAA NPR initiatives follows:

Streamlining personnel and processes. By 1999, NOAA plans to have reduced its workforce by 14 percent from 1993 levels. This will require the elimination of 2,061 full-time equivalents (FTEs) through phased annual reductions in the NOAA Streamlining Plan (see graph below). NOAA proposes in FY 1998 to begin to transfer to the FAA the production of aeronautical charts. In FY 1998,



Note: 1993-1995, actual; 1996-1997, enacted; 1998, request; 1999, estimate.

NOAA will operate the aeronautical charting program on a fully reimbursable basis, with the entire program, including FTEs, being fully transferred to FAA in FY 1999. NOAA has simplified administrative processes, delegated authorities downward, and made progress toward implementing the Commerce Administrative Management System, which will greatly improve financial management and accountability.

Converging satellites. NOAA is working with the Department of Defense to merge civilian and defense weather satellites. NOAA and DOD recently agreed to defer the need for the first satellite in the system. A comprehensive program evaluation, which will include a thorough review of current cost estimates, program content, and acquisition status, will be conducted in the spring of 1997.

Disestablishing the NOAA Corps. The NOAA Commissioned Corps, which is a uniformed service, has been downsized significantly in the last two years, and is required to reduce to 299 officers in FY 1997. NOAA intends to disestablish the Corps, following a transition to a civilian work force. Legislation is required to effect this change, which will involve costs that currently are being developed. NPR savings are estimated at \$25 million by 1999 from continued streamlining efforts. The FY 1998 budget includes an increase of \$6 million over 1997 to fund costs associated with the proposal to disestablish the NOAA Corps.

Closing NWS field offices. The NWS expects the Secretary of Commerce to be in a position to certify “no degradation of service” in order to automate and close over 100 weather service offices in FY 1997, under the current provisions of P.L. 102-567, the law governing weather service modernization. In order to expedite closure of about 200 NWS field offices, NOAA continues to propose amending P.L. 102-567. The proposed amendments will streamline certification provisions related to the restructuring and closure of weather service offices without compromising the quality of the review. The FY 1998 budget includes \$3.1 million in savings from streamlining activities.

Privatizing specialized weather services. NOAA continues to encourage development of the private weather industry. NOAA has privatized specialized weather services including agriculture, fruit frost, fire weather for non-Federal non-wildfire land management, and specialized event forecasts. The on-going NWS modernization, resulting in new and expanded data sets, will support continuing opportunities for private companies to provide weather services.

Expanding private sector ship support. NOAA is expanding the use of private contractors and cooperative arrangements with universities for ship support, and collecting information to assess private sector interest, capability and costs for meeting requirements. NOAA has completed contracts for hydrographic surveys, and will continue this effort during FY 1997 with \$6 million in dedicated funding. The National Ocean Service plans to award contracts in

FY 1997 for surveys in the Gulf of Mexico to acquire hydrographic data for area approaches to Texas and Louisiana ports. These contracts should include a second year option. Additional smaller contracts are also planned. NOAA is also expanding the use of private sector contractors for data compilation and management services to improve the capability to prepare survey data for application to nautical charts.

Transforming seafood inspection. NOAA expects to establish a seafood inspection Performance Based Organization (PBO) during 1997. After assessing initial performance, NOAA will propose legislation to provide any necessary statutory authorities and to permit the PBO to realize a broad range of benefits and operating efficiencies.

Improving fisheries management. In cooperation with the fishing industry, NOAA will implement access controls for 25 of 39 Fishery Management Plans by the end of FY 1997, and 27 of 39 by the end of FY 1998. Under new legislative authorities in the Magnuson-Stevens Act, NOAA will work with stakeholders to establish user fees for individual fishing quotas in certain Alaskan fisheries.

Streamlining regulations. NOAA is revising and streamlining 70 parts of the Code of Federal Regulations and eliminating 400 pages. This will reduce the reporting burden on the public, and reduce by 27 percent the reporting burden hours of the National Marine Fisheries Service.

Strategic Planning and the Government Performance and Results Act

NOAA has institutionalized a strategic planning process that defines and validates its business activities, guides the development of implementation, operating and SES performance plans, and forms the basis for management decisions. The Strategic Plan provides the framework for articulating and organizing the agency's goals and work objectives. NOAA's goals for the future will enhance opportunities for our citizens, the health of the U.S. economy, the protection of our environment, and the sustainable use of our natural resources.

NOAA has made the Government Performance and Results Act (GPRA) operational following strong participation as a pilot agency. During the pilot period, NOAA was selected by the Office of Management and Budget as one of ten exemplars and was commended by GPRA review panel of the National Association of Public Administration (NAPA). Currently, NOAA is working with General Accounting Office to identify best practices for Federal agencies to follow, contributing to National Performance Review (NPR) performance measurement benchmarking studies, and assisting the Department of Commerce with developing a DOC Strategic Plan for submission to OMB by September, 1997. NOAA views the GPRA as a management tool to facilitate

decision-making. NOAA has integrated performance measures into its planning, budgeting, and management review cycles, and is designing a program evaluation process to measure agency-wide progress toward meeting goals.

Benefits of Partnerships

NOAA builds partnerships with universities; international, federal, state and local entities; industries and businesses; and groups and individuals to address common needs and leverage resources. For example, the Fishery Management Councils and the Interstate Marine Fishery Commissions are examples of innovative partnerships bringing resource managers and fishing interests to the same table to address concerns. International leadership and collaboration helps to ensure the conservation of living marine resources, especially straddling fish stocks and endangered marine species. NOAA continues to work with local communities to formulate and oversee policies and programs to address fishery resource disasters in the Pacific Northwest, the Northeast, and the Gulf of Mexico. Lastly, NOAA provides technical assistance and financial support for the development and implementation of state coastal zone management plans through a unique state-federal partnership with coastal states.

NOAA depends strongly on universities to help accomplish science objectives in its mission areas. NOAA and university scientists collaborate on severe weather, climate, and fisheries research via a network of Joint and Cooperative Institutes at universities. NOAA also funds academic researchers through competitive, peer-reviewed programs, including the Climate and Global Change Program, Coastal Ocean Program, the National Estuarine Research Reserve System, the National Sea Grant College Program, the Saltonstall-Kennedy grants program, and the Cooperative Program for Operational Meteorology Education and Training. NOAA has established a NOAA-University partnership to enhance collaboration with universities, and will host a series of workshops during 1997 with a broad range of both academic and other constituents to provide for constituent input and feedback into NOAA's strategic planning and budget formulation process.

Weather and climate services are provided to the public and industry through a unique partnership between the NWS and the private meteorological sector. The NWS provides forecasts and warnings for public safety, and the private sector promotes dissemination of forecasts and the tailoring of basic information for business uses. NOAA generally is seeking to reduce the costs of environmental data collection and to improve access to space-based and other environmental monitoring technologies by utilizing existing federal and international assets, and planning for the next generation of polar-orbiting satellites.