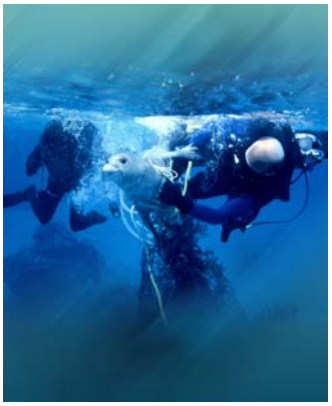
Executive Summary

NOAA, a key component of the Department of Commerce, plays a vital role in the everyday lives of our citizens through our numerous contributions to the Nation's economic and environmental health. In a period of strongly competing government priorities, the President's FY 2003 Budget Request for NOAA is $3,330.5 million in total budget authority and represents a decrease of $45.4 million below the FY 2002 Enacted level. Within this funding level, NOAA proposes essential realignments that allow for a total of $148.8 million in program increases in the following critical areas: People and Infrastructure, Improving Extreme Weather Warnings and Forecasts, Climate Services, Modernization of NOAA Fisheries, Energy, Homeland Security, and Coastal Conservation.

Funding requested in the FY 2003 President's Budget Request will allow NOAA to ensure that our vision for environmental stewardship and assessment and prediction of the Nation's resources becomes a reality and that NOAA will continue to excel in our science and services to the American people.

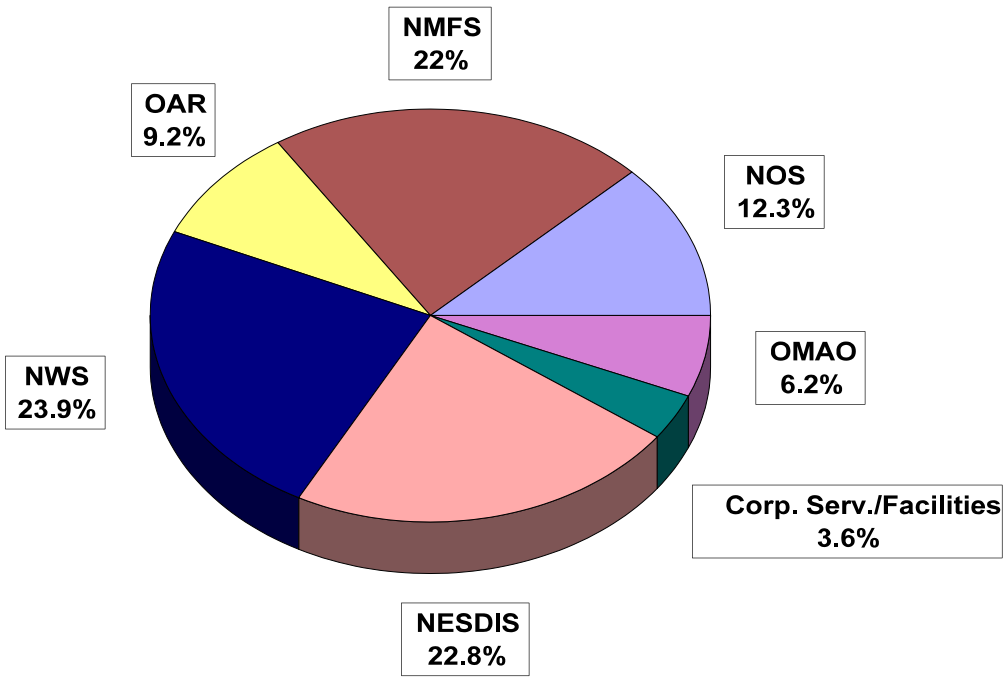
From weather forecasting to fisheries management, from safe navigation to coastal services, from remote sensing to climate research and ocean exploration, NOAA is at the forefront of many of this Nation's most critical issues. NOAA's people, products and services provide vital support to the domestic security and global competitiveness of the United States and positively impact the lives of our citizens, directly and indirectly, every single day.






NOAA's mission is to describe and predict changes in the Earth's environment and to conserve and manage the Nation's coastal and marine resources to ensure sustainable economic opportunities. NOAA implements its mission through its line and staff offices: the National Ocean Service (NOS); the National Marine Fisheries Service (NMFS); the Office of Oceanic and Atmospheric Research (OAR); the National Weather Service (NWS); the National Environmental, Satellite, Data and Information Service (NESDIS); the Office of Marine and Aviation Operations (OMAO); Facilities; and Corporate Services (CS). The following chart illustrates the distribution of NOAA's Budget Request among these offices.

FY 2003 Budget Request by Line Office





Today, the Nation and the world look to NOAA to provide timely and precise weather forecasts that protect lives and property; to manage fisheries and protected species; to promote and sustain healthy coastlines; to make America more competitive through safe navigation; to examine changes in the oceans; and to inspire and create approaches that will protect and keep our precious natural resources alive for the generations to come.

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 and radars to ships and submersibles – provides critical data and quality information needed for the safe conduct of daily life and the basic functioning of a modern society.

NOAA's products and services include short-term weather and space-weather forecasts, seasonal climate predictions, long-term global change prognoses, environmental technologies, nautical charts, marine fisheries statistics and regulations, assessments of environmental changes, hazardous materials response information, and stewardship of the Nation's ocean, coastal, and living marine resources.

NOAA's programs for FY 2003 support several key cross-cutting initiatives. These cross-cutting initiatives illustrate the degree to which NOAA's programs are inter-related. Each of the component programs within a cross-cutting initiative uniquely contributes to NOAA's ability to meet its mission.

The FY 2003 President's Budget Request supports the following cross-cutting initiatives, each of which is discussed in greater detail on the following pages:

1. People and Infrastructure

2. Improving Extreme Weather Warnings and Forecasts

3. Climate Services

4. Modernization of NOAA Fisheries (NMFS)

5. Other Key NOAA Programs:
   Energy Initiative, Homeland Security,
   Ocean Exploration, and Coastal Conservation

People and Infrastructure

Line Office/ Strategic Plan	Item	FY 2002 Enacted	Increase/ Decrease	FY 2003 Total
	People			
NOAA/All goals	Adjustments to Base Costs (all accounts)		[$129.0]	[$129.0]
NOAA/All goals	Under Secretary & Associate Offices	21.8	4.0	25.8
	Subtotal, People	**$21.8**	**$4.0**	**$25.8**
	Infrastructure			
OMAO/AST/ DECCEN	**Aircraft P-3 Maintenance**	*	**$1.5**	**$1.5**
	Facilities			
NMFS/BSF	Honolulu Facility	$3.0	$12.0	$15.0
PS/All Goals	Western Regional Center Building Maintenance	*	0.7	0.7
NWS/ASTWF	Weather Forecast Office Maintenance & Capital Improvements	4.3	3.0	7.3
NESDIS/ASTWF	Suitland Occupancy Costs	0.0	8.9	8.9
PS/All Goals	Safety in NOAA's Facilities	3.2	3.6	6.8
NMFS/BSF	Galveston Renovations	0.0	2.0	2.0
NOS/SHC	Pribilof Islands Cleanup[1]	6.0	4.0	10.0
	Subtotal, Facilities	**$16.5**	**$34.2**	**$50.7**
	Ships			
OMAO/SHC	AGATE PASS (Coastal YTT) Operations & Maint.	$0.0	$0.6	$0.6
OMAO/PSN	FAIRWEATHER Operations & Maintenance	0.0	4.6	4.6
OMAO/PSN	WHITING Repairs	0.0	3.2	3.2
OMAO/All Goals	NOAA Corps	*	0.8	0.8
	Subtotal, Ships	**$0.0**	**$9.2**	**$9.2**
PS/All goals	**Information Technology Security**	*	**$4.0**	**$4.0**
	Subtotal, Infrastructure	**$16.5**	**$48.9**	**$69.4**
	TOTAL	**$38.3**	**$52.9**	**$95.2**

* Some LO funds have been expended in FY 02, however dedicated program funds do not exist.

[1]The request does not continue a one-year grant of $2.0 million to the State of Alaska for new landfills. In FY 2003, the $2.0 million will be directed towards cleanup activities.

People and Infrastructure
$52.9 Million Increase

The People and Infrastructure cross-cutting initiative brings together the heart of what NOAA is and does. These are the underlying and interconnecting threads that hold NOAA and its programs together. Investments in NOAA's scientific and technical workforce and NOAA's facilities and equipment is essential to the agency carrying on its mission into the 21st Century. "People and Infrastructure" is about investing in the future.

People
$4.0 Million Increase

Adjustments-to-Base (ATB): NOAA requests $129.0 million in base adjustments that are critical to preserve and develop NOAA's human capital, our greatest asset.[2] In a budget totalling over $3.3 billion, this represents 4 percent of our total resources and 13.6 percent of NOAA's salaries and benefits. The demand for NOAA's scientific work products and services is expected to increase significantly in FY 2003 and beyond. This trend is evidenced by the demand for accurate seasonal forecasts, severe weather warnings for the protection of life and safety, competing interests for marine resources and the need to protect and recover endangered species. Most recently, NOAA is researching the application of deep-ocean products and their pharmaceutical applications as a result of ocean explorations. Similar increases in demand for NOAA's products and services are expected from the national energy community and other potential user communities. To ensure NOAA's mission capacity is adequate to respond to these demands, NOAA must continue to invest in its people. These products and the demand for new products rely on the creativity and ingenuity of NOAA's workforce. Adequate pay, benefits, and workspace is an essential ingredient to retaining the best and brightest NOAA Team.

This investment will ensure NOAA's programs are maintained at the current services level. Of this amount, $36.9 million is for pay raises, benefits, inflation, and rent. Failure to receive these adjustments in any given year results in program dislocations and minor cutbacks. Failure to receive these adjustments, over time, has a cumulative erosion effect that can be programmatically devastating. Consequently, these adjustments to NOAA's funding base are essential for NOAA to continue meeting core mission-related requirements and the expectations of the American public. Included in this ATB amount is $92.2 million for the proposed Civil Service Retirement System (CSRS) legislation that is a transfer from an Office of Personal Management central account to all agency accounts.

Included in this amount is a total of $36.7 million for payments mandated as an entitlement to OMAO's commissioned officers under 33 U.S.C. 8530, 33 U.S. C. 853 p, and 33 U.S.C. 87-2. Mandatory retirement payments for NOAA Corps will now be paid from the new NOAA Corps Retirement Fund account. A balance of $1,000,000 for mandatory healthcare benefits for non-Medicare-eligible retired officers now remains in the mandatory account. This shift is due to an Administrative proposal to finance on an actuarially sound basis liabilities under military retirement and survivor benefit programs for NOAA

[2]The total ATB amount of $129.0 million is not reflected in the summary chart total because the increases are spread across all NOAA programs. However, Detailed information regarding ATBs is shown in Section 2: Budget Request by Activity - Traditional Structure.

Corps. The President's Budget includes a $20 million payment from the General Fund for the unfunded liability amortized over 40 years. An increase of $5 million is requested in the ORF account for discretionary agency contributions for the accruing cost of NOAA Corps retirement benefits. Payments into the new retirement fund of $20 million (mandatory general fund payment) and $5 million (discretionary agency contributions) minus mandatory benefit payments of $16 million leave a balance of $9 million in the trust fund to cover future benefit costs.

Under Secretary and Associate Offices: NOAA requests an increase of $4.0 million over the FY 2002 Enacted level for a total of $25.8 million for the Under Secretary and Associate Offices. This increase will enable the offices to maintain the level of funding necessary to allow the Executive Offices to continue to provide executive management direction concerning NOAA policy and planning objectives; statutory and other legal requirements; Congressional relations; and public and constituent affairs. As part of the FY 2002 restructured budget, NOAA established budgetary limits by office and proposed two fundamental changes. One was to fully appropriate the Under Secretary & Associate Offices so that these budgets are not augmented by corporate costs. This will ensure clarity and continuity in the Under Secretary & Associate Offices spend plans throughout the year. As such, a total of $2.1 million is required to maintain staffing at the FY 01 Enacted levels. Second, the Office of Federally Coordinated Meteorology (OFCM) was incorporated in these plans for a total of $1.1 million. Both of these structural changes were funded by realigning appropriations from Policy Formulation and Direction and the National Weather Service (NWS) in FY 2002. The reductions were adopted but the corresponding increases were not. This increase requests restoration of this FY 2002 reduction. The remaining $1.1 million is requested to fund normal adjustments to base and support the CSRS legislative proposal.

Infrastructure
$48.9 Million Increase

NOAA's facilities and information technology infrastructure directly and immediately impact the ability of NOAA's program offices to satisfy mission demands. The condition, readiness and vulnerabilities of this infrastructure have direct consequences on human welfare, economic well being, and the advancement of the state of the sciences. To ensure mission capacity, NOAA requests infrastructure funding in the following key categories: critical systems, construction, maintenance and repair, and NOAA program support. The following programs are included in this crosscut:

Aircraft
$1.5 Million Increase

Aircraft P-3 Maintenance: NOAA requests a total of $1.5 million for NOAA aircraft operated by the Office of Marine and Aviation Operations (OMAO). This continued investment will allow OMAO to operate NOAA's fleet of 13 aircraft and provide a Standard Depot Level Maintenance (SDLM) for the Lockheed WP-3D aircraft N42RF. The SDLM is a scheduled, periodic maintenance program required every four years for the WP-3D aircraft as recommended by the manufacturer to maintain airworthiness. Without the SDLM, the aircraft will be grounded, leaving only one P-3 available for hurricane reconnaissance, research, surveillance, West Coast storm research and air chemistry research, which would negatively impact these activities.

Facilities
$34.2 Million Increase

Honolulu Facility: **NOAA requests an increase of $12.0 million over the FY 2002 Enacted level for a total of $15.0 million to continue efforts to replace the Honolulu Laboratory.** Compliance with current building code and disability standards continues to be a serious concern. This funding will enable the project to proceed with some needed work to correct several deficiencies, such as overcrowding, lack of laboratories, and inadequate or nonexistent handicapped access.

Western Regional Center Building Repair: **NOAA requests a total of $702,000 for Western Regional Center Operations and Maintenance.** These funds will be used to support operation and maintenance expenses at the Western Regional Center (WRC) in Seattle, Washington. The complex currently is falling into a state of disrepair. The WRC budget has been flat-lined for 11 consecutive years. During this period, costs have escalated for the increased needs for maintenance activities due to normal facility aging, unanticipated and unfunded requirements in environmental and other regulatory areas, and much higher than anticipated increases in energy and other utility costs.

Weather Forecast Office (WFO) Capital Improvements: **NOAA requests an increase of $3.0 million over the FY 2002 Enacted level for a total of $7.3 million for WFO Capital Improvements.** This continued investment will allow NWS to fund recurring maintenance contracts and continue to address a backlog of over $10 million in deferred maintenance repair actions. In FY 2003, the National Weather Service will begin implementation of a scheduled preventive facility maintenance program based on manufacturers' specifications and GSA/industry standards. Funds will also be dedicated to begin cyclical replacements and to address high priority backlog repair actions at 20 WFOs. The WFOs provide forecasters with modernized facilities, supporting the advanced technology systems and the provision of weather service to the public. As the WFOs continue to age, the facilities require a significant investment in recurring and cyclic maintenance, including replacement of major facility support systems such as power backup generators and uninterruptable power supplies. The request will allow NWS to protect the $250 million capital investment in modernized facilities in accordance with GSA and private industry standards.

Suitland Occupancy Costs: **NOAA requests a total of $8.9 million in FY 2003 to continue this critical infrastructure initiative to replace the NOAA Satellite Operations Facility in Suitland, Maryland.** NOAA requires the FY 2003 funding to purchase long-lead items related to the occupancy and use of the new building and to sustain the continuity of critical National satellite operations during the relocation of NOAA activities. The new NOAA Satellite Operations Facility will be fully capable of meeting NOAA critical infrastructure high technology requirements, which use more than $50 million in advanced equipment to operate $4.5 billion in satellite assets. The facility will allow for 24 hours per day, 365 days per year capability and will posses the necessary redundant electrical, mechanical, and plumbing systems required to eliminate the existing risk of mission disruption and failure and the risks to employee health and safety. NOAA's total cost to complete this project is $36.1 million, of which appropriations, not including this request, of $17.8 million have been provided.

Safety in NOAA's Facilities: **NOAA requests an increase of $3.6 million above the FY 2002 Enacted level for a total request of $6.8 million for improving the safety in NOAA's Facilities.** This continued investment will allow Facilities to pursue the elimination of numerous health and safety issues related to the poor condition of NOAA's facilities. These funds will address NOAA's current

backlog of projects, which totals more than $65 million, and will begin the establishment of a focused NOAA safety program. These funds provide for major repairs, renovations and alterations to NOAA facilities. NOAA will use these funds to identify and correct deficiencies in those facilities, to include needed major and minor repairs, renovations and alterations, and provide limited construction of "like" replacement space. Scientists' abilities to perform advanced research has been constrained in some cases by obsolete and inadequate laboratory facilities.

Galveston Renovations: NOAA requests a total of $2.0 million to continue rehabilitation of the Galveston, Texas, fishery laboratory. Funds requested will complete mechanical work required on Building 306, which will house 25 fishery scientists, technicians, and observers. This request will also partially complete worked required on Buildings 304 and 305, which will include badly needed conference and storage facilities. Building 306 is in danger of collapse and is currently not occupied. Therefore, personnel have been relocated into laboratory facilities resulting in severely reduced capacity for fisheries research and chemical analyses. Including this request, $6.3 million has been provided for this project to date.

Pribilof Islands Cleanup: NOAA requests an increase of $4.0 million over the FY 2002 Enacted level for a total of $10.0 million for the Pribilof Islands Cleanup. The request does not continue a one-year grant of $2.0 million to the State of Alaska for new landfills. In FY 2003, the $2.0 million will be directed toward cleanup activities. This continued investment will enable NOAA to continue restoration work on the Pribilof Islands. The environmental cleanup includes treating petroleum-contaminated soils, continuing actions related to the closure of the existing landfill, and remediation at various sites and the NOAA portion of an oil-drum dump site. Under P.L. 104-91 and the "Two-Party Agreement" between NOAA and the State of Alaska, NOAA is responsible for an extensive environmental cleanup on the islands in preparation for transfer of Federal lands on the islands to the local communities. The specified cleanup activities will be undertaken primarily through grants or other agreements with qualified contractors and/or local entities and residents of the Pribilof Islands.

Ships
$9.2 Million Increase

AGATE PASS (Coastal YTT) Operations & Maintenance: NOAA requests a total of $600,000 for operation and maintenance of AGATE PASS (Coastal YTT), an ex-Navy vessel recently acquired and being converted to replace FERREL. The requested funds will allow AGATE PASS to provide up to 30 additional Days-At-Sea above the vessel it is replacing. When fully outfitted, the modified vessel will be a multi-purpose vessel capable of supporting diverse coastal research needs.

FAIRWEATHER: NOAA requests $4.6 million for operations of NOAA ship FAIRWEATHER. FAIRWEATHER is currently being refurbished and will be reactivated in Spring 2003. Of the requested funds $4.1 million will allow NOAA to operate FAIRWEATHER for 130 days-at-sea (DAS) in FY 2003. These 130 DAS will be used to acquire an additional 350 square nautical miles (snm) of hydrographic data in Alaska in FY 2003. This request addresses the hydrographic survey backlog and fully supports the Update Nautical Surveys objective of the NOAA Strategic Plan Goal to Promote

Safe Navigation and the recommendations for more hydrographic surveys in the 1999 Marine Transportation System Report to Congress. The remaining $450,000 is requested for maintenance of FAIRWEATHER. After refurbishment is completed, funds are needed to cover contracts for routine maintenance and spare parts.

WHITING Repairs: NOAA requests a total of $3.2 million for repairs on the NOAA ship WHITING. This vessel is a 38-year-old survey vessel operating on the East Coast and has never had a major rehabilitation. The requested funds will provide major repairs and upgrades to obsolete systems, machinery, and mission electronics. It is anticipated that the repairs will extend the useful life of WHITING by approximately 6-10 years. It will also enhance productivity, recruitment and retention of crew, and safety of operations at sea.

NOAA Corps: NOAA requests a total of $815,000 to recruit and train 15 additional NOAA Corps officers for duty on board NOAA's platforms. Authorizing language allows up to 299 officers, and the requested funds will bring the Corps strength to 254. NOAA requires these additional officers for the operation of NOAA ships and aircraft and to fill billets (positions) within NOAA's programs. With some of the NOAA Corps officers serving in shore billets, there is a need for additional officers to relieve officers already at sea. This enhancement allows parity with other U.S. uniformed services in the amount of time officers remain on sea duty, a requirement to retain staff and remain competitive with other services. Training for these officers is also funded in this increase.

Information Technology Security
$4.0 million Increase

Information Technology (IT) Security: NOAA requests a total of $4.0 million for a comprehensive, enterprise-wide approach to IT security through a balanced approach of better planning, increased support, integrated NOAA-wide training, as well as technical solutions in hardware and software. This initiative focuses on both providing direct and immediate protection and developing the foundation technology needed so that NOAA can continuously improve service delivery through electronic commerce. While all IT programs require built-in IT security, many measures are only effective if done NOAA-wide, and many measures can be implemented one time, NOAA-wide, saving programs the costs and resources of duplicating security functions. NOAA will spend approximately $17 million on basic IT security programs in FY 2003, which will be handled through internal funding measures.

Improving Extreme Weather Warnings and Forecasts

Line Office/ Strategic Plan	Item	FY 2002 Enacted	Increase/ Decrease	FY 2003 Total
	OAR			
OAR/ASTWF	Tornado Severe Storm Research	*	$1.0	$1.0
OAR/ASTWF	U.S. Weather Research Program	2.8	1.0	3.8

OAR/ASTWF	Weather & Air Quality Research Labs	43.9	4.2	48.1
	Subtotal, OAR	**$46.7**	**$6.2**	**$52.9**
	NWS			
NWS/ASTWF	Advanced Hydrological Prediction Service	$1.5	$4.7	$6.2
NWS/ASTWF	Weather & Climate Supercomputing	15.0	6.2	21.2
NWS/ASTWF	Radiosonde Replacement	5.0	2.0	7.0
NWS/ASTWF	Aviation Weather	0.0	2.5	2.5
NWS/ASTWF	Huntsville Weather Forecast Office	0.0	1.4	1.4
	Subtotal, NWS	**$21.5**	**$16.8**	**$38.3**
	NESDIS			
NESDIS/ASTWF	Polar Orbiting Systems	$295.9	$64.3	$360.2
NESDIS/ASTWF	Polar K-N'	[138.5]	[(15.6)]	[122.9]
NESDIS/ASTWF	National Polar-orbiting Operational Earth Satellite System (NPOESS)	[157.4]	[79.9]	[237.3]
NESDIS/ASTWF	Geostationary Systems	262.5	(35.1)	227.4
NESDIS/DECCEN	EOS Data Archive & Access System Enhancement	*	3.0	3.0
NESDIS/ASTWF	Joint Center for Data Assimilation	0.8	2.6	3.4
NESDIS/ASTWF	Coastal Ocean Remote Sensing	0.0	6.0	6.0
NESDIS/ASTWF	Satellite CDA Facility	3.6	1.0	4.6
NESDIS/ASTWF	Satellite Command & Control	30.4	4.4	34.8
NESDIS/ASTWF	Product Process & Distribution	21.0	6.7	27.7
	Subtotal, NESDIS	**$614.2**	**$52.9**	**$667.1**
	OMAO			
OMAO/ASTWF	G-IV Instrumentation	0.0	8.4	8.4
	Subtotal, OMAO	**0.0**	**8.4**	**8.4**
	TOTAL	**$682.4**	**$84.3**	**$766.7**

* Some LO funds have been expended in FY 02, however dedicated program funds do not exist.

Improving Extreme Weather Warnings and Forecasts
$84.3 Million Increase

Critical to meeting our 21st Century mission is the continuity of NOAA's Satellites and Severe Weather Forecasts. In order to ensure our success, the FY 2003 President's Budget Request includes an increase request of $94.6 million for a total of $798.6 million. The programs that comprise this initiative are summarized in the preceding table and the program descriptions below.

OAR
$6.2 Million Increase

Tornado Severe Storm Research: NOAA requests a total of $1.0 million to develop new technologies for forecasting and detecting tornadoes and other forms of severe weather and to disseminate this information to emergency managers, the media, and the general public for appropriate action. This initiative consists primarily of the construction and research support for a phased array radar test-bed at the National Severe Storms Laboratory in Norman, OK. Congress established a joint Research & Development program for NOAA, the Department of Defense (DOD) and the Federal Aviation Administration (FAA) to investigate the feasibility and benefits of using these military phased array radars for improving severe weather forecast and warning systems. U.S. Navy SPY-1 Phased Array Radar (PAR) technology holds considerable promise for making significant improvements to the existing WSR-88D system. Phased array radar has the potential to significantly extend lead times for tornadoes and other forms of severe and hazardous weather. Faster scan rates can reduce the time it takes to make a complete Doppler radar observation from six to nearly one minute. Coupled with advanced decision support systems, in the future, tornado lead times could be almost doubled from 10 to 22 minutes.

US Weather Research Program (USWRP): NOAA requests an increase of $1.0 million over the FY 2002 Enacted level for a total of $3.8 million to support the transition of research and development into operations in order to reach the USWRP initial goals of improving forecasts of inland heavy precipitation associated with landfalling hurricanes. The increase will be used to address the improvement of the forecasts of heavy and, often, flood-producing rains associated with hurricanes and tropical storms as they move inland. To address this goal, initial investments will be made in improving atmospheric boundary layer observations along the coast and inland, regional and fine scale modeling, and model test and evaluation.

Weather & Air Quality Research Labs: NOAA is requesting an increase of $4.2 million over the FY 2002 Enacted level for a total of $48.1 million to recapitalize the 10 laboratories that conduct weather and air quality research, which includes $0.4 million for ongoing operational scientific activities to continue operation of the Wind Profiler Network and NOAA's Space Weather Program. The Wind Profiler Network provides the NWS wind, temperature, and other surface meteorological measurements for use in tailoring weather forecast model guidance to local conditions for issuance of forecasts, watches and warnings of severe weather. This funding will go toward replacement parts and computer network maintenance to keep the Wind Profiler Network operational. NOAA's Space Environment Center (SEC) is solely responsible for data assimilation and forecasting for NOAA's Space Weather program. The Center is responsible for the quality and quantity of space-weather observations from NOAA and NASA satellites, and ingesting, processing, verifying, storing, and disseminating critical data from other agencies through its operational system. This funding will allow the SEC to improve its forecasts by incorporating the new data from NOAA and NASA satellites into its forecasts.

NWS
$16.8 Million Increase

Advanced Hydrological Prediction Service (AHPS): NOAA requests an increase of

$4.7M over the FY2002 Enacted level for a total of $6.2M to accelerate nationwide implementation of improved flood and river forecasts services in the Northeast, Middle Atlantic, and Southeast, including the states of: New Hampshire, Vermont, Virginia, North Carolina, and South Carolina. As implemented, AHPS will: 1) produce new information with better predictions of river height and flood potential to reduce loss of life and property; 2) deliver high resolution, visually oriented products to provide partners and customers with valuable information for life decisions; 3) refresh aging hydrologic forecasting infrastructure to support rapid infusion of scientific advances; and 4) leverage NOAA's investments in observational systems and atmospheric models to enhance accuracy and resolution of river forecasts. AHPS recently demonstrated improvements in flood forecasting for the Red River of the North. The mid-March, 2001 AHPS 90 day outlook showed an 85% chance Fargo, ND would experience major flooding. Three weeks later the Red River was at 20 feet above flood stage in Fargo.

Weather & Climate Supercomputing: NOAA requests an increase of $6.2 million over the FY 2002 Enacted level for a total of $21.2 million to continue operations and maintenance of the current NWS IBM SP system (Class VIII) and to transition the next generation weather and climate supercomputing system into operations (system to be acquired and installed during FY 2002). The NWS supercomputer is the foundation for all NWS weather and climate forecasts. Operational transition of the next generation supercomputer will enable the NWS to improve the resolution and forecast accuracy of the following prediction models by FY 2004: global model from 80Km to 52Km; regional model from 12Km to 10Km; and the hurricane model from 18Km to 12Km. In addition, this investment will enable the NWS to upgrade its operational climate forecasting model to incorporate ocean temperature and current influences critical to predicting weaker El Niño and La Niña events and other climate oscillations.

Radiosonde Replacement: NOAA requests an increase of $2.0 million over the FY 2002 Enacted level for a total of $7.0 million to continue the replacement and modernization of the upper air radiosonde network. The radiosonde network provides critical upper air observations for NWS weather forecasters and serves as the principle data source for all weather forecast models. The current network is obsolete and nearing collapse, risking widespread loss of data within the next two to three years. During FY03, the NWS will accelerate system deployment of radiosonde telemetry units with 21 sites vs. 12 sites (at $5.0 million level); and begin use of Global Positioning System (GPS) technology radiosondes at sites as they become operational. This represents 21% of the total inventory of radiosonde units that need replacement by FY 06.

Aviation Weather: NOAA requests a total of $2.5 million to initiate a 7-year plan to help improve U.S. aviation safety and economic efficiencies by providing state-of-the-art weather observation and forecast products responsive to aviation user needs. Weather accounts for over 70% of all air traffic delays which results in greater expenditures by both airline customers and the airlines. In addition, an average of 200 general aviation pilot fatalities per year are caused by weather-related accidents across the U.S. This initiative will provide a means for the NWS to improve its aviation weather forecast services through 3 major components which include: 1) increasing the number and quality of aviation weather observations; 2) transitioning successful applied research efforts to operational products; and 3) developing and implementing new training programs for forecasters, pilots, and controllers. This initiative has the goal of a 10% reduction in National Airspace System weather-related air traffic delays, which would save $600 million annually in potential economic losses, and a 25% reduction in general aviation weather related fatalities, or 50 lives annually.

Local Warnings and Forecast Base - Huntsville, AL Weather Forecast Office

(WFO): NOAA requests a total of $1.4 million to pay for recurring operations and maintenance costs at the new Huntsville, AL Weather Forecast Office. The Huntsville WFO will be established in FY 2002 at the University of Alabama at Huntsville using $3.0 million in appropriated funds provided in FY 2002. The $1.4 million requested will provide for NWS employee salaries, facilities rent and maintenance, and operational equipment and supplies; all necessary costs to provide and operate and maintain weather forecast and warning services in the Huntsville area.

NESDIS
$52.9 Million Increase

Polar Orbiting Systems: Polar Orbiting Systems is comprised of NOAA Polar K-N and the National Polar Operational Earth Satellite System. The net increase requested is $64.3 million and described as follows:

NOAA Polar K-N': NOAA requests a decrease of $15.6 million from the FY 2002 Enacted level for a total of $122.9 million for the NOAA Polar K-N' to fund the continuation of the production and launch of this series of satellites. NOAA will use these funds to continue the procurement of the NOAA M through N' satellites, instruments, launch services, and ground systems. This request also provides funding for upgrading and replacing aging and deteriorating ground systems to allow for the continuation of operations for the Polar K-N' series through the end of its lifetime. The Polar K-N program is completing major procurement items and therefore does not need to continue the funding levels of previous years.

National Polar-orbiting Operational Environmental Satellite System (NPOESS): NOAA requests an increase of $79.9 million over the FY 2002 Enacted level for a total request of $237.3 million for the continuation of the tri-agency NPOESS program that will replace the NOAA POES program after completion of the current NOAA K-N' series of satellites. The NOAA request represents the NOAA share of the converged NOAA/DoD/NASA program. In FY 2003, funds will be required to continue the development and production of the NPOESS instruments, including the Visible Infrared Image Radiometer, the Conical Microwave Imager Sounder, the Cross-track Infrared Sounder, the Ozone, Mapping and Profiler Suite, the Global Positioning System Occultation Sensor, and the Space Environmental Sensing Suite. The continued development of these instruments is critical for their timely and cost effective delivery to replace both the Defense Meteorological Satellite Program (DMSP) and the NOAA POES spacecraft when needed.

FY 2003 funds are also required to fund the first full year of the spacecraft Engineering and Manufacturing Development phase of the NPOESS program, including total system architecture trades and design of the four major NPOESS segments; Space; Interfaced Data Processor; Command, Control, and Communications; and Launch Support. Funding will also support site surveys, environmental mitigation studies, and initiating construction of antenna systems at high latitude mission recovery sites to support data acquisition functions for the NPOESS Preparatory Project (NPP). The NPP ground system must be in place to support the FY 2005 launch of the NPP spacecraft, which is a major element of the risk reduction necessary for the successful initiation of the operational use of NPOESS, with the first NPOESS satellite available for launch in FY 2008 when the last of the POES satellites is launched.

Geostationary Operational Environmental Satellite (GOES): NOAA requests a decrease of $35.1 million from the FY 2002 Enacted level for a total request of $227.4 million to support continued post launch requirements for GOES I-M; the continued procurement of the GOES-N series satellites, instruments, ground systems, and systems support necessary to maintain continuity of Geostationary operations; and planning and development for the GOES-R series of satellites and instruments. This decrease represents a program change resulting from the successful launch of GOES M, and the continued success of the GOES I-M series.

Earth Observing System Data Archive & Access System Enhancement: NOAA requests a total of $3.0 million to ensure that NOAA possesses the ability to fully utilize the vast amounts of new satellite-based environmental data becoming available, process and distribute that data in a variety of formats, provide stewardship for the data, and make the data accessible to users in a variety of economic, research, government, and public sectors. NOAA will use the requested funds to procure additional media storage hardware and telecommunications equipment that NOAA requires to store the environmental data generated by the 100-times increase in data volume per satellite that has already begun and will only increase in future years.

Joint Center for Data Assimilation: NOAA requests an increase of $2.6 million over the FY 2002 Enacted level for a total of $3.4 million for the Joint Center for Satellite Data Assimilation. NWS, the NOAA Office of Atmospheric Research, and NASA also provide funding as partners in this coordinated national effort to more fully realize the potential of the vast quantities of new satellite data that are becoming available.

In the next few years, there will be an explosive growth in the number of satellite instruments capable of further improving Numerical Weather Prediction (NWP) accuracy. Additionally, the development of new and powerful mathematical techniques to assimilate the data into NWP models provides further opportunities to improve the accuracy and extend the time range of weather and climate forecasts. The prime benefit of the Joint Center for Satellite Data Assimilation will be improved weather forecasts and warnings, resulting in reduced losses of life and property. NOAA will also realize productivity increases by reducing the average time for operational implementation of data from new satellite technology from two years to one year. With average satellite lifetimes of five years, this represents a 20 percent productivity increase per satellite.

Coastal Ocean Remote Sensing: NOAA requests a total of $6.0 million to develop and deploy a prototype high-resolution imaging sensor, to meet long-standing NOAA requirements. In FY 2003, this initiative will allow NOAA to work with NASA to develop conceptual design and capabilities of this instrument, which will continuously monitor coastal ocean areas for harmful algae blooms, coral reef deterioration, pollution changes, fisheries management, and navigation. This instrument will provide continuous, high resolution monitoring in unprecedented detail of terrestrial features such as vegetation changes, flooding, wild fires, volcanic eruptions, and ash cloud transport. Additionally, this initiative will support joint NOAA/NASA scientific research required for the development of real-time products in support of coastal health and management. The overall outcome of this program will be significant economic benefits to the tourist industry, hotel and motel suppliers, commercial fisheries, and local governments.

Satellite Command & Data Acquisition (CDA) Facility: NOAA requests an increase of $1.0 million over the FY 2002 Enacted level for a total request of $4.6 million in FY 2003 PAC Construction account to continue the Satellite CDA Infrastructure program. The Satellite CDA Infrastructure program is critical to ensure the current 99.9 percent data availability from NESDIS satellite systems. Improved facilities reduce the risk of outages and service disruptions caused by failure of the supporting buildings, facilities, and infrastructure. This program minimizes the risk of spacecraft loss and data loss and provides NOAA with the capability, redundancy, and robustness within its satellite command and data acquisition system infrastructure to continue supporting worldwide requirements for critical operational satellite data and services. Not fully funding these requirements threatens the operating integrity of the CDA Stations and raises the risk to civilian and military missions supported by NOAA and increases the risk of failure of the CDA Station operating systems at a time when events in the world may pose increased risk of loss of life and property.

Satellite Command and Control: NOAA requests an increase of $4.4 million above the FY 2002 Enacted level for a total of $34.8 million in FY 2003. This includes a program increase of $2.5 million for Satellite Command and Control. This investment supports the operations of the NESDIS satellite systems, the ingesting and processing of satellite data, and the development of new product applications required for continuity of operations. NESDIS provides satellite command and control services on a 24 hours per day, 365 days per year schedule. Two critical components of this initiative are:

Protecting Critical Satellite Control Facilities: NOAA requests a program increase of $0.3 million to enhance security at the Fairbanks, Alaska and Wallops, Virginia satellite Command and Data Acquisition ground stations. NOAA will use the requested funds to upgrade and expand security lighting along the access road, around buildings and antennas, and along exterior cableways. NOAA will also convert to energy efficient light heads, install time-of-day, prevailing light level, and motion activated controls to minimize energy use and maximize utility.

Satellite Command and Data Acquisition Station Operations: NOAA requests a program increase of $2.2 million in the NESDIS ORF account to provide funding for the operation of the Satellite Command and Data Acquisition (CDA) in Fairbanks, Alaska. NOAA will use the FY 2003 funds to obtain the appropriate technical, management, and administrative contractor support to operate and maintain the acquisition and throughput of data from NOAA and DoD polar-orbiting satellites to the NOAA Satellite Operations Control Center in Suitland, Maryland and National Weather Centers.

Product Processing and Distribution: NOAA requests an increase of $6.7 million above the FY 2002 Enacted level for a total request of $27.7 million. This includes a program increase of $5.1 million for the Product Processing and Distribution program. This continued investment will be used to process and analyze data from NOAA, DoD, and other Earth-observing satellites; supply data, interpretations, and consulting services to users; and operate and maintain the Search and Rescue mission control center. This includes supplying satellite data that makes up approximately 85 percent of the data used in NWS numerical weather prediction models. NOAA will use the requested program increase to support the following two mission critical functions:

Reducing the Risk to Continuity of Critical Operations: NOAA requests a program increase of $3.1 million to reduce the risk of losing the continuity of critical satellite product processing and distribution capabilities. NOAA will use the requested funds to expand on-site maintenance and staffing levels to ensure that all critical functions are performed, providing vital and timely information to customers and operations during times of peak workload. NOAA will also develop and update documentation for all critical systems and operations, review security procedures for all ground processing system components, and initiate improved operating procedures and training.

Improved Support for Weather and Hazards: NOAA requests a program increase of $2.0 million to improve weather and hazards product processing and distribution. As a part of this initiative, NOAA will automate wild fire detection algorithms to improve timely delivery of information to customers, integrate the information into geographic information systems for detailed location information, and integrate new fire detection sensors from non-NOAA satellites.

OMAO
$8.4 Million Increase

G-IV Instrumentation: NOAA requests a total of $8.4 million to begin upgrading instrumentation aboard the G-IV aircraft. Improvements in NOAA's Gulfstream IV aircraft's remote-sensing systems will enhance NOAA's hurricane-reconnaissance capability. New technology will use remote sensors to develop 3-dimensional profiles of hurricanes from 45,000 feet down to the surface and would provide forecasters with unprecedented real-time information on size and intensity. In addition, radar-composite maps will provide critical rainfall information that is crucial to forecasters and to the emergency-management community for preparedness and evacuations.

Climate Services+

Line Office/ Strategic Plan	Item	FY 2002 Enacted	Increase/ Decrease	FY 2003 Total
OAR/DECCEN	Climate Observations and Services	$23.6	$18.0	$41.6
OAR/DECCEN	Arctic Research (SEARCH)	*	2.0	2.0
OMAO/DECCEN	University National Oceanographic Laboratory System (UNOLS)	*	2.5	2.5
OAR/DECCEN	Climate Monitoring and Ocean Observations	49.2	5.4	54.6
NESDIS/SI	Archive, Access & Assessment	28.3	8.3	36.6
	Subtotal, Climate Services	**$101.1**	**$36.2**	**$137.3**
	TOTAL	**$101.1**	**$36.2**	**$137.3**

+ This chart reflects services and observation products and is a subset of the approximate $240 million investment NOAA spends on climate per year.

* Some LO funds have been expended in FY 02, however dedicated program funds do not exist.

Climate Services
$36.2 Million Increase

The Challenge

From the storms of next week to the drought of next season to the potential human-induced climate change over the coming century, issues of climate variability and change will continue to be a major issue for the Nation. Whether responding to the ongoing drought in the Pacific Northwest and its effect on power generation and endangered salmon, or in determining how much atmospheric carbon dioxide is taken up by the North American biosphere, these questions influence users from the Western water manager to the shapers of national policy. The challenge is to extend the research successes, maintain the observational backbone, and improve the capability to provide useful information services to our customers. Improved climate predictions will enable resource managers in climate sensitive sectors such as agriculture, water management, and energy supply to alter strategies and reduce economic vulnerability. Building on the understanding of the Earth's climate system that has resulted from the Nation's strong scientific research and numerical modeling programs, NOAA's Climate Observations and Services Program will begin the transition of research data, observing systems and understanding from experiments to applications, and from basic science to practical products.

NOAA's Role

NOAA maintains a balanced program of focused research, large-scale observational programs, modeling on seasonal-centennial time scales, and data management. In addition to its responsibilities in weather prediction, NOAA has pioneered in the research and operational prediction of climate variability associated with the El Niño Southern Oscillation (ENSO). With agency and international partners, NOAA has been a leader in the assessments of climate change, stratospheric ozone depletion, and the global carbon cycle. NOAA scientists have been leaders internationally in the Intergovernmental Panel on Climate Change (IPCC). It maintains national coordination through participation in the U.S. Global Change Research Program.

The agency-wide Climate Observations and Services activity represents a partnership that allows NOAA to facilitate the transition of research observing and data systems and knowledge into operational systems and products. During recent years, there has been a growing demand from emergency managers, the private sector, the research community, decision-makers in the United States and international governmental agencies and the general public to provide timely data and information about climate variability, climate change and trends in extreme weather events. The economic and social need for continuous, reliable climate data and longer-range climate forecasts has been clearly demonstrated. NOAA's Climate Services Initiative responds to these needs. The following efforts will be supported by this initiative:

Climate Change Research Initiative: NOAA requests a total of $18.0 million for the

Climate Change Research Initiative.

Background: In his June 11 speech in the White House Rose Garden, President Bush announced the establishment of the U.S. Climate Change Research Initiative (CCRI). Among the components of the CCI are commitments to study areas of scientific uncertainty and to identify priority areas where investments can make a difference. In line with recent recommendations by the National Academy of Sciences, the CCRI promotes a vision focused on the effective use of scientific knowledge in policy and management decisions, and continual evaluation of management strategies and choices. The following sections describe NOAA's request to address key priorities of the CCRI.

- **Climate Modeling Center: NOAA requests $5.0 million to establish a climate modeling center within the Geophysical Fluid Dynamics Laboratory (GFDL) at Princeton, New Jersey, which will focus on model product generation for research, assessment and policy applications as its principal activity**. GFDL has played a central role in climate research, pioneering stratospheric modeling, seasonal forecasting, ocean modeling and data assimilation, and hurricane modeling. This core research capability will be enhanced to enable product generation and policy related research.

- **Global Climate Atmospheric Observing System: NOAA requests $4.0 million to work with other developed countries to reestablish the benchmark upper-air network, emphasizing data sparse areas, and place new Global Atmosphere Watch stations in priority sites to measure pollutant emissions, aerosols, and ozone, in specific regions.**

- **Global Ocean Observing System: NOAA requests $4.0 million to work towards the establishment of an ocean observing system that can accurately document climate scale changes in ocean heat, carbon, and sea level changes.**

- **Aerosols-Climate Interactions: NOAA requests $2.0 million to contribute to the interagency National Aerosol-Climate Interactions Program (joint with NASA, DOE, NSF) currently under development.** Specifically, NOAA will establish new and augment existing in-situ monitoring sites and conduct focused field campaigns to establish aerosol chemical and radiative properties. In collaboration with the NPOESS Integrated Program Office (IPO), NOAA will advance the development of the NPOESS planned satellite measurement capabilities.

- **Carbon Monitoring: NOAA requests $2.0 million to augment carbon monitoring capabilities in North America as well as observations of globally relevant parameters in key under-sampled oceanic and continental regions around the globe, selected to reduce high uncertainty in current flux estimates.**

- **Regional Integrated Science Assessments Program (RISA): NOAA requests $1.0 million for the Regional Science Integrated Assessments Program.** Working with the National Science Foundation (NSF), NOAA will augment its research capability in assessing climate change impacts vulnerability by utilizing the research on "decision making in the face of uncertainties" in the framework of the RSIA programs, e.g. Pacific Northwest.

Arctic Research: NOAA requests a total of $2.0 million in support of the Study of Environmental Arctic Change (SEARCH) to improve monitoring of the elements of the Arctic environment. NOAA's SEARCH activities are part of a coordinated interagency and international program, begun in response to evidence of an alarming rate of environmental change occurring in the Arctic. This initiative consists of improving detection of environmental Arctic change at the air/ice/ocean interface, improving detection of environmental Arctic change in the lower and upper atmosphere, and analysis of Arctic measurements made by NOAA satellites. The SEARCH initiative will substantially increase understanding of long-term trends in temperature, precipitation and storminess across the U.S., with potential improvements in forecasting and planning for energy needs, growth seasons, hazardous storm seasons and water resources. Improved detection of change at the Arctic air/ice/ocean interface will provide oceanographic information critical to management of high latitude fisheries, marine mammals and other protected species.

University-National Oceanographic Laboratory System (UNOLS): NOAA requests a total of $2.5 million to outsource with UNOLS and other sources for ships in the Pacific to support long-time series research for Fisheries-Oceanographic Coordination Investigations (FOCI), VENTS, and Oregon/Washington Groundfish Habitat and maintenance of the Tsunami moorings in the Gulf of Alaska and Pacific Ocean. The increase will enable NOAA to continue to meet research requirements in the Pacific Ocean, Gulf of Alaska, and Bering Sea utilizing time aboard UNOLS and other vessels. This will provide 125 operating days and allow the NOAA ship RONALD H. BROWN to meet NOAA research needs in the Atlantic Ocean in FY 2003.

Climate Monitoring and Ocean Observations: NOAA requests an increase of $5.4 million over the FY 2002 Enacted level for a total of $54.6 million to recapitalize the 10 laboratories that conduct climate research, which includes $0.6 million for purchasing equipment and improving the scientific activities that contribute to the long-term observing systems that directly support the President's climate initiative. These observing systems are the Global Ocean Observing System (GOOS); the Global Air Sampling Network and a gas network at four baseline observatories, and at Niwot Ridge, CO; and the Tropical Atmosphere Ocean (TAO) array which is the cornerstone of the El Niño/Southern Oscillation (ENSO) Observing System and other ocean observing systems.

Archive, Access, and Assessment: NOAA requests an increase of $8.3 million above the FY 2002 Enacted level for a total request of $36.6 million for the Archive, Access, and Assessment program. This includes a program increase of $5.4 million for the following activities:

Regional Climate Services & Assessments: NOAA requests $1.8 million to develop an improved climate data and information delivery service that will be nationally coordinated, but regionally distributed, eventually building toward services delivered nationally, regionally, and

locally through state programs. The requested funding will allow NOAA to improve national, regional and state linkages and make national, regional, state, and local weather and climate observing systems and data bases accessible in a timely manner

Next Generation Environmental Information: NOAA requests $1.6 million to develop a new generation of World Wide Web accessible climate information and statistics for primary use by the energy sector of our economy. This funding will allow NOAA to overhaul the current methods and procedures for computing climate information such as heating and cooling degree days, heat indices, wind chills, freezing degree days, and other related statistics with the goal of making this information more appropriate and timely for business decision-making and planning purposes.

World Ocean Database: NOAA requests an increase of $1.3 million to update the World Ocean Database to include new sources of data and to put in place the analytical and data management infrastructure needed to transition this activity from the current research mode to a sustained, operational service mode. The funding will also provide for the systematic maintenance and needed updates to the database to include emerging international sources of new data.

Extending America's Climate Record - Paleoclimatology: NOAA requests $500,000 for the NOAA Paleoclimatology program. NOAA will use the funds to gather key paleoclimatic records to fill gaps; reconstruct climate records during pre-instrumental periods; and produce blended data sets that integrate instrumental, historical, and paleoclimatic data into a holistic climate record.

Solar X-ray Imager Archive: NOAA requests $200,000 to establish a long-term Solar X-ray Imager (SXI) archive. NOAA will use the SXI archive to derive new products to help reduce the effects of extreme space weather events on telecommunications satellites, on electrical power services, and on health risks to astronauts.

Modernization of NOAA Fisheries

Line Office/ Strategic Plan	Item	FY 2002 Enacted	Increase/ Decrease	FY 2003 Total
	Science			
OMAO/BSF	Fisheries Research Vessel	$5.4	$45.5	$50.9
NMFS/BSF	Modernize Annual Stock Assessments	2.0	9.9	11.9
NMFS/BSF	Sea Turtle Research	4.5	2.0	6.5
NMFS/BSF	Columbia River Biological Opinion Implementation	*	12.0	12.0
NMFS/BSF	Recovery of Endangered Large Whales	*	1.0	1.0
NMFS/BSF	Socioeconomics	2.5	1.5	4.0
NMFS/BSF	National Observer Program	14.1	2.9	17.0
	Subtotal, Science	**$28.5**	**$74.8**	**$103.3**
	Management			
NMFS/BSF	NMFS National Environmental Policy Act (NEPA)	5.0	3.0	8.0
NMFS/BSF	Regional Fishery Management Councils	14.1	1.9	16.0

NMFS/BSF	Statutory and Regulatory Requirements	*	1.5	1.5
	Subtotal, Management	**$19.1**	**$6.4**	**$25.5**
	Enforcement			
NMFS/BSF	Enforcement	39.3	4.3	43.6
NMFS/BSF	Vessel Management System	2.0	5.4	7.4
	Subtotal, Enforcement	**$41.3**	**$9.7**	**$51.0**
	TOTAL	**$88.9**	**$90.9**	**$179.8**

* Some LO funds have been expended in FY 02, however dedicated program funds do not exist.

Modernization of NOAA Fisheries
$90.9 Million Increase

The FY 2003 President's Budget Request for the National Marine Fisheries Service (NMFS), referred to as "NOAA Fisheries," follows Congressionally enacted levels in FY 2002 and invests in core programs needed for NOAA to meet its mission to manage fisheries, rebuild stocks, and protect endangered species such as sea turtles and whales. NOAA Fisheries modernization funds will be allocated within NMFS to ensure that existing statutory and regulatory requirements are met for fisheries and protected species management programs (including the Magnuson-Stevens Act, National Environmental Protection Act, Endangered Species Act, Marine Mammal Protection Act, and other statutory requirements). In FY 2003, there are sufficient funds for NMFS to meet its statutory and regulatory requirements.

This budget request continues NOAA's effort to modernize NOAA's Fisheries. The Modernization of NOAA Fisheries Initiative encompasses a long-term commitment to improve the NMFS structure, processes, and business approaches to meet its mission of sustaining the Nation's living marine resources and their habitat. In addition to this budget request, the Administration will propose that any reauthorization of the Magnuson-Stevens Fisheries Conservation and Management Act include authority for fishing quota systems within regional fisheries, including transferable quotas, where appropriate. This initiative focuses on improving NMFS' science, management, and enforcement programs and beginning to rebuild its aging infrastructure. These improvements will result in measurable progress in the biological and economic sustainability of fisheries and protected resources. In order to ensure the viability of these modernization efforts, the FY 2003 President's Budget Request includes the following program investments:

Science
$74.8 Million Increase

Fisheries Research Vessel: NOAA requests an increase of $45.5 million over FY 2002 Enacted level for a total of $50.9 million for NOAA's second Fisheries Research Vessel (FRV2). This vessel will replace the 39-year old ALBATROSS IV in the North Atlantic. Costs of maintaining the aging ALBATROSS IV for the five years needed to construct the replacement FRV and to allow side-by-side missions for calibration purposes are escalating. Further delays in the startup of construction will jeopardize the continuity of a time-series database required to manage Northeast fisheries. Moreover, replacing the aging fleet is required to provide research platforms capable of meeting increasingly sophisticated data requirements for marine resource management.

Modernize Annual Stock Assessments: NOAA requests an increase of $9.9 million over the FY 2002 Enacted level for a total of $11.9 million for modernizing annual stock assessments. Funding will allow NMFS to conform to new national stock assessment standards of data quality, assessment frequency, and advanced modeling. An increase of $5.1 million is requested to provide for the recruitment and training of stock assessment biologists and supporting staff to produce annual stock assessments that meet the new standard for Federally managed stocks. The request would also add an increment of 260 Fisheries vessel/charter days at sea toward the balance of 3,000 days identified in the NOAA Fisheries Data Acquisition Plan at a cost of $2.4 million. The initiative includes $0.9 million for advanced sampling technologies. This element targets improvements in and innovative uses of existing technologies, in including the application of new and advanced sampling systems and

approaches. Also included in this request is $1.5 million to enhance fisheries oceanography studies, principally, the Fisheries and the Environment program (FATE).

Endangered Species Act Sea Turtle Research: NOAA requests an increase of $2.0 million over the FY 2002 Enacted level for a total of $6.5 million to continue the recovery of highly endangered sea turtles. Of the $2.0 million increase, $1.4 million is in the Protected Resources Science and Technology line to provide the necessary research to recover highly endangered marine turtles. This program is designed to help us to collect information on biology and habitats and share that information with other range countries. By comparing this information with fisheries efforts, we can also better understand the impact of fisheries on these sea turtle populations. The remaining balance of $600,000 is requested as part of the Conservation and Management base line item and supports implementation of identified management strategies to reverse population declines, implementation of multi-lateral international agreements, and builds capacity through domestic and international educational and outreach programs.

Columbia River Biological Opinion (BiOp) Implementation: NOAA requests an increase of $12.0 million to provide for the research, monitoring, and evaluation (RM&E) necessary to continue implementation measures of measures included in the Columbia River Biological Opinion. The RM&E program will provide the scientific information necessary to assess whether BiOp performance measures are being achieved at 2003, 2005, and 2008 check-ins. This funding also provides for the research needed to address key uncertainties identified in the BiOp in the areas of estuary and near-shore ocean survival, delayed effects related to dam passage, and the effects of hatchery programs on the productivity of naturally spawning fish. Funding for this program is requested under the Protected Resources, Science and Technology ($10.0 million) and Conservation and Management ($2.0 million) line items.

Recovery of Endangered Large Whales: NOAA requests an increase of $1.0 million to provide resources to scientifically determine whether two key endangered whales - humpbacks and bowheads - have recovered and are candidates for delisting. This information will enable NOAA to detect changes in the status of large whales and prevent any long-term irreversible damage to these populations.

Socioeconomics: NOAA requests an increase of $1.5 million over the FY 2002 Enacted level for a total of $4.0 million for fisheries socioeconomics programs. Funding will support the on-going development of a multi-year comprehensive social sciences program to support NMFS policy decisions. The approach is 3-tiered, augmenting the integral components of a successful social sciences program which includes staffing ($0.6 million and 7 FTE); data collection ($0.5 million); and research activities ($0.4 million). In combination, the funding will be used to continue addressing shortcomings in economic and social assessments of policy alternatives by improving the economic and social science staff capability, and initiation of data and applied research programs.

National Observer Program: NOAA requests an increase of $2.9 million over the FY 2002

Enacted level for a total of $17.0 million for the National Observer Program. Funding will be used to expand the collection of high quality fisheries and environmental data from commercial and recreational fishing vessels to assess impacts on marine resources and fishing communities and to monitor compliance with marine resource laws and regulations. This request will primarily provide for approximately 4,000 observer sea days spread over 11 fisheries, most of which are currently unobserved. In addition, the increase will support improvements in data management; outreach; national coordination of policies and practices; and production of educational materials. Observer funding of $14.1million for specific fisheries and other areas is also included within the $17.0 million request.

Management
$6.4 Million Increase

NMFS National Environmental Policy Act (NEPA) Implementation: NOAA requests an increase of $3.0 million over the FY 2002 Enacted level for a total of $8.0 million for NMFS NEPA. With the current amount of litigation pending, NMFS must continue to strive to enhance its management of the NEPA process. This funding will provide NMFS with the necessary resources to continue to support agency-wide NEPA activities and will allow NMFS to strengthen its decision-making and documentation process to more fully take advantage of the decision making tools provided by NEPA.

Regional Fishery Management Councils: NOAA requests an increase of $1.9 million over the FY 2002 Enacted level for a total of $16.0 million for the Regional Fishery Management Councils. This request will provide needed resources for the Councils to respond to increased workload in developing, implementing, and supporting management measures to eliminate overfishing and rebuild overfished stocks; identify and protect essential fish habitats; reduce fisheries' bycatch to the maximum extent practicable; minimize the impacts of fishing regulations on fishing communities; and to implement programs that result from the next reauthorization of the Sustainable Fisheries Act. These results will be achieved through the development of amendments to and creation of new Fishery Management Plans and regulations and corresponding and supporting international management measures to control fishing activities.

Statutory and Regulatory Requirements: NOAA requests an increase of $1.5 million to provide for thorough, complete, and timely environmental and economic analyses to NOAA customers and for its recovery programs. Funds will support personnel in all NMFS regions, science centers and headquarters to conduct required data gathering, analysis, and document preparation to assess the impacts of human activities that affect protected species. These include the range of Federal actions, including management of marine fisheries. This funding will also support assessments of the environmental and socioeconomic impacts, costs and benefits of implementing conservation programs for protected species.

Enforcement

$9.7 Million Increase

Enforcement and Surveillance: NOAA requests an increase of $4.3 million over the FY 2002 Enacted level for a total of $39.3 million for Enforcement and Surveillance activities to expand and modernize NMFS' fisheries and protected species enforcement programs. These programs include Alaska and west coast groundfish enforcement, protected species enforcement, state and local partnerships, specialized Magnuson-Stevens investigatory functions, community oriented policing and problem solving, and swordfish/Patagonian toothfish import investigations.

Vessel Management System (VMS): NOAA requests an increase of $5.4 million for additional support and continued modernization and expansion of the vessel management system (VMS) program. These resources will create a program which will monitor approximately 1,500 vessels and is readily expandible. VMS technology is an invaluable tool for modern fisheries management. It provides outstanding compliance without intrusive at-sea boardings, enhances safety at sea, and provides new tools to managers for real time catch reporting.

Other Key NOAA Programs

Line Office/ Strategic Plan	Item	FY 2003 Total
	Energy	
OAR/ISI	Energy Initiative	$6.1
PS/All Goals	Energy Management	0.6
NMFS/SHC	Energy Permit Rapid Response	2.0
	Subtotal, Energy	**$8.7**
	Homeland Security	
NOS/PSN	Vessel Lease/Time Charter	$9.9
NESDIS/ASTWF	NESDIS Single Point of Failure	2.8
NESDIS/ASTWF	Satellite Facilities Security	2.3
NWS/ASTWF	NWS Gateway Operations & Maintenance	3.0
NWS/ASTWF	NWS Climate Supercomputing Backup	7.2
NESDIS/ASTWF	Commercial Remote Sensing Licensing & Enforcement	1.2
	Subtotal, Homeland Security	**$26.4**
OAR/ISI/DECCEN	**Ocean Exploration**	**$14.2**
	Coastal Conservation	
NOS/SHC	CZM Grants	$68.9
NOS/SHC	CZM Administration	6.6
NOS/SHC	NERRS ORF &Construction	26.4
NOS/SHC	Nonpoint Pollution Implementation Grants	10.0
NOS/SHC	Marine Protected Areas	3.0
NOS/SHC	National Marine Sanctuaries ORF & Construction	45.6
NOS/SHC	Coral Reef	16.0
NOS/SHC	South Florida	2.1
NOS/SHC	National Fish & Wildlife Foundation (NFWF)	1.0
NOS/SHC	Response and Restoration	3.7
NOS/SHC	Estuarine Restoration Program	1.2
	Subtotal, NOS	**$184.5**

Line Office/ Strategic Plan	Item	FY 2003 Total
NMFS/BSF	Pacific Salmon Recovery	$17.4
NMFS/BSF	Conservation & Recovery w/ States	1.0
NMFS/BSF	Habitat Conservation	9.2
NMFS/RPS	Protected Species Mgmt. NFWF	1.0
NMFS/BSF	Coral Reef	11.0
NMFS/ SHC	Fisheries Habitat Restoration	13.2
	Subtotal, NMFS	**$52.8**
OAR/SHC	**Coral Reef Watch**	**$0.5**
NESDIS/SHC	**Coral Reef Monitoring**	**$0.7**
NMFS/RPS	**Pacific Salmon Recovery Fund & Treaty**	**$110.0**
	Subtotal, Coastal Conservation	**$348.5**
	TOTAL - Other Key NOAA Programs	**$397.8**

Energy Initiative
$8.7 Million Increase

Energy Initiative: NOAA requests a total of $6.1 million to implement a pilot program that will provide more accurate temperature and precipitation forecasts, and additional river forecast products to help the energy industry improve electrical load forecasting and hydropower facility management. Based on industry estimates, this investment will result in savings of $10 to $30 million annually in the pilot region after the second year of the demonstration. Expanding the pilot nation-wide could generate savings of over $1 billion per year.

Energy Permit Rapid Response: NOAA requests a total of $2.0 million to support the establishment and implementation of a streamlined energy permit review process which will be executed under the auspices of the National Marine Fisheries Service. This proposal responds to an Executive Order directing Federal agencies to expedite permits and coordinate Federal, state, and local actions needed for energy-related project approvals on a national basis and in an environmentally sound manner. The goal of this request is to reduce, by 25%, the time required to adjust the permits of licensed energy projects/facilities. Currently, re-licensing of existing facilities takes 6-10 years. It is anticipated that the combination of regular re-licensing and permit adjustments to implement the new National Energy Policy will result in thousands of new actions for NOAA nationally.

Energy Management: NOAA requests a total of $550,000 for Energy Management. The requested funds will be used to reduce NOAA's facility operating costs through actively pursuing energy commodities at competitive prices, identifying and implementing energy savings opportunities and applying renewable energy technologies and sustainable designs at NOAA-managed facilities. Many of the equipment retrofits that are a part of energy management have enabled facilities to recover their costs in less than five years.

Homeland Security
$26.4 million

On September 11, 2001, the Nation experienced an unprecedented attack on the World Trade Center and the Pentagon. NOAA immediately implemented its agency-wide Incident Response Plan, and was able to rapidly deploy critical assets, capabilities, and expertise to support response and recovery efforts. NOAA personnel in weather offices, satellite and remote sensing teams, hazardous materials units, marine transportation and geodesy offices, and fisheries enforcement teams provided a wide range of products and services.

NOAA's response to the September 11 attacks was rapid and focused. However, the attack fundamentally altered the context of the agency's incident response planning. The threats resulting from attacks on the nation may be different in nature, and larger in scale and scope. Thus, NOAA's Homeland Security efforts are focused on enhancing its response capabilities and improving internal safety and preparedness. NOAA is working quickly to improve its ability to coordinate emergency response, to evaluate its existing capabilities, and to identify products and services that will meet the challenge of new response realities.

NOAA's Homeland Security activities are dedicated to advancing the coordinated efforts within the Department of Commerce, the Office of Homeland Security and assist NOAA's many federal, state, and local partners.

In FY 2003, $26.4 million is requested to address the most immediately recognized areas of programmatic vulnerabilities to ensure the continuity of the most critical of NOAA's services and information products in the event of natural or man-made emergencies.

Vessel Lease/Time Charter: NOAA requests a total of $9.9 million for a Vessel Lease/Time Charter. NOAA will initiate a vessel time charter to expand its hydrographic surveying capacity. While having the capability to operate throughout America's Exclusive Economic Zone (EEZ), initial emphasis during FY 2003 will be in the Gulf of Mexico. Ninety five percent of America's non-NAFTA economic trade moves through the marine transportation system. Any interruption in the flow of goods through our nation's marine transport system yields immediate and dire impact to the national economy. Four of the top seven port areas are found on the Gulf of Mexico, including: (1) New Orleans and South Louisiana, (2) Houston/Galveston, (3) Port Arthur, TX and Lake Charles, LA; and (4) Corpus Christi, TX. The combination of high traffic, hazardous cargos and vessels operating close to the ocean bottom make waterways and ports particularly vulnerable to terrorist activities including those utilizing low technology mines. Requested funding provides critical survey data to directly enhance safety of mariners, passengers and the national economy from threats both natural or human in origin.

The lease partner will supply operating personnel and a vessel with two launches equipped to perform multi-beam and side scan sonar surveys to NOAA standards. NOAA will provide the supervisory technical expertise. The vessel will be outfitted and conduct initial operations in FY 2003, with full operations planned for FY 2004. The estimate for the leased vessel at full performance in the Gulf is approximately 330 days at sea and 500 square nautical miles per year.

The combination of enhancements to NOAA in-house fleet capacity which will occur in FY 2002 and FY 2003, and the time charter vessel requested, will enable NOAA to complete essential baseline surveys to reduce national risk from terrorist mining and accelerate the schedule for completing the critical backlog from 20 to 10 years.

NESDIS Single Point of Failure: NOAA requests a total of $2.8 million to provide backup capability for all critical satellite products and services. This effort supports the continuity of critical operational satellite products and services during a catastrophic outage. In FY 2003, NOAA will begin the first phase of hardware, software, and telecommunications purchases; and perform initial testing of all capabilities for this backup system. The requested funding also supports installing additional communications links to connect the backup location to the NOAA Science Center in Camp Springs, Maryland.

Federal Building 4 in Suitland, Maryland is a critical single point of failure for every operational NOAA satellite product and service that the NWS and other users rely on for critical weather information. Critical polar-orbiting satellite products and services include POES products such as ozone, temperature and moisture sounder products; and non-NOAA satellite products from NASA, the DoD, Europe, and Japan. Federal Building 4 is also the single point of entry for all raw satellite data received at the NOAA Science Center, where NOAA generates critical geostationary products and services. These products include all GOES AWIPS remapped imagery, high density winds, precipitation estimates, sounder products, and non-NOAA satellite data from NASA, Europe, Japan, and India.

Satellite Facilities Security: NOAA requests a total of $2.3 million to enhance security at the Fairbanks, Alaska and Wallops, Virginia satellite Command and Data Acquisition ground stations. NOAA requires these funds to enhance the systems that protect these stations, reducing the risk to satellite and ground systems assets due to breaches in security. These satellite stations represent the backbone of the ground systems that support NOAA spacecraft programs - commanding, controlling, and acquiring data from on orbit satellites with an estimated value of $4.5 billion.

NOAA will use the requested funds to provide enhanced armed guard services at both stations. NOAA will also install new barriers to control access to the Wallops, Virginia and the Fairbanks, Alaska facilities. The additional funding will also support upgrading and expanding existing lighting along the access road and around buildings and antennas at the Wallops Virginia and the Fairbanks, Alaska facilities.

NWS Gateway Critical Infrastructure Protection: NOAA requests a total of $3.0 million for the National Weather Service Telecommunications Gateway Backup (NWSTG). During FY 03, this funding will enable the NWS to complete the establishment of the NWSTG facility at the Federal Emergency Management Agency's Mt. Weather Emergency Assistance Center in Berryville, VA. After scheduled deployment in early FY 04, the continued funding level of $3.0M will cover recurring costs for NWSTG backup communications, system software licenses, systems operations and maintenance support, facility rent, and cyclical technology refreshment. This will ensure uninterrupted delivery of critical meteorological data necessary for the protection of life and property, and the economic well being of the Nation.

The current NWSTG facility, located within NWS Headquarters in Silver Spring, Maryland, has no operational backup. The NWSTG is a single point of failure, vulnerable to natural disasters, human error, computer viruses, hacker attacks, and terrorism. Today, if the NWSTG failed, more than 90 percent of the in situ weather observations necessary for production of numerical weather prediction models would be lost; no national radar or weather prediction models would be sent to external users; no weather observations and products would be sent to commercial users/vendors; access and exchange of weather observations and products with other Federal agencies and Nations would be severely limited; and all NWS centrally provided Internet-services would be halted.

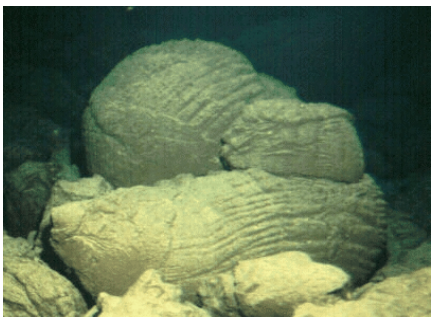
Weather & Climate Supercomputing Backup: NOAA requests a total of $7.2 million to implement an operational backup system for the NWS weather and climate supercomputer. The NWS weather and climate supercomputer is a critical component of NOAA's mission and is currently a single point of failure as the entire system is located in a single facility. Many of the data, products and services provided by and through the Central Computer System (CCS) directly contribute to the issuance of life saving NWS watches and warnings to the public. The NWS weather and climate supercomputing backup system is a critical part of DOC's Homeland Security Initiative and NOAA's comprehensive business continuity plan, designed to support uninterrupted data and product delivery to NOAA customers. The National Center for Environmental Prediction's (NCEP) CCS is currently the only computer system within NOAA capable of running highly complicated forecasting models in the required operational (regimented) mode. During FY 2003 the NWS will acquire the necessary backup system hardware capability, conduct site selection, and begin installation.

Commercial Remote Sensing License: NOAA requests a total of $1.2 million for the Commercial Remote Sensing Licensing and Enforcement Program to ensure the timely review and processing of satellite license applications. This NOAA investment will support staff engaged in the review of commercial remote sensing licensing applications. NOAA will also support monitoring and compliance activities, which include the review of licensee quarterly reports, on-site inspections, audits, and license violation enforcement. The funds requested in FY 2003 will also support activities regarding the implementation of shutter control over commercial systems to ensure that our Nation can respond to commercial remote sensing security issues in national security and foreign policy crisis situations.

Ocean Exploration

$14.2 Million

NOAA requests a total of 14.2 million for Ocean Exploration. This program seeks to increase our national understanding of ocean systems and processes through partnerships in nine major voyages of discovery in FY 2003. The total request of $14.2 million is $0.2 million above the FY 2002 enacted level. Ocean Exploration is NOAA's multi-line office (OAR/NOS/NMFS) investment in undersea exploration, research, and technology in both the deep ocean and areas of special concern, such as the U.S. Exclusive Economic Zone (EEZ), and National Marine Sanctuaries (NMS). The Ocean Exploration program consists of four key objectives: 1) Mapping the physical, geological, biological, chemical and archaeological aspects of the oceans, 2) Exploring ocean dynamics and interactions at new scales to improve our understanding of the complex interactions in this vital component of the planet's life support system, 3) Developing new sensors and systems for ocean exploration to regain U.S. leadership in marine technology, 4) Reaching out in new ways to stakeholders to improve the literacy of learners of all ages with respect to ocean issues. It uses ten percent of all funds for education and outreach to teach America's school children and stimulate their interest on ocean sciences. The data and knowledge will also be made available to all researchers and the general public quickly so they may be better informed on ocean issues. In FY 2001 we mapped over 3,200 square nautical miles using high-resolution tools, discovered 14,000 year old interidal mussel beds near Heceta Bank, collected unique samples for research, many of which were new discoveries, assisted Navy in the recovery of the steam engine from the USS Monitor, mapped more than a dozen shipwrecks in the Thunder Bay National Marine Sanctuary and had an average of 1,400 hits per day on our website www.oceanexplorer.noaa.gov, which contains 1,600 pages of detailed information about our FY 2001 discoveries, teachings, and lesson plans, photo gallery, and mission legs.



New Ocean Resources: A wealth of living and non-living resources will be discovered that may provide medical science new opportunities for pharmaceutical applications. The oceans hold vast untapped economic potential beyond fishing. Ocean floor energy resource deposits, such as methane hydrates, may revolutionize patterns of current fossil fuel consumption. Microbial organisms that thrive in deep-sea vents have already been found to have significant biotechnical potential.

Exploring Ocean Acoustics: This program will (1) create a network for monitoring marine sound of natural and human origin in the Pacific and North Atlantic Oceans and (2) determine the effects of this noise on marine mammals and turtles. Listening to underwater sound can reveal objects thousands of miles away and until recently, this sound has only been monitored by the military. By monitoring sound scientists will be able to locate earthquakes, track whale migrations, and assess the impact of noise on marine mammals.

America's Maritime Heritage: The program will survey, locate, inventory, and explore historic shipwrecks and archeological sites principally within U.S. jurisdiction and sanctuaries. Experts estimate that 50,000 shipwrecks are in U.S. waters. Recent successful expeditions to locate and explore the CSS *Hunley*, the U.S.S. *Monitor*, and shipwrecks in the Thunder Bay National Marine Sanctuary in Lake Huron, have demonstrated both public interest and the continuing development of remarkable deep sea technology.

Exploring Ocean Frontiers: NOAA will employ a full array of modern ocean technology to survey, characterize, and define diverse marine environments in areas that are not well known or understood. Work will focus on water masses and ocean fronts, benthic life, submarine trenches and canyons, submarine volcanoes, polar seas, sea-mounts, hydrocarbon seeps and hydrate beds, and living and working in the sea.

Coastal Conservation
$348.5 Million

NOS
$184.5 Million

Coastal Zone Management: NOAA requests a total of $75.6 million for Coastal Zone Management Activities. The purpose of the national Coastal Zone Management (CZM) Program is to maintain and improve the quality and utility of the Nation's coastal lands and waters through a national network of Federally-approved, coordinated, and supported state management programs that seek to maintain the balance between the needs of resource protection and coastal-dependent economic activity. These programs are state developed and implemented. The plans recognize the significance of coastal resources to our Nation's population and economy and promote improved management of these important assets. Federal matching funds are provided as cooperative agreements to support state staff and community projects that address the broad spectrum of coastal management issues ranging from habitat conservation and protection of life and property from coastal hazards, to urban waterfront and port revitalization (Section 306/306A CZMA). The $75.6 M includes grants and administration.

National Estuarine Research Reserve System (NERRS): NOAA requests a total of $26.4 million for NERRS, of which $16.4 million is in ORF and $10.0 million is in PAC Construction. The National Estuarine Research Reserve System (Section 315 CZMA) is a national network of estuarine protected areas representing the diverse biological and physical characteristics of estuarine systems of the United States. Reserves are owned and operated by state governments and serve as local, regional, and national sources of technical information and testing grounds for the improvement of coastal resource management. By the end of FY 2003, it is expected that there will be 26 designated reserves in 21 states and territories covering over one million acres of estuarine lands and waters, with one more site in the designation process. Of the $26.4 million total, $10.0 million is requested for NERRS Construction. Supplementing or updating facilities at the 26 reserves will be carried out in conjunction with the development of system-wide construction plans. All construction activities are carried out based on the current needs for implementing core NERRS program and external opportunities for partnerships. The facilities and land of the reserves are owned and managed by the states in this Federal-state partnership.

Nonpoint Pollution Implementation Grants: NOAA requests a total of $10.0 million for Nonpoint Pollution Implementation Grants. This investment will provide states with resources to reduce nonpoint pollution, the greatest single threat to coastal water quality. Coastal waters are increasingly impacted by polluted runoff. Symptoms include the impacts of Pfiesteria in coastal waters of the eastern seaboard, nutrient over-enrichment in the Gulf of Mexico, the loss of salmon fisheries in the Pacific Northwest and local closures of shellfish beds and beaches throughout the country. NOAA will provide grants to states with approved plans to address the causes of these and other symptoms of the degradation of our coastal water quality.

Marine Protected Areas (MPA): NOAA requests a total of $3.0 million for the Marine Protected Areas Program. NOAA's Marine Protected Areas Program, in coordination with the Department of the Interior, coordinates and shares information, tools and strategies, and provides guidance to enable and encourage Federal, state, territorial, tribal and local agencies in the exercise of their respective authorities to enhance the protection of marine protected areas.

National Marine Sanctuary Program: NOAA requests a total of $45.6 million for the National Marine Sanctuary Program, of which $35.6 million is in ORF and $10.0 million is in PAC Construction. This continued investment will allow for upgrading support to the operating and technical capacity in the thirteen national marine sanctuaries. Congress has required NOAA to invest in providing adequate resources for the management and protection of existing sanctuaries prior to designating new sanctuary sites. The Congress has called for sufficient resources for operational staff, facilities and equipment, effective implementation of management plans, enforcement, and particularly for site characterization including cultural resources and inventory of existing natural resources. The FY 2003 increase will support implementation of management changes identified through the revisions of sanctuary management plans. These efforts will improve protection of important sanctuary resources, including coral reefs, endangered marine mammals, sensitive habitats, and significant cultural resources. Of this amount, $10.0 million will be used for construction. The National Marine Sanctuary Program will be implementing a comprehensive facilities plan that prioritizes needs and opportunities at individual sites for constructing sanctuary visitor centers, collaborative education projects, and operational needs. In order to help establish an appreciation of sanctuary resources by the public, the program will begin to construct a network of regional visitor centers.

Coral Reef Program: NOAA requests $16.0 million for its Coral Reef program within NOS. The NOAA Coral Reef Program implements priority actions identified by the U.S. Coral Reef Task Force's National Action Plan to Conserve Coral Reefs. NOS is undertaking a series of activities to reduce human impacts on coral reefs and restore reef environments. NOS works closely with its many NOAA and external partners to ensure that resources and capabilities are utilized to improve coral reef management and protection, including mapping, monitoring, education and designation of marine protected areas.

South Florida: NOAA requests an increase of $2.1 million for South Florida. The South Florida Initiative is an integrated effort among federal, tribal, state and non-governmental partners to halt the degradation and restore the function of the South Florida ecosystem. NOAA supports the South Florida Initiative devoted to integrated Ecosystem Health Monitoring for the restoration and protection of coastal and marine areas of the South Florida Ecosystem.

Funding will support scientific investigations in the South Florida coastal ecosystem to better understand and restore the coastal areas as part of the overall restoration effort. When coupled with monitoring efforts, these investigations show the interactions between restoration efforts and oceanographic, atmospheric, geologic, hydrologic, and fisheries processes. Much of this work is coordinated through researchers at NOAA's Atlantic Oceanographic and Meteorological Laboratory (AOML) and a variety of university partners.

The Initiative has already produced significant accomplishments in this area. Continued investment is necessary to restore and maintain the marine ecosystem and the associated economies of South Florida.

National Fish and Wildlife Foundation (NFWF): NOAA requests a total of $1.0 million for NOS support of the National Fish and Wildlife Foundation (NFWF), a nonprofit organization dedicated to the conservation and management of fish, wildlife, and plant resources, and their habitats. These funds will be distributed through the NOAA grants process.

Response and Restoration: NOAA requests a total of $17.2M for Response and Restoration, including a $2.0 million program increase. Of the total amount, $3.7 million is considered part of NOAA's FY 2003 Coastal Conservation crosscutting initiative. Through the Office of Response and Restoration (OR&R), NOAA fulfills the natural resource stewardship mandate of the Secretary of Commerce to protect and restore coastal resources by countering and responding to environmental threats and promoting sound coastal decisions. Environmental threats addressed by OR&R include oil and hazardous material spills, hazardous waste sites, and contaminated sediments. NOAA also addresses activities that affect coastal environmental quality such as vessel groundings, coastal storms that mobilize contaminants, and port infrastructure development and maintenance to promote safe navigation.

Estuarine Restoration Program: NOAA requests $1.2 million for the Estuarine Restoration Program. NOS supports NOAA-wide activities mandated by the Estuary Restoration Act of 2000. NOAA works with other partners to implement a national estuary habitat restoration strategy designed to ensure a comprehensive approach towards habitat restoration projects. NOAA's activities include the development of scientifically sound monitoring protocols and standards for coastal habitat restoration projects. In addition, NOAA is developing restoration databases that provide quick and easy access to accurate and up-to-date information regarding all projects funded under the Estuary Restoration Act of 2000, as well as information on projects throughout the country that meet the standards established as a part of the Act for monitoring and data collection to provide scientists and resource mangers with information critical to successful estuary habitat restoration efforts.

NMFS
$52.8 Million

Pacific Salmon Recovery: NOAA requests a total of $17.4 million for this program within the Protected Resources Research and Management, Science and Technology line item. This investment will provide for NMFS continued investment for the recovery of these species because the threats of extinction come from a variety of activities including fishing, hatchery operations, grazing, irrigation, and timber harvest.

Cooperative Conservation and Recovery with States: NOAA requests a total of $1.0 million to provide funds to state partners under the Endangered Species Act Section 6 cooperative conservation program. These agreements will provide the means for states and local communities to undertake local initiatives in the management and recovery of ESA-listed and candidate species by providing the legal authority to make the decisions about how best to protect species at risk of extinction. The agreements would provide funding on a matching basis to accomplish conservation activities. Funding provided to the states would support local researchers, non-governmental organizations and volunteers to accomplish monitoring, restoration, science and conservation activities.

Habitat Conservation: NOAA requests a total of $9.2 million to continue NMFS efforts to provide a comprehensive program for conservation of the habitat of the Nation's living marine resources through habitat restoration in order to support the National Oceanic and Atmospheric Administration (NOAA) Strategic Plan Goal to sustain healthy coasts.

Protected Species Management - NFWF: NOAA requests a total of $1.0 million for NMFS support of the National Fish and Wildlife Foundation. These funds will continue NMFS partnership with NFWF to issue challenge grants with a matching requirement for habitat mapping and conservation programs.

Coral Reefs: NOAA requests a total of $11.0 million which will allow NMFS to continue implementing priorities of the U.S. Coral Reef Task force. Funding will support research, monitoring, and local level projects to reduce human impacts on coral reefs.

Fisheries Habitat Restoration programs: NOAA requests a total of $13.2 million for habitat restoration programs. These funds will continue to support NOAA Restoration Center activities and the community-based restoration programs which provides seed money and links NOAA technical expertise to grass-roots restoration projects, and emphasizes collaborative strategies built around improving NOAA trust resources. This highly successful national effort encourages partnerships with groups outside of NOAA and regularly has leveraged appropriated funds by factors of five to six, and by as much as 10 to 1.

OAR

$0.5 Million

Coral Reef Watch: NOAA requests a total of $0.5 million to improve understanding of coral reef ecosystems through environmental monitoring, and predicting future change. Long-term in situ coral reef monitoring stations will provide information essential for sound management decisions, long-term planning, and important research. The data collected will allow for improved understanding of coral reef ecosystem response to changes in the physical environment, and prediction of coral bleaching.

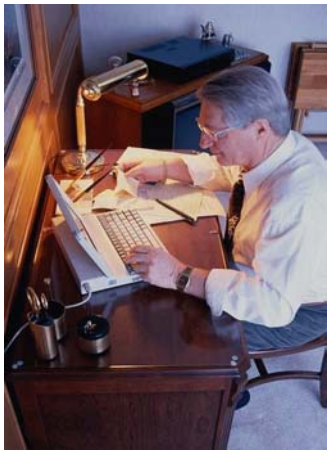
NESDIS
$0.7 Million

Coral Reef Monitoring: NOAA requests a total of $0.7 million to develop a Coral Reef Watch Program. The program focus is to (1) transition existing experimental satellite reef health monitoring capabilities into a viable operational capability, to (2) formalize the existing U.S. leadership in the emerging global "Virtual Coral Reef Ecosystem Monitoring Laboratory," and, (3) provide for a solid scientific basis for future monitoring and assessment products/capabilities. This initiative is consistent with the objectives envisioned for an Integrated Ocean Observing System, applied to the coral reef oceans areas. NOAa has established itself as a world leader in coral reef health monitoring using satellite reconnaissance techniques. Coral Reef Watch strengthens NOAA's position as the world leader in operational environmental monitoring and early warnings. It also presents a visible commitment to the frequently neglected U.S. tropical territories who, by their distance from the U.S., frequently are considered under-represented in NOAA's activities. This is a joint NOAA effort spearheaded by NESDIS in partnership with OAR, NOS, and NMFS.

Pacific Salmon Recovery Fund and Treaty
$110.0 Million

Pacific Salmon Recovery Fund: NOAA requests a total of $110.0 million for the Pacific Salmon Recovery Fund. Funding at this level will allow the states and tribes to continue support for habitat restoration and protection, research and enhancement, monitoring and evaluation, and salmon recovery planning and implementation efforts. FY 2003 funding for the Pacific Salmon Treaty at $20.0 million, along with a smaller amount in the State Department, will also capitalize the Northern and Southern transboundary funds at $75.0 million and $65.0 million respectively. A more detailed funding breakout for the Pacific Salmon Recovery Fund can be found in Section 4, supplemental information.

Financial Management in NOAA



In FY 2003, NOAA will continue to improve its core financial management responsibilities in order to meet the future needs of NOAA and its stakeholders. From a management standpoint, the ability of an organization to execute its appropriations properly, is equally as important, if not more so, than any single budgetary request for new resources. Without true integrity of its financial management systems and processes, requests for new resources are subject to mismanagement and risk not accomplishing their intended purpose. As such, NOAA has placed a high priority on the proper execution and accounting of its resources, as requested in the President's Budget and appropriated by Congress. Key budgetary and financial management improvements are centered around three key areas: 1) Improved Funds Control and Execution through Automation; 2) Improved Budget Structure; and 3) Improved Outreach and Communications.

Improved Funds Control and Execution through Automation

Included in the FY 2003 request is $16.1 million for the Commerce Administrative Management System (CAMS). CAMS will contribute to improved financial management in a number of significant ways, primarily by accounting for NOAA's expenditures and maintaining NOAA's clean audit opinion. While NOAA has made significant efforts to retain its clean audit opinion for a third consecutive year, it has done so with inefficient manual, error-prone business processes that are labor-intensive. Without significant amounts of overtime and creative manual resource tracking, NOAA's accounting details would be non-existent. CAMS will provide financial managers with on-line, real-time, and accurate financial information and will enable NOAA and DOC to meet statutory obligations under the Federal Managers' Financial Integrity Act (FMFIA) and the Chief Financial Officers Act (CFO Act).

Similarly on the budgetary side, the ability to distribute the agency's funds in a timely and accurate manner is equally important. These processes were also paper driven manual efforts, that took inordinate amounts of time and, in the end, hampered program managers' ability to conduct their programs. In response, the NOAA Budget Execution staff developed an in-house automated allowance process that not only enables managers to receive their funding earlier in the process but also enhanced NOAA's ability to track its distributions throughout the year. In past years, the allocation process took up to 6 months to complete. Today, allocations are made within 15 days of the enacted appropriation and completed in half the time previously recorded.

Improved Budget Structure

In the FY 2003 budget, legislation is requested to establish a Business Management Fund (BMF) for corporate centralized services in NOAA. For decades, NOAA has managed its centralized services through a funding mechanism supported in its current financial management system, FIMA, known as indirect costs. The process by which funds were collected and distributed to support centralized services was convoluted at best, and fraught with inconsistencies. Three years ago, NOAA began a comprehensive effort to review its corporate funding methodologies and work toward moving its headquarters management fund into a business-like environment. A number of improvements have been

realized already, including stability in corporate charges for three years in a row, returning unspent corporate costs, and reporting to customers the status of funds mid-year and at year-end. However, to complete this effort of truly realizing a business fund operation, NOAA requires legislation. No current legislation exists for NOAA to operate this fund, particularly after FIMA is replaced by CAMS. Once legislation is secured, NOAA will begin to develop budgetary documentation with the same rigor and reporting as required with appropriated funds. Already underway, in support of this effort is NOAA's initiative to implement Activity Based Costing (ABC) across all of the Office of Finance and Administration's key business lines. ABC studies are being completed to compute costs for services such as human resources, grants, and eventually all support services provided. The end result of these studies will be the ability to charge customers a fee for services, based on actual and estimated usage, and by the specific services required. This will replace the flat rate, off-the-top methodology employed today and will allow charges to be tailored to line offices' specific requirements. NOAA is committed to bringing its corporate services up to 21st century standards, and the flexibility of a business management fund is a cornerstone of its plan.

NOAA Budget Structure - Over the past several years, NOAA has been working to respond to Congressional concerns regarding its budget structure. NOAA, in conjunction with both Congressional and Administration assistance, recently restructured the budget during the FY 02 Appropriations process.

However, this effort is just a beginning, and NOAA will continue to work with Congress to ensure that our budget is adapted to Congressional reporting needs and concerns. For example, in the FY 2003 budget, NOAA has added additional specialty tables that will allow Congress to track budgetary initiative that cross multiple programs and/or NOAA Line Offices, and NOAA has enhanced its base narratives to be more descriptive. Also, in support of flexible budgetary reporting, NOAA is developing a budget database that moves its tracking tables from the current lotus driven environment to a database environment. This will allow for more accurate tracking, quicker response to inquires, and allow for greater flexibility in preparing budgetary charts in response to Congressional and Administrative inquires. In conjunction with OMB, NOAA has developed a simplified tracking table that clearly indicates NOAA's primary mission areas.

Finally, NOAA also began an effort to conduct a position and FTE management review. This effort began in FY 2002 and was adopted during the FY 2002 appropriations process. The FY 2002 efforts focused developing an accurate baseline of FTEs based on actual usage. The baseline was completed and has been implemented. In FY 2003, NOAA's efforts will focus on ensuring that the positions associated with this new baseline are aligned properly with program requirements and facilitate further analysis of NOAA's FTE usage and requirements.

Improved Outreach and Communications

In 2001, the NOAA Budget Office realigned its current staff in order to more expertly focus on budgetary outreach and communications, in particular, to improve communication and responsiveness to the Appropriations Committees by coordinating, facilitating, reviewing and tracking NOAA's responses to requests for budgetary information. NOAA developed and

implemented an in-house policy for its responses that facilitated the completion of nearly 800 individual requests since April of last year. With regard to cycle time, NOAA has reduced its response time from as much as 45 business days to an average of less than 6 business days, with a large majority responded to in the same day requested. In addition, over the last year, the NOAA Budget Office has fully developed a NOAA Budget Office Website that has both secure components for internal users and an external website for stakeholders to access real-time budgetary information.

Conclusion

As evidenced by NOAA's improving financial and budgetary management, NOAA is doing its part to exercise fiscal responsibility as stewards of the Nation's trust as well as America's coastal and ocean resources. And, in the same way that NOAA is responsible for assessing the Nation's climate, we are responsible for assessing our management capabilities. It is within this broader management context that NOAA continues looking for opportunities to improve. As in past years, NOAA's FY 2003 Budget Request includes measures which track results to the level of public investment. NOAA will continue to leverage its programs and investments by developing those associations that most efficiently and economically leverage resources and talent, and that most effectively provide the means for successfully meeting mission requirements. NOAA will continue to respond to key customers and stakeholders in its financial management area. We are continuously improving our business processes and believe that these efforts are the underpinning of NOAA's requests for new budgetary resources. Any questions or concerns in these areas can be directed to Jolene Ann Lauria Sullens, Deputy Chief Financial Officer, NOAA at http://www.rdc.noaa.gov/~nbo/