

Chapter 5

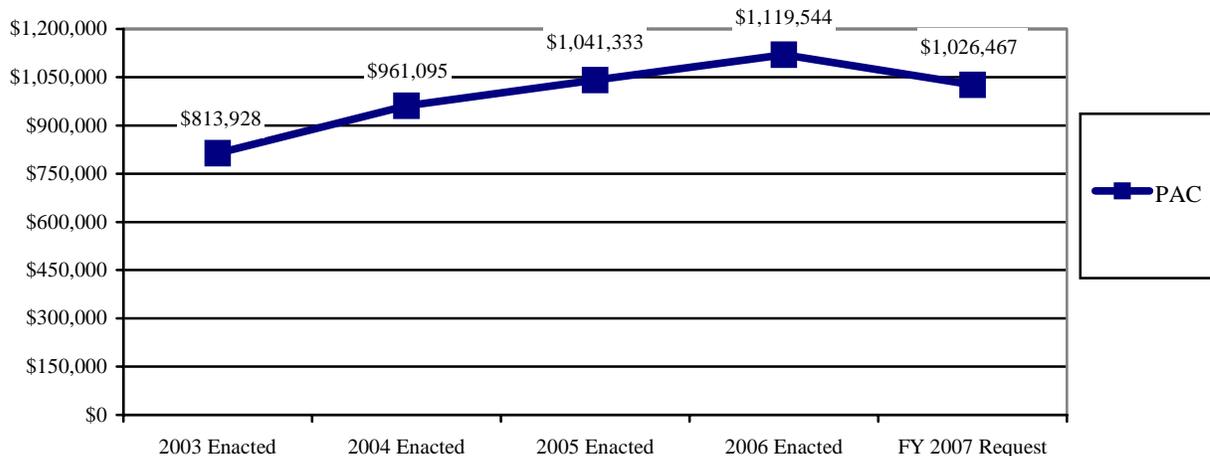
NOAA Procurement, Acquisition and Construction



Procurement, Acquisition and Construction

(Dollars in Thousands)	FY 2006 Enacted	FY 2007 Base	Program Changes	Total Request
Procurement, Acquisition and Construction (PAC)				
Systems Acquisition				
Ocean and Atmospheric Research	\$9,369	\$9,395	\$984	\$10,379
National Weather Service	79,575	71,576	(4,965)	66,611
National Environmental Satellite, Data and Information Service	772,234	769,620	112,456	882,076
Program Support	17,730	0	0	0
Total Systems Acquisition	878,908	850,591	108,475	959,066
Construction				
National Ocean Service	91,311	4,873	7,800	12,673
National Marine Fisheries Service	30,444	0	0	0
Ocean and Atmospheric Research	0	0	0	0
National Weather Service	21,825	20,779	11,030	31,809
National Environmental Satellite, Data and Information Service	2,249	2,228	0	2,228
Program Support	19,725	0	0	0
Total Construction	165,554	27,880	18,830	46,710
Fleet - OMAO	61,596	35,542	(14,851)	20,691
Aircraft - OMAO	13,486	0	0	0
GRAND TOTAL PAC	\$1,119,544	\$914,013	\$112,454	\$1,026,467
Total FTE	174	174	7	181

Budget Trends, FY 2003 - 2007 (dollars in thousands)





Procurement, Acquisition and Construction



NOAA's Procurement, Acquisition and Construction (PAC) account is mission critical to all agency programs and contributes significantly to achieving all NOAA Strategic Goals. The system acquisition projects included in this request will have a major impact on our ability to monitor and to forecast weather and climate change on a global basis. The construction projects will aid environmental recovery efforts and address NOAA infrastructure needs in housing the NOAA Center for Weather and Climate Prediction. Our fleet replacement project adjustments will continue construction and sustain NOAA fisheries research programs.

ADJUSTMENTS TO BASE:

The NOAA Procurement, Acquisition and Construction (PAC) requests adjustments to FY 2007 Base of \$1,288,000 and \$206,819,000 in terminations.

PAC PROGRAM CHANGE HIGHLIGHTS FOR FY 2007:

For FY 2007, NOAA requests an increase of \$112,454 with a total of \$1,026,467 for procurement, acquisition and construction programs. These changes include 20 major system programs, seven construction projects, three fleet projects, and withdrawal of funding for one aircraft project. Detailed numeric breakouts are located in Chapter 3, *Special Exhibits*. Descriptions of each request by line item are located in the NOAA FY 2007 Technical Budget. Note that outyear figures are estimates, and future requests will be determined through the annual budget process.

SYSTEMS ACQUISITION \$959,066,000

Office of Oceanic and Atmospheric Research \$10,379,000

Research Supercomputing

Annual Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY2009</u> <u>Estimate</u>	<u>FY2010</u> <u>Estimate</u>	<u>FY2011</u> <u>Estimate</u>
Research					
Supercomputing/CCRI	10,379	10,379	10,379	10,379	10,379

NOAA requests an increase of \$984,000 and 0 FTE for a total of \$10,379,000 and 0 FTE for NOAA’s Research Supercomputing/Climate Change Computing Initiative.

This program supports a very large, scalable computer system that provides critical computing, storage, and analysis capabilities, as well as model development and infrastructure support, for meeting the objectives of the Administration’s Climate Change Science Program (CCSP). Research into expanding the scientific understanding of the physical, chemical, and biological processes that govern the behavior of the Earth System requires a special focus on the development and utilization of large-scale computer simulations for environmental modeling. As part of the CCSP, NOAA plays a leading role in developing these computer simulations as well as hosting the High Performance Computing Systems (HPCS) on which they run. The CCSP establishes NOAA’s Geophysical Fluid Dynamics Laboratory (GFDL) as one of two national Climate Modeling Centers that will coordinate and accelerate climate modeling activities, and provide relevant decision-support information on a timely basis. Toward this end, the CCSP Strategic Plan specifically calls for an increase in computational resources to enable systematic generation of model products needed by the impacts and policy communities. This climate computing will be integrated into NOAA’s new R&D HPCS being implemented in FY 2007. The R&D HPCS represents a new, holistic, “One-NOAA” approach to planning, acquiring, and managing its HPC resources and will be fully supported with the requested increase.

National Weather Service

\$66,611,000

Tsunami Warning Program

Annual Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY2009</u> <u>Estimate</u>	<u>FY2010</u> <u>Estimate</u>	<u>FY2011</u> <u>Estimate</u>
Tsunami Warning Program	1,030	0	0	0	0

NOAA requests a decrease of \$2,440,000 and 0 FTE for a total of \$1,030,000 to reflect the planned reduction in the procurement of program assets that were required to accelerate the development and deployment of a national tsunami warning system in FY 2005 and FY 2006. Funds will be used to procure the four remaining Deep-ocean Assessment and Reporting of Tsunamis (DART) buoy spares. This budget request is necessary to complete the foundation laid by the Administration in FY 2005 and FY 2006 to strengthen the U.S. tsunami warning program.

NOAA's Environmental Real Time Observation Network (NERON) (formerly known as Cooperative Observer Network Modernization)

Annual Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY2009</u> <u>Estimate</u>	<u>FY2010</u> <u>Estimate</u>	<u>FY2011</u> <u>Estimate</u>
COOP Modernization/ NERON/ HCN/Surface Wx	4,234	4,234	4,234	4,234	4,234

NOAA is requesting no change to the \$4,234,000 base for NERON, which will provide the United States with a network of accurate, real-time surface weather data (temperature and precipitation at a minimum) obtained with state-of-the-art measurement, monitoring, and communication equipment. Quality controlled, higher density, real-time surface data will preserve and enhance the climate record of the Nation and improve temperature forecast skill, river height forecast error, radar estimates of precipitation, drought monitoring resolution, hydrology planning, and energy optimization for NWS customers. A specific goal of NERON is to form the infrastructure for the National Integrated Drought Information System (NIDIS). Additional sensors from proven commercial off-the-shelf technology, including wind data, can provide timely data for response to homeland security events or disasters. The objective of NERON is to deploy, integrate or upgrade up to 8,000 modernized sites. A part of NERON is the Historical Climate Network (HCN), comprised of approximately 1200 stations. Because of its unique purpose as the long-term network developed to assist in the detection of regional climate change, it is a high priority of NWS to ensure

the integrity of its long-term database. Like other manual NERON sites, the HCN uses older technology, and the data are not available in real time. Real time observations are necessary to meet users' needs and to provide sensor information for prompt maintenance actions. The modernization of HCN sites will mitigate the lack of information from geographical sub-regions and provide, in real-time, very high quality surface observations of temperature and precipitation that meets climate, hydrology, and weather and water forecasting needs. Modernizing the HCN will reduce the uncertainty in the measure of regional climate change.

NOAA Weather Radio

Annual Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY2009</u> <u>Estimate</u>	<u>FY2010</u> <u>Estimate</u>	<u>FY2011</u> <u>Estimate</u>
Complete & Sustain NOAA Weather Radio	5,594	5,594	5,594	5,594	5,594

NOAA requests no change to the \$5,594,000 base to complete and to sustain NOAA Weather Radio (NWR). Funds will be used to procure all of the transmitters for the seventeen (17) sites identified as high risk of severe weather events and begin installations. Nine (9) transmitters are planned to be installed in FY06 and the remaining eight (8) in FY07. Additionally, funds will be used to begin the refurbishment of four hundred (400) stations established in the 1970s, eliminating single points of failure and improving network reliability.



NOAA Weather Radio

Weather and Climate Supercomputing

Annual Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY2009</u> <u>Estimate</u>	<u>FY2010</u> <u>Estimate</u>	<u>FY2011</u> <u>Estimate</u>
Weather & Climate Supercomputing	19,092	19,092	19,092	19,092	19,092

NOAA requests no change to the \$19,092,000 base for Weather and Climate Supercomputing. The cyclical upgrade of the NWS weather and climate supercomputing capability is intended to procure the computing and communications equipment needed to receive and process the increasing wealth of environmental data acquired by modernized observing systems, process improved and more sophisticated numerical weather prediction models, and stay current with the supercomputing technology the market has to offer. Execution of this program promotes public safety and the protection of property by providing the National Center for Environmental Protection (NCEP) with the computer systems that are capable of producing more accurate NWS climate and numerical weather prediction (NWP) guidance products for hurricanes, severe thunderstorms, floods, and winter storms. Additionally, the supercomputing system more accurately forecasts large-scale weather patterns in the medium (3 to 10 days) and extended range (30 days), plus forecasts of major climate events such as El Niño and La Niña. In addition, the computer upgrades will improve the delivery of products to the field and provide system users with enhanced productivity. These products and services will lead to significant economic benefits for users, like the agriculture, construction, and transportation industries.

Weather and Climate Supercomputing Backup

Annual Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY2009</u> <u>Estimate</u>	<u>FY2010</u> <u>Estimate</u>	<u>FY2011</u> <u>Estimate</u>
Weather & Climate Supercomputing Backup	7,077	7,077	7,077	7,077	7,077

NOAA requests no change to the \$7,077,000 base for the Weather and Climate Supercomputing Backup. Because of the critical need of the weather and climate output, it is essential that a backup capability be operational, as part of contingency planning.

Automated Surface Observing System

Annual Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY2009</u> <u>Estimate</u>	<u>FY2010</u> <u>Estimate</u>	<u>FY2011</u> <u>Estimate</u>
ASOS	3,935	3,935	0	0	0

NOAA requests a decrease of \$700,000 and 0 FTE for a total of \$3,935,000 for the Automated Surface Observing System (ASOS). This decrease reflects a planned change in the implementation strategy for 240 of the total 377 sites from 40,000 foot ceilometers to 25,000 foot ceilometers.



Automated Surface Observing System

Advanced Weather Interactive Processing System

Annual Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY2009</u> <u>Estimate</u>	<u>FY2010</u> <u>Estimate</u>	<u>FY2011</u> <u>Estimate</u>
AWIPS	12,764	12,764	12,764	12,764	12,764

NOAA requests no change to the \$12,764,000 base for the Advanced Weather Interactive Processing System (AWIPS)/NOAAPort. AWIPS is the cornerstone of the modernized NWS. This system integrates and displays all hydrometeorological data at NWS field offices. AWIPS acquires and processes data from modernized sensors and local sources, provides computational and display functions at operational sites, provides robust communications system to interconnect NWS operational sites, and disseminates warnings and forecasts in a rapid, highly reliable manner. This system integrates satellite, NEXRAD Doppler weather radar data, and numerical weather prediction data enabling field forecasters to better visualize environmental processes to enable the creation of timely and accurate forecasts and warnings. AWIPS provides the only display for NEXRAD Doppler weather radar data at NWS Weather Forecast Offices (WFOs) and River Forecast Centers (RFCs). The AWIPS NOAAPort satellite broadcast network

offers the communications capability to provide internal and external users with open access to much of NOAA's real-time environmental data.

These funding resources will be used to further improve AWIPS processing, communications, and software architecture to support system processing demands from increases in NEXRAD Doppler weather radar data, increases in NCEP model data, and new NESDIS polar and geostationary satellite imagery. These pre-planned and ongoing NOAA investments in modeling, satellite instruments, and radar improvements (NEXRAD Product Improvement) represent NOAA's commitment to bring forecasters the data and information required to improve forecast accuracy and warning lead times.

NWS Government Performance and Results Act goals are based on the effective use of these technology investments along with advanced decision assistance tools, forecast preparation and advanced database capabilities. Sustained investment in the AWIPS hardware, communications, and software infrastructure is necessary to achieve these performance goals to further improve NWS Tornado Warning Lead Time, Flash Flood Warning Lead Time and Winter Storm Warning Lead Times. These cyclic replacements occur every three years to ensure that NWS stays abreast of technological changes.

Next Generation Weather Radar

Annual Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008 Estimate</u>	<u>FY2009 Estimate</u>	<u>FY2010 Estimate</u>	<u>FY2011 Estimate</u>
NEXRAD	8,376	8,376	8,376	8,376	8,376

NOAA requests no change to the \$8,376,000 base for the Next Generation Weather Radar (NEXRAD). NEXRAD is a Doppler weather radar system that provides automated signal processing, computerized processing of data by sophisticated meteorological software algorithms, and a high-capacity, processor-driven communications capability. The system is modular in design, upgradeable, has a long life-cycle expectancy, and provides both government and commercial sector weather users with a wide array of automated weather information that will increase their capability to meet their respective operational requirements. For the NWS, the system uses Doppler technology and hydrometeorological processing to provide significant increases, both in the functional capability and in performance, compared with previous radars, including improved tornado and thunderstorm warnings, increased air safety, improved flash flood warnings, and improved water resources management.

NWS Telecommunication Gateway

Annual Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008 Estimate</u>	<u>FY2009 Estimate</u>	<u>FY2010 Estimate</u>	<u>FY2011 Estimate</u>
NWSTG	495	495	495	495	495

NOAA requests no change to the \$495,000 for the NWS Telecommunications Gateway (NWSTG) Legacy Replacement. The NWSTG is the NWS communications hub for collecting and distributing weather information to its field units and external users. Replacing the NWSTG system with up-to-date technology will reduce the current delays in collecting and disseminating data by reducing transit time through the NWSTG. The replacement will ensure reliable delivery of NWS products to users and will fully capitalize on better observation data and prediction models to improve services. In FY 2006, NWS will conclude a three-year effort to replace the National Weather Service Telecommunications Gateway (NWSTG) switching system and repair and upgrade NWSTG facilities. In FY 2007, NWS will execute limited technical refresh in the second quarter, and implement NWS Back-up Telecommunications Gateway (BTG) infrastructure.

Radiosonde Network Replacement

Annual Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008 Estimate</u>	<u>FY2009 Estimate</u>	<u>FY20010 Estimate</u>	<u>FY2011 Estimate</u>
Radiosonde Replacement	4,014	4,014	4,014	0	0

NOAA requests a planned decrease of \$333,000 and 0 FTE for a FY 2007 total of \$4,014,000 for the Radiosonde Replacement Program. This decrease reflects extending the deployment schedule by one year so that the network is complete in FY 2009.

**National Environmental Satellite, Data
and Information Service**

\$884,303,000

Geostationary Operational Environmental Satellites

Annual Funding Requirements
(BA in Thousand)

	<u>FY2007</u>	<u>FY 2008 Estimate</u>	<u>FY2009 Estimate</u>	<u>FY20010 Estimate</u>	<u>FY2011 Estimate</u>
GOES	439,607	532,079	539,563	570,501	542,371

Geostationary Operational Environmental Satellite (GOES):

NOAA is requesting a net increase of \$104,039,000 and 0 FTE for the Geostationary Operational Environmental Satellites (GOES), a total request of \$439,607,000.

NOAA is requesting a planned decrease of 0 FTE and \$600,000 in FY 2007 for zero funding for the GOES I-M Series. FY 2006 was the last year of GOES I-M funding.

NOAA is requesting a planned decrease of 0 FTE and \$8,803,000 for a total of \$108,239,000 for the GOES-N Series in FY 2007. The NOAA GOES program continues the development, procurement, and launch of the next series of three GOES satellites – the GOES-N series. The spacecraft contract for the GOES-N series is a firm fixed price contract. The GOES-N series program also includes separate contracts for the instruments, one for the imager and sounder and one for the Solar X-ray Imager. The instrument contractors have completed delivery of all flight model instruments.

FY 2007 GOES-N funding will be used for: Spacecraft / launching; NASA technical management; the government program office; Product development; and Ground systems and backup.

NOAA is requesting an increase of 0 FTE and \$113,442,000 for a total request of \$335,800,000 for the GOES-R Series, consistent with the baseline funding profile for the program identified in the FY 2006 President's Budget. The GOES-R Series will provide continuity of coverage and advanced capabilities for NOAA's geostationary satellites, which serve as the Nation's continuous severe weather sentinels in space. The GOES-R Series satellites will not only provide critical weather observations for severe weather events such as hurricanes, but will also provide key enhancements in observational capabilities for climate, oceans and coasts, and the space environment. Data from NOAA's satellites contributes to public safety and the economy. Weather and climate-sensitive industries, both

directly and indirectly, account for approximately \$3.0 trillion of the United States gross domestic product (about one-third). Average annual damage from tornadoes, hurricanes, and floods is \$11.4 billion with about 100 deaths annually.



GOES-12 Image showing Hurricane Wilma is located west-southwest of Key West, Florida.

FY 2007 GOES-R funding will be used for systems acquisition, continued efforts on satellite instruments, and the government program office in support of an initial GOES-R launch date in 2012.

Polar-Operational Environmental Satellite Systems

Annual Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008 Estimate</u>	<u>FY2009 Estimate</u>	<u>FY2010 Estimate</u>	<u>FY2011 Estimate</u>
POES	89,906	62,308	41,919	41,706	31,374

NOAA requests a planned decrease of 0 FTE and \$11,861,000 for a total request of \$89,906,000 for the continuation of the Polar-Operational Environmental Satellite Systems (POES) program. POES is nearing the end of its production, with one remaining satellite to be launched, along with supporting commissioning of the first Metop satellite in FY 2007. On September 6, 2003, NOAA-N prime was involved in a serious accident at the contractor’s facility. The damage to NOAA-N Prime was assessed, estimated rebuild costs were developed, and agreements negotiated. With NOAA's approval, a contract modification between NASA and Lockheed Martin to rebuild NOAA-N Prime was signed on September 29, 2004. Progress continues on track for the planned December, 2007 launch date.



Successful launch of NOAA POES N on May 20, 2005

FY 2007 POES funding will be used for: Spacecraft & Metop; launching services; NASA technical management; the government program office; product development; and ground systems and backup.

National Polar-orbiting Operational Environmental Satellite Systems

Annual Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY2009</u> <u>Estimate</u>	<u>FY2010</u> <u>Estimate</u>	<u>FY2011</u> <u>Estimate</u>
NPOESS	337,870	343,863	297,225	373,872	405,923

NOAA is requesting an increase of 0 FTE and \$20,278,000 for a total request of \$337,870,000 for the continuation of the tri-agency National Polar-orbiting Operational Environmental Satellite System (NPOESS) program that will replace the NOAA POES program after completion of the current NOAA K-N’ series of satellites. This request represents NOAA’s share of the converged NOAA/DoD/NASA program. In FY 2007, funds are required to continue the development and production of the NPOESS spacecraft and instruments, including the Visible Infrared Image radiometer (VIIRS), the Conical Microwave Imager Sounder (CMIS), the Cross-track Infrared Sounder (CrIS), the Ozone, Mapping and Profiler Suite (OMPS), the Aerosol Polarimetry Sensor (APS), and the Space Environmental Sensing Suite (SESS). Continued development of these instruments is critical for their timely and cost effective delivery.

The National Polar-orbiting Operational Environmental Satellite System (NPOESS) program was created by Presidential Directive in 1994 to converge the polar weather satellite systems of the Department of Defense (DoD)(Defense Meteorological Satellite Program) and the Department of Commerce (DOC)(Polar-orbiting Operational Environmental Satellite (POES)), while incorporating technological advances from the National Aeronautics and Space Administration (NASA). DOC, through NOAA, has lead operational responsibility for NPOESS, DoD through the U.S. Air Force has lead system acquisition responsibility, and NASA has responsibility for developing and inserting new technologies into the NPOESS program and providing a conduit for new instruments to move from research to operations. All three agencies work within the context of a jointly-staffed Integrated Program Office.

NPOESS will provide real-time, global and regional environmental imagery, and meteorological, climatic, terrestrial, oceanic, and solar-geophysical data. NPOESS instruments will deliver more accurate atmospheric and oceanographic data to support medium to long-range weather forecasts and severe storm warnings, reducing loss of life and property, and advancing the national economy. These data are also critical for seasonal to inter-annual forecasts. The aviation community will benefit from more accurate and timely forecasts and warnings. Improved wildfire monitoring and enhanced weather warnings will benefit the agriculture industry. A better understanding of ocean winds, waves, and currents will lead to improved vessel routing for safety and fuel savings. NPOESS data will provide military leaders better situational awareness critical to combat planning and achieving air superiority, and winning war with minimum

casualties, helping to maximize combat effectiveness through improved coverage and distribution of atmospheric and space environmental conditions.

The funding profile is based on the baseline in the FY 2006 President's Budget. Any changes due to cost or schedule issues will be reflected in future budget submissions.

National Environmental Satellite, Data and Information Service **\$2,228,000**

**Satellite Command and Data Acquisition (CDA)
Infrastructure – Protecting Critical Operational Capabilities**

NOAA's CDA Infrastructure program at the Wallops and Fairbanks CDAs is to ensure continuation of the current 99.9 percent data availability for NOAA environmental satellite systems. NOAA has partnered with the U.S. Army Corps of Engineers and developed facilities master plans for Wallops and Fairbanks facilities. NOAA will then incrementally implement the facilities master plans to support a phased, multi-year program to comprehensively renovate and modernize the facilities, infrastructure, and equipment to minimize or eliminate safety, hazardous materials, waste water treatment, and other deficiencies at the facilities that could lead to outages and service disruptions caused by failure of supporting infrastructure at the stations. The Fairbanks facility is located in a seismic zone and operates in severe sub-Arctic conditions, with temperatures routinely reaching minus 60 degrees Fahrenheit during the winter months. The Wallops facility, on the Atlantic coast, is subject to a corrosive salt air environment and lies in the path of hurricanes that hit the U.S. East Coast.

CONSTRUCTION **\$46,710,000**

National Ocean Service **\$12,673,000**

National Estuarine Research Reserve System

Annual Funding Requirements

(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY2009</u> <u>Estimate</u>	<u>FY20010</u> <u>Estimate</u>	<u>FY2011</u> <u>Estimate</u>
NERRS	7,178	7,178	7,178	7,179	7,128

NOAA requests an increase of \$2,305,000, for a total of \$7,178,000, for discretionary National Estuarine Research Reserve System (NERRS) construction and land acquisition projects. This increase will maintain the level of funding needed to support this Federal-state partnership designed to protect and understand valuable estuarine resources through research and education. The facilities and land of the reserves are owned and managed by the states in this Federal-state partnership. Federal funds are matched 50:50 for land acquisition and 70:30 for construction projects (Federal/state funds). The land acquisition projects will provide greater protection to reserve resources. The construction projects include interpretive centers, reserve research facilities, educational exhibits, and boardwalks or trails. Having adequate facilities makes a considerable difference in the quality of research, education, outreach and resource protection programs that can be conducted at the reserves.

The NERRS is a Federal-state partnership designed to protect and understand valuable estuarine resources through research and education. Reserves are publicly owned lands and onsite facilities that provide opportunities for researchers as well as the public to better understand these estuarine areas. Supplementing or updating facilities at the 26 reserves will be carried on 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. When it is available, reserves will acquire additional, previously identified near-by critical habitat to increase protection and provide places for conducting long-term science, education, and demonstration programs. The facilities and land of the reserves are owned and managed by the states in this Federal-state partnership.

National Marine Sanctuaries Construction

Annual Funding Requirements

(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY2009</u> <u>Estimate</u>	<u>FY20010</u> <u>Estimate</u>	<u>FY2011</u> <u>Estimate</u>
NMS	5,495	5,495	5,495	5,495	5,495

NOAA requests an increase of \$5,495,000, for a total of \$5,495,000, for discretionary National Marine Sanctuary (NMS) construction projects in FY 2007. The Sanctuary program will continue efforts on many of the projects begun in prior years, and address operational facility requirements and small outreach efforts, i.e., exhibits. The NMS program will continue to implement a comprehensive facilities plan that prioritizes needs and opportunities at individual sites for constructing sanctuary visitor centers, collaborative education projects and operational needs. These facilities serve as important windows into the resources of the sanctuaries, since most of these special marine environments are offshore and not easily accessible by many visitors. Whenever possible, sanctuaries utilize existing aquaria, museums, and other appropriate facilities to develop cooperative centers, where the public and environmental decision makers can gain direct, objective and focused information on major conservation issues.

Based upon the NMSP's current priorities, discretionary PAC funds requested in FY 2007 would be used to: complete construction of the Eco-Discovery Visitor Center at the Dr. Nancy Foster Complex in Key West, Florida (\$800K); complete construction of the Hawaiian Islands Humpback Whale National Marine Sanctuary multipurpose facility in Kihei, Maui (\$600K); repair the sea wall at the Dr. Nancy Foster Complex in Key West, Florida (\$2M); and renovate space at the



The Dr. Nancy Foster Florida Keys Environmental Complex, currently under construction, will feature 6,000 square feet of interactive exhibits on the Florida Keys.

National Marine Fisheries Service (NMFS) Galveston Lab that was recently occupied by the Flower Garden Banks National Marine Sanctuary (FGBNMS) (\$700K). Funds will

also be used to initiate the design, fabrication, and installation of NMSP/NOAA exhibits at the Oakland Museum (Oakland, California), Long Beach Aquarium (Long Beach, California), and a visitor center in Provincetown, Massachusetts (\$950K); and reconstruct the pier at Stellwagen Bank National Marine Sanctuary to service a new 48 foot vessel (\$500K).

Construction priorities are subject to change due to various factors such as new opportunities to partner with other organizations, changes in the physical environment, and impacts from natural disasters such as hurricanes.

National Weather Service

\$31,809,000

Annual Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008 Estimate</u>	<u>FY2009 Estimate</u>	<u>FY2010 Estimate</u>	<u>FY2011 Estimate</u>
NCWCP	19,305	14,100	6,700	6,700	6,700



NOAA Center for Weather and Climate Prediction

NOAA requests an increase of \$11,000,000 and 0 FTE for a total of \$19,305,000 to prepare the NOAA Center for Weather and Climate Prediction (NCWCP) for FY 2008 occupancy and operations. This FY 2007 increase is consistent with the planned NCWCP investment profile to implement mission critical systems overlap during the transition/move from the current World Weather Building (WWB) to the NCWCP. NOAA must be ready to install systems and equipment during the six-month period prior

to the delivery of space, and in the months immediately preceding the phased completion of construction. Lastly, the funding will be used for project management tasks supporting technical oversight of the construction, occupancy, and mission critical systems relocation processes. Also, detailed planning and closely coordinated relocation activities are an absolute requirement to ensure that critical data products are not interrupted during the relocation of 24x7 mission critical systems.

This project is a key component of the NWS' effort to improve its weather and climate modeling performance, to accelerate the transfer of newly developed scientific information into operations, and to improve the use of global environmental satellite data. NWS has demonstrated a direct linkage between establishing new facilities in the proximity of research organizations, and improved program performance. The expiration of the WWB lease dictates the timing of the NCWCP Project and affords an outstanding opportunity to enhance the NWS efforts to protect the continuity and flow of critical weather warning, forecasts and data products to the Public.

The award of the lease by GSA in September 2005 will ensure occupancy of the new facility in October 2008. FY 2005 funding provided project management for NOAA, and allowed NOAA to initiate the planning and engineering required to support the mission systems relocation. In FY 2007, construction of the NCWCP will be completed. Simultaneously, NOAA will implement procurements to complete all tenant improvements and outfitting such as but not limited to: telecommunications cabling (systems acquisition and installation); interior design, system furniture acquisition and installation; and relocation costs. The FY 2007 effort will also involve the one-time relocation of mission critical operational systems from the WWB to the NCWCP. This critical system relocation funding will ensure that NOAA will be able to operate its "mission critical" programs by providing an overlap in system functionality during the physical relocation from the WWB to the NCWCP. Funding for project management includes a project manager, space planner, a project engineer and technical support, to provide continued coordination and oversight among all involved parties including GSA, users, contractors, and consultants.

NOAA requests a planned decrease of \$1,000,000 and 0 FTE for a total of \$12,504,000 to reflect the transfer of \$1,000,000 of Weather Forecast Office (WFO) construction funding to NOAA facilities to support NOAA facility planning requirements. Planned relocation (construction) of the Office of Atmospheric Research (OAR) housing currently collected at the WSO Bairow, will be deferred to FY 2008. This is a one time deferral. Construction elements currently ongoing include the upgrade and modernization of Alaska and Pacific Region Weather Service Offices, Tsunami Warning Centers, and associated employee housing units; upgrades of Heating, Ventilation, and Air Conduction (HVAC) systems at approximately 60 WFOs, uninterrupted power supply (UPS) replacements, and mitigations of all building and fire code violations. This construction effort is essential to bring the NWS into full compliance with federal law and national and local building codes.

FLEET REPLACEMENT

Office of Marine and Aviation Operation

\$20,691,000

Fisheries Survey Vessels

(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008 Estimate</u>	<u>FY2009 Estimate</u>	<u>FY2010 Estimate</u>	<u>FY2011 Estimate</u>
Fisheries Survey Vessels	13,835	965	0	0	0

NOAA requests a decrease \$18,565,000 and 0 FTE for a total of \$13,791,000 and 0 FTE for Fisheries Survey Vessels. A net decrease in funding is requested for the Fisheries Survey Vessel (FSV) program. This includes a \$1,000,000 to complete FSV 3. A decrease of \$19,565,000 is requested for FSV 4, reflecting decreased requirements as the ship nears completion. These vessels are required to collect fish stock data and data necessary to protect marine mammals. The requested funding will enable NOAA to continue construction of the fourth ship on the existing four-ship contract. FSV 3 and 4 will deploy state-of-the-art acoustic technologies, combined with a very quiet radiated-noise signature, to enhance the effectiveness and efficiency of at-sea resource surveys. There are no charter vessels that can provide this acoustically quiet capability. These capabilities will enable NOAA to monitor up to nine times more volume of water for the same time and distance traveled by NOAA’s current ships. These vessels will fully support NMFS’ new FETCH Autonomous Underwater Vehicle to extend survey sampling beyond the trackline of the ship. Additional funding in the outyears will be used to prepare the ships for operations in support of NOAA’s Ecosystem Mission Goal.

HENRY B. BIGELOW Calibration

Outyear Funding Requirements

(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008 Estimate</u>	<u>FY2009 Estimate</u>	<u>FY2010 Estimate</u>	<u>FY2011 Estimate</u>
BIGELOW Calibration	3,500	0	0	0	0

NOAA requests an increase of \$3,500,000 and 7 FTE for a total of \$3,500,000 for calibration of HENRY B. BIGELOW, (FSV 2). The vessel needs to be calibrated with the ship it will replace, ALBATROSS IV. Funds are to operative ALBATROSS IV in FY 2007 side by side with BIGELOW. BIGELOW is expected to be delivered to NOAA in FY 2006.



HENRY B. BIGELOW

BIGELOW is designed and constructed to have an extremely low acoustic signature to meet the modern data collection requirements of the National Marine Fisheries Service. The vessel will perform hydro-acoustic surveys of fish and conduct bottom and mid-water trawls while simultaneously running physical and biological oceanographic sampling during a single deployment—a combined capability unavailable on existing NOAA ships or from the private sector. Once operational, BIGELOW will enable major improvements in the precision and accuracy of scientific assessments, the monitoring of additional living marine resources, and significantly enhanced fisheries and protected-species management on the East Coast.

ALBATROSS IV has conducted the Northeast Fisheries Science Center’s bottom trawl surveys since the 1960’s. The 42+ year time series of data in this survey is the longest time series of its kind in the world and is of enormous value for conducting fish-stock and ecosystem assessments. Each time a different vessel is used in a survey, an additional source of error is introduced into the data set. Because the size, power, and operating characteristics of BIGELOW differ greatly from those of ALBATROSS IV, this error will be considerable. To avoid this, BIGELOW will need to be operated jointly with the ALBATROSS during a period of 18 months in FY 2007 and FY 2008 to calibrate the groundfish surveys.

Hydro Survey Launch Construction

Outyear Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY2009</u> <u>Estimate</u>	<u>FY2010</u> <u>Estimate</u>	<u>FY2011</u> <u>Estimate</u>
Hydro Survey Launch	2,400	2,400	2,400	2,400	2,400

NOAA requests \$2,400,000 and 0 FTE for Hydro Survey Launch Construction.

This request will fund construction of two (2) hydrographic survey launches equipped with multibeam sonar equipment. Launches are small boats deployed from NOAA’s ships in order to collect data in waters too shallow for NOAA vessels. NOAA’s launches are approaching 30 years old, which is double their recommended replacement schedule. They are experiencing hull structural failures, obsolescence issues with the machinery and mission equipment, and field breakdowns.

These survey launches significantly increase the capacity of the NOAA fleet to collect hydrographic data and contribute to the reduction of NOAA’s backlog of surveys of navigationally significant areas. This capability is especially critical in Alaska, where over half of the survey backlog exists and the survey season is shorter due to weather conditions.

Temporary Berthing for HENRY B. BIGELOW

Outyear Funding Requirements
(BA in Thousands)

	<u>FY2007</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY2009</u> <u>Estimate</u>	<u>FY2010</u> <u>Estimate</u>	<u>FY2011</u> <u>Estimate</u>
Temp. Berthing for BIGELOW	1,000	0	0	0	0

NOAA requests \$1,000,000 and 0 FTE for temporary berthing for HENRY B. BIGELOW. The funding will address berthing issues associated with delivery of NOAA's second new FSV, HENRY B. BIGELOW, which will be homeported in the northeastern United States. BIGELOW will replace ALBATROSS IV after an 18 month comparative-trawl calibration. ALBATROSS IV and DELAWARE II are currently homeported at NOAA's Northeast Fisheries Science Center (NEFSC) at Wood Hole, Massachusetts. However, due to HENRY B. BIGELOW's larger size and draft, the current pier, bulkhead, and shoreside staging areas at the NOAA Facility are inadequate to support this new fisheries survey vessel. NOAA would use the funds requested to provide temporary berthing of BIGELOW, while determining the best permanent pier site for BIGELOW. BIGELOW is scheduled to be delivered to NOAA in the third quarter of FY 2006.

NOAA has an agreement with the Woods Hole Oceanographic Institute (WHOI) to provide temporary berthing on an as-available basis for the near term, but not indefinitely. Space may not always be available at WHOI to dock NOAA's three vessels. When a berth is not available at WHOI, NOAA will have to rent a berth in Massachusetts or Rhode Island. Another request for \$3,500,000 for BIGELOW calibration with ALBATROSS IV is included in the Fleet Replacement section above. In addition, \$500,000 for first-year operations and maintenance of BIGELOW is included in the Marine Services section.

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