



# **NOAA Coastal Services Center Annual Operating Plan**

## **Fiscal Year 2006**

**(Draft)**



**NOAA Coastal Services Center**  
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY



## **About This Document**

This document is the Annual Operating Plan for program activities of the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center (Center) in fiscal year 2006. It is primarily an internal NOAA document that provides information for the reader on the Center's mission, organization, fiscal year 2006 program emphases, line office interactions, and specific project-oriented milestones. Many of the activities described are undertaken in collaboration with partners from the NOAA line offices—NOAA Ocean Service (NOS), National Environmental Satellite, Data, and Information Service (NESDIS), Office of Oceanic and Atmospheric Research (OAR), National Marine Fisheries Service (NMFS), National Weather Service (NWS), and Program Planning and Integration (PPI)—and other public and private coastal resource management organizations. You may address questions about this document to Dr. Jeffrey L. Payne, Deputy Director, NOAA Coastal Services Center, at (843) 740-1200, or via e-mail at *Jeff.Payne@noaa.gov*.

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## **Table of Contents**

<b>INTRODUCTION.....</b>	<b>3</b>
<b>ORGANIZATION .....</b>	<b>6</b>
<b>PROGRAM HIGHLIGHTS .....</b>	<b>9</b>
<b>PROGRAM COLLABORATION WITH NOAA LINE OFFICES .....</b>	<b>14</b>
<b>BUDGET AND RESOURCE INFORMATION.....</b>	<b>21</b>
<b>PLANNED ACCOMPLISHMENTS .....</b>	<b>22</b>

## Introduction

### **Mission**

The mission of the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center (Center) is to build capacity for informed decision making about our coasts. The nation's coastal resource managers are the Center's primary customers. The Center assists the nation's coastal resource management and emergency management communities by providing access to information, technology, and training, and producing new tools and approaches that often can be applied nationwide. To learn more about the Center and these efforts, visit [www.csc.noaa.gov](http://www.csc.noaa.gov).

### **Operating Principles**

- National in Scope, Local in Approach
- Partnership Building
- Best Practices
- Results-Based

### **Core Values**

- Commit to high-quality products and services that positively influence coastal decision making
- Catalyze innovation and progressive change in the coastal management community
- Achieve success through collaboration, internal teamwork, and external partnership building
- Ensure continuing relevance through critical evaluation and adaptive behavior
- Respect all employees and customers, including their views and differences

### **Strategic Assessment**

The "oriented to customers" operating principle is a guiding force in the organization. The NOAA Coastal Services Center approaches each project and service from the customer's perspective. Customer input is solicited for refining program emphases and for identifying and designing projects through surveys, needs assessments, workshops, evaluations, and direct interactions. No project is undertaken unless it 1) has a defined end user and clear utility and 2) is conducted in partnership with users and enablers. The results are then shared with other members of the customer community.

As a part of the organization's 10-year commemoration, the Center has undergone an in-depth strategic assessment process during fiscal year 2005 that included staff members, customers, and partners. The goal was to assess Center strengths and weaknesses, continue to gain insight into customer needs and the means to improve products and services, and chart a course for the next five years.

<b>Center Strategic Assessment Fiscal Year 2005 Activities and Results</b>	
<b>Key Activities</b>	<b>Key Results</b>
<ul style="list-style-type: none"> <li>• <b>Managers' retreat and assessment of current plan</b></li> </ul>	<p><b>New vision and mission</b></p> <p><b>Strategic themes</b> – Coastal Watersheds, Coastal Hazards, Learning Organization, Integrated Ocean Observing System (IOOS)</p>
<ul style="list-style-type: none"> <li>• <b>Staff survey and discussion session</b></li> </ul>	<p><b>Diversity workshop</b> – Ensure our diverse workforce can be constructive and contribute toward a successful program</p> <p><b>Staff education program on coastal management</b> – Increase employees' general knowledge about coastal resource management</p> <p><b>IT assessment</b> – Assess requirements, current practices, and opportunities for improvement with our Web development, programming, and information technology (IT) functions</p> <p><b>MIS assessment</b> – Determine what is needed to create an effective, Center-wide management information system (MIS)</p>
<ul style="list-style-type: none"> <li>• <b>Assessment of customer needs and other external drivers</b></li> <li>• <b>Logic model development</b></li> <li>• <b>NOAA Partnership meeting</b></li> </ul>	<p><b>Strategic theme development</b> – Outcomes, activities, and audiences</p> <p><b>NOAA Coastal Services Center performance measures</b> – Target goals for activities, outputs, and outcomes to monitor progress</p>
<ul style="list-style-type: none"> <li>• <b>Blue Ribbon Panel</b></li> </ul>	<p><b>Restructuring</b> – Based on functions, with theme leads, and commitment to regional deployment</p>

The Center will be drafting a new strategic plan during fiscal year 2006 to provide organizational direction and priorities for long-term investments, annual planning, and project-selection decisions. In this plan, the Center's efforts will be categorized into the following themes:

**Coastal Watersheds / Ecosystem Approaches to Management.** The Center works to preserve the social, economic, and environmental landscape of this nation by working with organizations involved with coastal and ocean management. The Center develops decision-support tools and delivers data, training, technology, and information for these partners in their quest to address specific coastal resource management issues. Primary focus areas include the following: land use

planning – products and services to examine watershed change, including development trends associated with increases in impervious surfaces and natural land cover changes; ocean and Great Lakes planning – products and services to manage submerged lands and managed areas; and coastal conservation planning – products and services to address the amount, quality, and distribution of coastal habitats, including the effects of land use on water quality and availability.

**Coastal Hazards.** Coastal hazards include both natural and man-made events (chronic and episodic) that threaten the health of coastal ecosystems and communities. This definition includes, but is not limited to, hurricanes, tsunamis, erosion, oil spills, harmful algal blooms, and pollution. Center projects in this theme area in fiscal year 2006 will work to reduce the environmental, social, and economic impacts from coastal hazards by providing information and tools that facilitate increased decision-support capabilities for longer-term planning and management and shorter-term emergency response.

**Learning Organization.** This theme area represents the ongoing efforts of Center employees to build an organization that serves its customers and its employees to the best extent possible. The Center must provide an innovative workplace and maintain an expert staff to preserve its relevance and fulfill its overall mission. The focus in this theme is on the structure, function, and policies of the Center. Strategies include investing employees in the Center’s mission, encouraging the establishment of integrated, cross-functional teams, empowering employees, establishing strategic partnerships for mutual capacity building, and encouraging new ideas for continued improvement. This theme will also rely on continued investment in training, professional development, and other learning mechanisms.

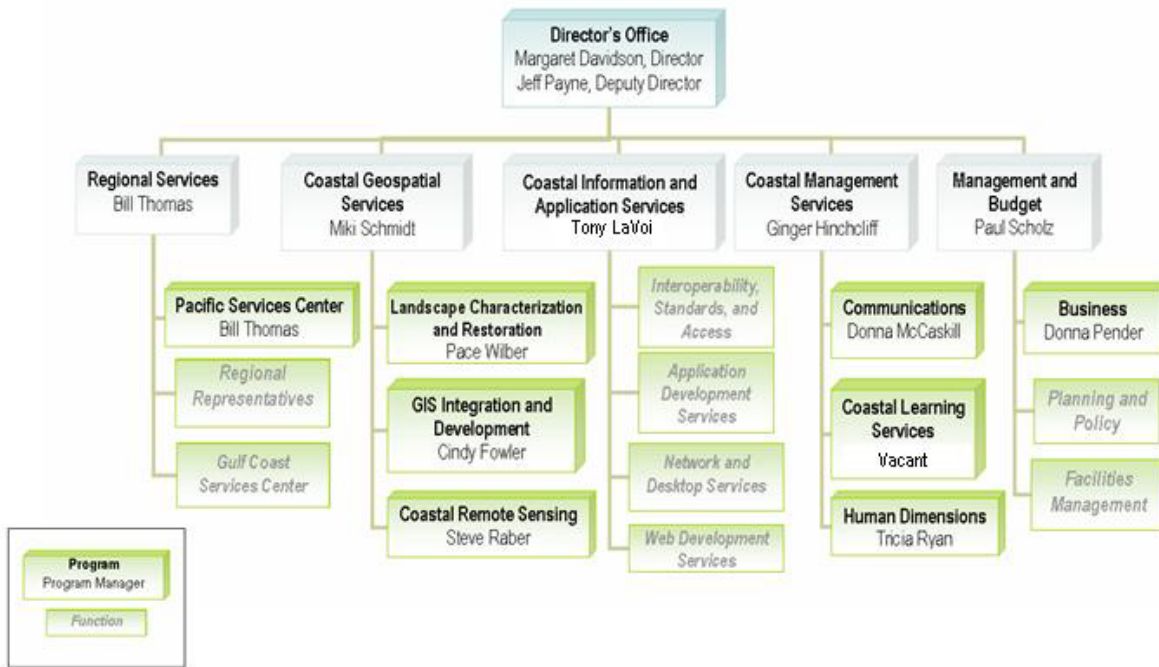
Initial activities will involve prioritizing the outcomes in the Center’s learning organization logic model, developing and implementing approaches for addressing specific concerns and needs, developing quantifiable criteria for measuring learning organization success, and incorporating success metrics from other theme areas into organizational development.

**Integrated Ocean Observing Systems (IOOS).** In this theme, the Center seeks to work with multiple partners, including managers, academic institutions, the private sector, and nongovernmental organizations, to enhance the availability, utility, and integration of coastal and ocean observations. Center projects in this theme area support efforts to provide a coordinated approach to data management and to the governance structures of the regional associations that compose the national system. Projects that address data management issues will improve the ability of IOOS partners and stakeholders to access and share observational data in a routine manner through promotion of standards and support of best practices workshops. Other projects will support the regional associations through needs assessment activities that will determine the actions needed to most effectively implement IOOS. The Center’s communication and coordination activities will serve the regional associations, the Ocean.US office, and NOAA’s leadership for interagency planning and execution of IOOS.

## Organization

The Center is experienced in setting up distributed systems for interoffice engagement. Three attributes of the Center’s business process embody a matrix organization: formal interline office agreements describing programmatic and administrative goals, permanent interline office personnel relationships and accountability, and systematic planning.

As a result of the Center’s strategic assessment process, including several recommendations from the external review, suggestions in the staff survey, and discussions with other NOAA partners, the structure of the organization has changed to match the key functions of the Center. This new structure has several objectives: 1) refine organizational focus and execute smartly; 2) institutionalize regional deployment; 3) improve execution of IOOS strategy; 4) institutionalize focus on data management and systems design; 5) refine commitment to planning, execution, and results; and 6) reduce layers of management and improve span of control.



**Director’s Office.** The Director’s Office (DO) is responsible for general management, administration, strategic and operational planning, partnership building, program evaluation, and budget oversight for the Center. The DO ensures that the Center pursues activities that are consistent with its stated mission, integrates its efforts with partners, and is responsive to customers and NOAA.

**Regional Services.** Regional Services includes the Pacific Services Center, a regional office located in Honolulu, Hawaii, and oversees specific regional coordination projects in other coastal areas. The vision of Regional Services is a nationwide network of centers that help create an informed and inspired coastal community that has a comprehensive understanding of coastal and ocean resource management issues, uses best thinking and practices, and makes the best social and economic decisions through the sharing of resources. Its mission is to provide convenient and timely access to accurate and reliable information, as well as technology and training, to conserve and manage the nation's coastal and marine resources in a way that ensures economic, social, and environmental sustainability. The Center has deployed individuals, including Center-shared personnel, to the Northeast, Gulf of Mexico, West Coast, and Mid-Atlantic who are contributing to the Center's regional presence. Working with NOAA offices, other agencies, and state and local partners, the Center will focus on improving and expanding regional service in the Great Lakes and the Gulf Coast in 2006.

**Coastal Management Services.** The Coastal Management Services (CMS) branch links the coastal resource management community with information, products, and services focusing on the social component of the ecosystem approach to management. Expertise includes communication and outreach, meeting planning, education and training, and applied social science methods. CMS builds the capabilities of the managers to understand and successfully engage their community, effectively use adaptive management strategies, and develop partnerships through fellowships, direct technical assistance, and training. CMS also facilitates sharing new ideas and lessons learned by bringing the coastal resource management community together through meetings, conferences, and trade publications. These efforts result in coastal managers being able to apply best practices that integrate social, economic, and environmental aspects of coastal management.

**Coastal Geospatial Services.** Coastal Geospatial Services (CGS) houses the Center's data development and mapping, data integration and analysis, and geospatial product development capabilities. Scientific and technical capabilities include remote sensing, coastal change analysis, geographic information system (GIS) analysis, environmental characterization, benthic mapping, habitat restoration, watershed modeling, coastal conservation, GIS-based risk and vulnerability assessments of coastal hazards, storm surge inundation mapping, geospatial training, and decision-support tool development. CGS focuses on developing and providing access to broad-based information and technology tools for coastal resource and emergency managers.

**Coastal Information and Application Services.** The Coastal Information and Application Services (CIAS) branch coordinates the Center's efforts in the areas of geospatial data standards, software and Web development, and information technology services. CIAS leads the Center's contributions to IOOS Data Management and Communications (DMAC), and international and federal geospatial standards and interoperability coordination. CIAS develops software applications and Web services, and coordinates Web development for the Center and its customers. This branch also plans for, procures, and provides support for network and desktop information technology needs of all Center staff members.



**Management and Budget Services.** Management and Budget (M&B) is responsible for the day-to-day business operations and planning, policy, and coordination functions of the Center. M&B ensures that the Center executes its mission in accordance with the appropriate federal procedures, and provides support services in acquisitions, property management, human resources, facilities management, and all other administrative and financial services. M&B conducts support activities that include annual and long-range planning, legislative and policy analysis, and coordination of rapid response drills and activities.

## **Fiscal Year 2006 Program Highlights**

### **Coastal Watersheds**

#### **Land Use Planning**

At the core of land use planning are examinations of land use change and analyses of how those changes affect the ecosystem services that communities expect from coastal environments. The Center is working with state agencies and private-sector partners to help their efforts to examine land changes caused by Hurricanes Katrina and Rita. Updating land cover and topographic data for Louisiana is central to these efforts, but the efforts also include working with communities impacted by these storms to determine landscape features essential for communities to be resilient in the face of natural and man-made forces.

The Center is working with state agencies from Florida and Alabama to help their efforts to examine effects of development on ecosystem function by using GIS-based tools, such as the Nonpoint Source Pollution Erosion Comparison Tool (N-SPECT), to predict water quality impacts to rivers and streams from development. The Center also is working with universities to further develop the National Ocean Economics Program. This program provides the most accurate assessments available of the national coastal and ocean economies and is essential to understanding the pressures that land use planners face and to quantifying the benefits of smart land use decisions.

#### **Ocean and Great Lakes Planning**

Managing and monitoring open waters is difficult, yet improving our understating of ocean and Great Lakes resources is essential to better nurturing the 2.3 million jobs and \$117 billion of gross economic output that comes to the U.S. economy from these areas. In addition to developing the National Ocean Economics Program, the Center is supporting ocean planning through a Regional Ocean Information System (ROIS) for the Gulf of Mexico that will give coastal management entities easy access to the comprehensive data and information they need. Digital representations of applicable laws and jurisdictional boundaries will be included, as well as physical, biological, and human use spatial data. The Gulf of Mexico is a pilot project; the effort will be replicated in other coastal regions and will help coastal management initiatives transcend local and state boundaries.

#### **Coastal Conservation Planning**

Conserving coastal habitats requires communities to set bold objectives for conservation and government agencies and conservation groups to have the knowledge and information to achieve those goals. B-WET (Bay Watershed Education and Training) Hawaii, the Maine Conservation Planning Initiative, and the Center for Ecological Restoration and Stewardship enhance the capability of local groups to initiate conservation dialogues within their communities and to advocate effectively for a future that sees habitat quality as an integral portion of economic opportunity.

Bold conservation goals must be followed by smart action. The Center is working with state agencies (such as the Wells National Estuarine Research Reserve, the Southern California Wetland Recovery Project, and the Great Lakes Commission) and environmentally-focused nongovernmental groups (such as The Nature Conservancy and NatureServe) to improve selection of conservation and restoration areas by developing GIS-based decision-support tools and the data needed to use these tools.

### **Management Process Skills**

It is not just about protecting more areas; it is also about improving how we manage areas already protected. Coastal resource managers are finding the natural resources they manage being “loved to death.” The Center is working with National Estuarine Research Reserves and National Wildlife Refuges to develop easy step-by-step processes for identifying and defining unacceptable impacts to biological and cultural resources. An array of strategies and tactics are developed that will help managers craft a clear problem statement and develop measurable indicators for monitoring impacts and management and set standards for impact acceptability.

In order to engage in adaptive ecosystem management, coastal managers want to measure the impacts of their programs. The Center provides coastal management professionals from National Estuarine Research Reserves, National Estuary Programs, and Sea Grant a process to design and implement management and strategic plans that have measurable impacts on the audience or the issue they want to effect. This process, delivered through training and technical assistance, helps increase the effectiveness of programs by applying a plan and evaluation within the scope of agency and organizational missions and established program niches, and by using performance measurement as a part of program evaluation. To date, coastal resource managers in Florida, the Gulf Coast, and the Great Lakes have implemented plans using this process.

### **Coastal Hazards**

As was evident during the past two active hurricane seasons, the nation’s coasts continue to become more vulnerable to impacts from coastal hazards attributed in part to ever-increasing coastal population growth. Center projects in this area will work to reduce the environmental, social, and economic impacts from coastal hazards by providing tools and information for long-term planning and short-term emergency response. Areas of work include the following:

- 1.) Implementing the NOAA Storm Surge action plan through pilot projects such as the National Ocean Service (NOS) storm surge partnership project and community inundation modeling workshop.
- 2.) NOAA Coastal Storms Program projects such as the inundation visualization tool and a searchable catalog of current NOAA data and observations, models, tools, and outreach and education opportunities.
- 3.) Partnering with the National Weather Service on projects that produce enhanced geospatial displays of hazardous weather or inundation warnings, and improve delivery of products and information.

- 4.) Partnering with the Department of Homeland Security's Federal Emergency Management Agency (FEMA) and Association of State Floodplain Managers to provide geospatial technical assistance and steer the development of new products and services to meet the needs of federal, state, and local emergency and coastal zone managers.
- 5.) Regional coordination, through the Pacific Services Center and others, to develop better access to hazards data and decision-support functionality through simple open source tools for state and local agencies.

## **Integrated Ocean Observing System (IOOS)**

### **IOOS Data Transport Laboratory**

Ocean observation data providers operate in a highly heterogeneous computing environment and strive to enhance interoperability. Within the community, there are several research and development efforts underway to explore data transport. Strengthening and focusing the transport implementation practices among IOOS partners requires the persistence and objectivity of a development and testing lab environment. The IOOS Data Transport Laboratory will allow data providers to both participate and receive direct technical assistance. Partners will include federal and regional partners, with specific input and feedback from the Ocean.US Data Management and Communication (DMAC) Data Transport Expert Team.

### **Regional Association Needs Assessment**

The Center is leading a needs assessment process that will inform Center and partner activities that are designed to assist the nascent Regional Associations as they develop business and governance plans, engage the user community, and navigate the processes required to become certified.

### **Data Best Practices Workshops**

The Center will work with partners to gather experts in data quality, metadata, and data transport related to specific IOOS core variables. The process that the Center has developed to conduct best practices workshops is designed to address the variety of data collection and storage efforts that are in use. Partners will include Regional Associations, regional coastal ocean observing systems, federal agencies, and related initiative representatives (DMAC, Marine Metadata Initiative) that are currently involved with collecting and sharing data and information.

### **Harmful Algal Blooms Decision Support**

The Center is working with partners at NOAA and in the Gulf of Mexico to integrate ocean observations into decision-making tools for monitoring and mitigating harmful algal blooms. The forecast system is being improved in Florida through the integration of in situ detectors and more quantitative oceanographic models. Improvements to ocean color satellite algorithms, the integration of in situ data, and active participation by state agencies will allow the system to expand to the Texas coast in 2006.

## **Learning Organization**

### **NOAA Coastal Services Center social science plan**

The Center has identified engaging in the social sciences as a strategic area for contribution. A cross-Center team will develop a social science plan to provide a coordinated, strategic approach to future development of social science information, tools, and technical assistance. This process will facilitate effective communication within and between programs, offices, and staff in all Center facilities.

### **NOAA Coastal Services Center performance measure development**

The Learning Organization team has begun working with Abt Associates to develop performance measures for the theme. A variety of reference documents have been provided to the contractor. This material is being used to guide prioritization, identify root issues, and support performance measures that address multiple outcomes. A draft roadmap showing the various measures and how they relate to the Learning Organization logic model is due November 30, 2006.

### **External evaluations of Center products and programs**

The Center's *Coastal Services* magazine and *Coastal Connections* newsletter are undergoing an external evaluation for their effectiveness in serving our clientele. The survey results will be used to inform any changes to these publications and to support other evaluation recommendations. The Coastal Management Fellowship program will also undergo an external review that will assess its effectiveness in providing professional development for the fellow, assisting states with their critical issues, and developing performance measures that allow tracking and monitoring of the program's progress. Both of these evaluations are designed to meet the Learning Organization outcome of a high level of satisfaction from the Center's clients and partners.

### **Management Information System (MIS) evaluation and revision**

An external contractor has begun evaluating the Center's existing MIS with the intent of making recommendations for how the system might better support project planning, tie to budget tracking, allow for performance monitoring, and serve the Center's regional offices. The objective is a system that is useful as an internal planning tool, facilitates information exchange, fosters a systematic approach to program planning, budgeting, and execution, and contributes toward the Learning Organization outcomes.

### **Center coastal management education program**

The Center is in the initial phases of developing a course on coastal resource management. This course will provide the state and local perspective on coastal management and complement existing Center training courses. A contractor is developing the curriculum with input by the Center. Once complete, it will be part of the orientation process for Center staff members and be portable so that Center staff members can teach it. The course is intended to address a high priority need expressed during the Learning Organization logic model development process.

## **Across Themes**

### **Building Construction**

Phase 1 of the Center Expansion Project was completed in January 2006. This phase delivered a new wing that connects the existing two facility structures, providing an additional 25 office spaces, additional storage space, a modernized shipping and receiving area, Americans with Disabilities Act access to the second level of Building 2, a new roof, four new conference rooms, a new computer training lab, and an enlarged external training facility.

Phase 2 of the Center Expansion Project is anticipated to be complete in Summer 2006. This phase will deliver a new wing branched off from the existing Building 1, providing an additional 30 office spaces, renovation of facility lounge and eating area, and parking lot and exterior lighting improvements. Full occupancy of this phase is expected by the end of 2006.

## **Program Collaboration with NOAA Line Offices**

“Partnerships” is one of the primary operating principles at the Center. Partnerships within NOAA are an important part of this equation, as the Center strives to be an integral part of the team working to make NOAA goals a reality, and to bring multiple talents to the table to focus on the needs of a mutually defined customer base. To ensure meaningful cross-organizational planning, execution, and personnel management, this annual operating plan is developed in association with the NOAA line offices, and signed by the NOAA Assistant Administrators. Following are some representative activities in which the Center is partnering with other NOAA offices.

### **National Marine Fisheries Service**

During fiscal year (FY) 2006, the Center and NOAA Fisheries will jointly manage two federal and several contract personnel. The two federal positions represent the Office of Habitat Conservation (OHC) and the Office of Science and Technology. Several contractor positions at the Northwest Fisheries Science Center are partly funded by the Center. One full-time contract position is funded by OHC and located at the Center. In addition to these shared full-time equivalents (FTEs), 2.3 FTE of Center personnel will assist OHC during 2006 in the management of cooperative agreements and contracts initiated during previous fiscal years, such as the special appropriations to NOAA Fisheries for mapping oyster reefs in South Carolina.

Habitat restoration, especially the NOAA Community-based Restoration Program (CRP), remains a fertile ground for collaboration between the Center and NOAA Fisheries because both groups pursue habitat restoration by working through coastal resource managers. Since FY 2001, the Center and NOAA Fisheries have jointly funded 15 CRP projects, including projects that have garnered national and international awards for being models of exemplary restoration practices. During FY 2005, the Center worked closely with Circuit Rider Productions in their efforts to restore habitat used by migrating salmon along the Russian River, California. NOAA’s work with Circuit Rider Productions has attracted support from foundations and local governments to establish the Center for Ecological Restoration and Stewardship, which is focused on community-based watershed planning and restoration in northern California. During FY 2006, the Center and OHC will complete development of a training program for CRP grant recipients. The goal of this training is to help CRP partners more frequently monitor the success of their restoration projects so that NOAA Fisheries can better include CRP results in NOAA’s Government Performance and Results Act and other performance measures.

Benthic habitat mapping remains a focus of collaboration between the Center and NOAA Fisheries. During FY 2005, the Center, OHC, and NatureServe completed a three-year effort to develop a coastal/marine ecological classification standard and initiated a full-scale test of the standard by the University of Idaho in the Columbia River Estuary. This test should be completed during FY 2006. The focus of the test is on the utility of the framework for mapping habitats used by salmonids during their migratory and juvenile stages.

The Center continues to fund and manage NOAA's Coastal Change Analysis Program (C-CAP), which is dedicated to the development, distribution, and application of land cover and change data for the nation's coasts and NOAA Fisheries helped establish. Data for several coastal regions are now available, for use by scientists and managers, with additional areas planned for completion in FY06. An update to C-CAP land cover information in the Gulf Coast is being coordinated with NOAA Fisheries to aid in long response and monitoring efforts. It is envisioned that C-CAP land cover data will function as a base layer for integrated regional examinations of the linkages between coastal wetland habitats, adjacent uplands, and living marine resources. The Center also would like to build upon NOAA Fisheries' long-standing interest in C-CAP to develop a vision for the next generation of NOAA-led land cover products that make use of new sensors with finer spatial resolution.

Lastly, the Center continues to provide ad hoc support to NOAA teams led by staff members from NOAA Fisheries. Center programs worked with Dr. Steve Murawski to assess damage to wetlands and other environmental resources after Hurricanes Katrina and Rita. Center staff members also regularly assists the Ecosystem Goal Team leadership in their efforts to hold workshops with stakeholders in NOAA's efforts to implement an ecosystem approach to management.

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

The Center coordinates and collaborates with the National Environmental Satellite, Data, and Information Service (NESDIS) on a number of different levels, particularly through four shared FTEs, two from the NESDIS Office of Research and Applications (ORA) and two from the NESDIS National Oceanographic Data Center (NODC). These personnel are located in two separate program areas at the Center, with one person responsible for managing and supervising an entire program, and another planned to be located at the NOAA Chesapeake Bay Office.

Collaborative activities generally include remote sensing, data rescue, management and archiving, and inter-office coordination. The Center collaborates with ORA and its Coastwatch program on the use of remote sensing and ocean color products in coastal decision-support systems and resource management applications. One of the shared ORA FTE positions will be hosted at the NOAA Chesapeake Bay Office, beginning in FY 2006. The Center continues to work with the National Climatic Data Center (NCDC) on the Climate and Weather Impacts on Society and the Environment (CWISE) cooperative agreement with North Carolina State to develop climate products and information, and with the Climate Database Modernization Program (CDMP) to rescue valuable historic data. The Center also collaborates on IOOS data management and geospatial data access activities. Fiscal year 2006 collaborative activities of note include the following:

#### *IOOS Activities*

- Co-chair the DMAC Metadata Expert team with National Coastal Data Development Center (NCDDC)
- Coordinate IOOS data and metadata activities with NODC



- Coordinate activities with the NOAA Integrated Observations Team

*Remote Sensing Activities:*

- Collaborate with ORA in the use of Coastwatch products for the NOS operational Harmful Algal Bloom (HAB) bulletin system
- Coordinate and collaborate with ORA on NOAA Chesapeake Bay Office satellite remote sensing activities
- Coordinate with ORA on the development of a new primary productivity Coastwatch product.
- Coordinate the use of classified data assets through the Civil Applications Committee (CAC).

*Data Rescue, Management, and Archiving:*

- Partner with NCDC to continue shoreline data rescue and database development, valued at \$1.2 million in FY 2005.
- Coordinate with NOAA Data Centers to ensure all Center data and metadata are archived appropriately.
- Ensure two copies of all Center print and hard electronic products were archived at the NOAA Central Library in accordance with NAO 205-17.
- Work with the NOAA Central Library to complete the integration of the Coastal Zone Information Collection (CZIC) into the holdings of the NOAA Central Library.
- Coordinate with NCDC on E-Gov Geospatial One-Stop Project, specifically the “Atmosphere and Climate Community.”

## **Office of Oceanic and Atmospheric Research**

The Center and the Office of Oceanic and Atmospheric Research, specifically the National Sea Grant College Program, will continue and expand their previous years’ interactions through two shared federal FTEs. The first shared position collaborates with the extension programs in the 30 Sea Grant programs across the country and develops training programs that are based on needs assessments conducted with the Sea Grant extension community. Courses developed in the past include “Project Design and Evaluation,” “Public Issues and Conflict Management,” “Negotiating for Coastal Resources,” “Web Content Design and Evaluation,” and “Survival Skills for Coastal Resource Managers.” Sea Grant programs host the workshops and also attend Center courses hosted by other coastal resource managers. Additional courses under development include “Coastal Climatology” and “Coastal Community Planning and Development,” also for design and delivery through the Sea Grant network.

The second shared position provides team leadership for the Center’s Human Dimensions program. This shared position, new in FY 2005, works with Sea Grant on a number of programmatic activities, including the NOAA Coastal Management Fellowship program and smart coastal growth. State Sea Grant directors review and nominate applicants for the fellowship program each year, and the national office serves as a reviewer for fellowship state selection and fellowship candidate finalists. As a part of the NOAA/U.S. Environmental

Protection Agency Smart Growth Partnership, the Center is working with Sea Grant and the other federal partners to develop a training course for state coastal resource managers on coastal community planning and development. The position also served on a review panel for Smart Growth Implementation Assistance grants, selecting three programs to receive financial and technical assistance to implement smart growth principles in their communities.

The Center will also continue its strong partnerships with the national and state Sea Grant offices on the Nonpoint Source Education for Municipal Officials (NEMO) project, in Sea Grant theme team areas such as fisheries, coastal communities and economies, coastal natural hazards, and ecosystems and habitats, and through the Coastal Storms Program with projects in the Southeast, Pacific Northwest, and Southern California.

## **National Weather Service**

Together, the National Weather Service (NWS) and the Center have extended and improved NOAA's product and service delivery to coastal communities. Collaborative activities are focused on the assessment and mitigation of coastal hazards and improved conveyance of risk. The Center has both a shared federal FTE that manages coastal hazards projects and a contract position at NOAA's Tropical Prediction Center/National Hurricane Center (TPC/NHC) to assist in integrating geospatial technology into products and services. Initiatives such as the Coastal Storms Program, Advanced Hydrologic Prediction Service, and more recent participation in the NOAA Storm Surge Assessment Team have served as key points of collaboration between these groups. Ongoing and planned collaborative efforts fall into three major categories:

- 1) *New services and products demonstrated or planned through the Coastal Storms Program:*
  - Develop an outreach strategy for the Oregon Coastal Inundation Visualization Tool, engaging the IOOS Regional Association community on use of real-time observations for graphical display of coastal inundation. This decision-support tool was developed in FY 2005 to improve forecasting and observation capabilities, and to assist in preparation for and awareness of coastal storms. The tool uses real-time wave and tide data to project potential wind wave inundation on sandy shore coastal segments of Oregon and has tsunami inundation layers included. The Coastal Storms Program will also work with the Tsunami Program in FY 2006 on implementing the latest tsunami model and mapping data as part of the tool.
  - Develop a hazards locator tool that will address multiple hazards, including inundation for the next Coastal Storm Pilot region: The Southern California Bight. Collaboration with the Tsunami Program will need to occur to get the latest tsunami inundation layers into the tool. The tool will be built in FY 2006, and outreach and training for emergency and coastal managers will occur in FY 2007. A catalog of current Coastal Storms Program data and observations, models, tools, and outreach and education opportunities will also be developed by the Center in FY 2006 to assist the program as it expands to the Gulf of Mexico in late FY 2007 or early FY 2008.

2) *New techniques for graphical flood impacts:*

- Develop methods and standards for graphical flood impact maps, based on NWS flood impact information through the Advanced Hydrologic Prediction Service (AHPS), and finish pilot projects that exemplify coordination with the Federal Emergency Management Agency (FEMA) map modernization program on risk conveyance products. Work with the NWS AHPS program and FEMA to develop national strategy for graphical flood impact map implementation.
- Continue to improve FEMA and U.S. Army Corps of Engineers HURREVAC program training and outreach materials, including a HURREVAC brochure and training modules for the inland flood and tide modules.

3) *NOAA storm surge assessment team and GIS technical assistance:*

- Participate in NOAA Storm Surge Assessment activities, including developing an action plan to address both Hurricane Isabel and NOAA Storm Surge Assessment recommendations. Focus areas for recommendations are datum and nomenclature, models, graphical display and tools, data, access, interagency coordination, socioeconomics information, and training, education, and outreach. Center contract staff members at TPC/NHC will assist with operational storm surge runs, assist with Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model enhancements and basin updates, and work to incorporate GIS technology in the production of NHC products and services.
- Evaluate NWS digital and graphical products and participate in outreach efforts to ensure the forecast needs of the coastal management community are being met, while meeting the NWS mission of protecting life and property. This includes providing GIS support in the form of graphical forecast maps for landfalling hurricane risk assessment to the NOAA desk at the Homeland Security Operations Center (HSOC), the NOAA Incident Coordination Center (ICC), and FEMA Regional Recovery Coordination Centers (RRCCs).

## **National Ocean Service**

During FY 2006, the Center will be undertaking many projects that integrate across programs within NOS. These efforts include presenting an NOS Data Explorer/IOOS Compatibility Prototype Demonstration, planning and hosting a Coastal Erosion and Inundation Workshop, providing metadata training to the Gulf of Maine Ocean Data partnership, working with the NOS shoreline data portal development team, and providing overall leadership for NOAA storm surge efforts. As part of the NOAA Coastal Storms Program, the Center and other NOS offices will design a Web-based inventory of all NOAA products and services related to coastal storms for customers in Southern California, and will begin scoping and establishing partnerships for a pilot project in the Gulf of Mexico.

The Center is working with the Office of Ocean and Coastal Resource Management (OCRM) on the NOAA/Environmental Protection Agency Smart Growth partnership as part of the Smart Growth Network, and is providing OCRM with the results of outcomes of past Coastal Zone Management Act Section 312 evaluations of state Coastal Management Programs and National Estuarine Research Reserves. The Center is also coordinating with OCRM to develop a pilot training program in Coastal Community Development. The Center and the National Geodetic Survey (NGS) will be completing quality assurance on remote sensing data and imagery in the Gulf of Mexico. In the area of coastal hazards, the Center is working with the Center for Operational Oceanographic Products and Services (CO-OPS) to create a decision-support tool with various components to assist Chatham County, Georgia, in mitigating against coastal hazards such as coastal flooding and storm surge inundation.

The Pacific Services Center (PSC) will complete acquisition of current high-resolution satellite imagery in Guam, Oahu, Maui, and Kauai to reach 100 percent coverage of U.S. flag Pacific islands' coastlines and inland areas. This project is in conjunction with several NOS offices, including the National Marine Sanctuaries (NMS), National Geodetic Survey (NGS), Office of Coast Survey (OCS), National Centers for Coastal Ocean Science (NCCOS), and the Office of Response and Restoration (OR&R). PSC will work with other NOS offices to aid in the development of regional IOOS activities for the Pacific islands, including the new NOAA Integrated Environmental Applications Information Center. PSC is also collaborating with OCS and NGS to conduct community workshops on height modernization in Hawaii, which should promote safe navigation and environmental integrity in Hawaii and the Pacific Islands.

## **Program Planning and Integration**

NOAA's Office of Program Planning and Integration (PPI) leads the implementation of NOAA's Strategic Vision by developing and evolving NOAA's Strategic Plan, managing designated programs using matrix principles, and promoting the development of effective programs by integrating talent, resources, and capacity across NOAA. The Center works with PPI primarily through involvement with matrix programs in the Program Planning, Budgeting, and Execution System (PPBES). The Center's activities are captured within two programs in two of NOAA's four mission goals—the Coastal and Marine Resources (CMR) program in the Ecosystem Goal Team and the Coasts, Estuaries and Oceans (CEO) program in the Weather and Water Goal Team.

The Center leads the CEO program in working with the NOAA Weather and Water Goal Team to reduce the loss of life, injury, and damage to the economy from hazardous and severe weather events; and to produce better, quicker, and more valuable weather and water information to support improved decisions.

The Center participates in and supports the CMR program, working with the NOAA Ecosystem Goal Team to build healthy and productive coastal and marine ecosystems that benefit society and to inform the public so they can serve as stewards of these ecosystems. The Center also supports the Ecosystem Goal by collaborating with the Habitat Matrix Program.

The Center supports NOAA's Climate Goal through the development of coastal climatology information resources and joint funding of the CWISE cooperative agreement with NESDIS.

## Fiscal Year 2006 Budget and Resource Information

The annual allocation of Center resources to projects and activities is determined by customer and partner needs, strategic objectives of the Center, NOAA, and the administration, and with guidance from the U.S. Congress. Most of the Center's budget is apportioned as part of the NOAA National Ocean Service budget in the NOAA operations, research, and facilities appropriation. The Center acquires reimbursable funding from a variety of sources to conduct work. The Center's base budget for FY 2006 is \$22.7 million in direct funding. Changing priorities or unexpected events during the year may alter spending and project plans.

NOAA Coastal Services Center FY 2006 Base Budget (by service area) \$ in 000							
	Management and Budget Services	Coastal Management Services	Coastal Information and Application Services	Coastal Geospatial Services	Director's Office	Taxes and Labor *	TOTAL Base
<b>TOTAL PLAN</b>	1,314	1,343	635	1,426	3,863	14,103	22,684

\* Includes Federal, Transferred, and Contract Labor

The following table represents other resources received by the Center.

NOAA Coastal Services Center FY 2006 Other Direct Budget Resources (by program) \$ in 000						
	Pacific Services Center	Coastal Storms Program	Integrated Ocean Observing System	Coastal Change Analysis	MS/LA Digital Coast	TOTAL Direct Funding
<b>TOTAL PLAN</b>	4,438	1,233	25,938	493	986	33,088

NOAA Coastal Services Center FY 2006 Employees	
Coastal Services Center FTE	68
Other FTE (Transferred Labor)	11
Other Federal Labor (Co-located)	4
Non-Federal	103
<b>Total</b>	<b>186</b>

## Planned Accomplishments

The following planned accomplishments are the result of a systematic planning process. The NOAA Coastal Services Center is committed to meeting its mission, which is nested within NOS and NOAA priorities. Through interacting with other offices within NOAA, the Center is able to more effectively deliver services to the coastal management community. The milestones we plan to accomplish represent significant work outputs in support of Center and NOAA goals, objectives, and performance measures. (*Note: Performance measures are from NOAA Coastal and Marine Resources program and NOAA Coasts, Estuaries, and Oceans program.*) The following table demonstrates how the Center's strategic outcomes in two themes\*\* connect to these performance measures.

Coastal Services Center Outcomes	NOAA Performance Measures
<b>Coastal Watersheds:</b> Coastal communities will apply effective management practices that balance social, economic, and environmental factors in the use, development, and conservation of coastal resources.	Number of students reached by coastal and marine education programs that meet state or national science education standards
	Percent of coastal and marine areas adequately characterized for management
	Annual number of coastal, marine, and Great Lakes ecological characterizations that meet management needs
	Cumulative number of tools and technologies that improve ecosystem management
	Number of decision makers trained in best management practices to improve management of coastal and marine ecosystems
<b>Coastal Hazards:</b> Coastal communities have significant reduction of human, environmental, and economic impacts from natural hazards.	Number of regions in which capacity was built to address coastal hazards and other weather and water conditions
	Number of data management components in process for integration into IOOS DMAC
	Facilitate the national implementation of IOOS in conjunction with Ocean.US and developing Regional Associations
	Number of CEO-related meetings, courses, and material available and accessible to decision makers
	Cumulative percent of U.S. shoreline and inland areas that have improved ability to reduce coastal hazards impacts

\*\*The **IOOS** and **Learning Organization** themes will connect to new Coastal Services Center performance measures being developed during FY 2006.

Project Title	Milestones	Lead Program Area	Other CSC Programs Involved	NOAA Partners	Type	Fiscal Qtr
<b>NOAA Strategic Performance Objective: Increase number of regional coastal and marine ecosystems delineated with approved indicators of ecological health and socioeconomic benefits that are monitored and understood</b>						
<b>CPM (Corporate Performance Measure): Annual Number of Coastal, Marine, and Great Lakes Ecological Characterizations that meet management needs</b>						
<b>CMRP Performance Measure: % of regions with baseline of land cover characterized. Percent of coastal and marine areas adequately characterized for management.</b>						
<b>C-CAP</b>	<b>Provide Coastal Change Analysis Program (C-CAP) land cover products for a region of the coastal US, as part of the national baseline that will be used to track coastal land cover change over time.</b>	CRS			NOS	Q2
<b>NOAA Strategic Performance Objective: Increase portion of population that is knowledgeable of and acting as stewards for coastal and marine ecosystems.</b>						
<b>CMRP Performance Measure: Number of students reached by coastal and marine education programs that meet state and/or national science education standards.</b>						
	Develop a population that is knowledgeable about sustainable resource management via stewardship activities and programs as it relates to the watershed, estuarine and marine environment taken into account traditional resource management methodologies and modern-day scientific and technological methods.	PSC				Q3
<b>B-WET</b>	<b>Submit Bay Watershed Education and Training (B-WET) program applications recommended for funding to NOAA's Grant Office, to increase environmental literacy in classrooms and communities.</b>	PSC			NOS	Q3
<b>NOAA Strategic Performance Objective: Increase number of coastal communities incorporating ecosystem and sustainable development principles into planning and management</b>						
<b>CMRP Performance Measure: Cumulative number of tools and technologies that improve ecosystem management</b>						
Decision Support Tool for Setting Project Goals and Objectives	Complete testing of decision-support tool for setting project goals and objectives with focus groups from NOAA Community-based Restoration Program.	LCR		NMFS: IRF, OIT, LE, SF, PR, HC, S&T	CSC	Q1
Decision Support Tool for Setting Project Goals and Objectives	Deliver completed and tested decision-support tool for setting projects goals and objectives to NOAA Restoration Center.	LCR		NMFS: IRF, OIT, LE, SF, PR, HC, S&T	CSC	Q3



NOAA Coastal Services Center  
FY 2006 Annual Operating Plan

Project Title	Milestones	Lead Program Area	Other CSC Programs Involved	NOAA Partners	Type	Fiscal Qtr
SWIM	Complete characterization and Web site.				CSC	Q4
Support to the Southern California Wetland Recovery Project	Deliver the completed Southern California Riparian Ecological Assessment Method (SCREAM) tool to the Wetlands Recovery Project with completed results for the five pilot watersheds and develop workshop materials including data sets, and example problems to facilitate the use and understanding of the tool.	LCR	CIAS		CSC	Q3, Q4
Gulf Coast Services Center Needs Assessment	Convene first needs assessment workshop with Gulf of Mexico regional representatives, and conduct review of existing regional requirements documents and surveys.	Regional	CIS ops, HD, CMS Ops, PSC	CO-OPS, OCS, NGS, OCRM, OR&R, NCCOSSea GrantNCDC, NCDDCSF, PR, HCNDDBC	CSC	Q1, Q3
Gulf Coast Services Center Needs Assessment	In conjunction with NOAA Program Managers meeting, hold special session on Gulf of Mexico regional needs.	Regional	CIS ops, HD, CMS Ops, PSC	CO-OPS, OCS, NGS, OCRM, OR&R, NCCOSSea GrantNCDC, NCDDCSF, PR, HCNDDBC	CSC	Q3
Gulf Coast Services Center Needs Assessment	Convene final needs assessment workshop with Gulf of Mexico regional representatives.	Regional	CIS ops, HD, CMS Ops, PSC	CO-OPS, OCS, NGS, OCRM, OR&R, NCCOSSea GrantNCDC, NCDDCSF, PR, HCNDDBC	CSC	Q3, Q4
Gulf Coast Services Center Needs Assessment	Coordinate with institutions of higher learning in the Gulf of Mexico to improve community resiliency to hazards, focus on ecosystem approaches to management, and increase the use of geospatial framework data and data integration tools.	Regional	CIS ops, HD, CMS Ops, PSC	CO-OPS, OCS, NGS, OCRM, OR&R, NCCOSSea GrantNCDC, NCDDCSF, PR, HCNDDBC	CSC	Q4
Great Lakes Needs Assessment	Complete a comprehensive needs assessment for the Great Lakes Region that considers the other regional efforts, and identifies state coastal resource management issues and requirements.	HD	GIS I&D, CRS, LCR, HD, Communications, PSC, Regional Representatives	CO-OPS, OCRM, Sea Grant, GLERL lab	CSC	Q4

Project Title	Milestones	Lead Program Area	Other CSC Programs Involved	NOAA Partners	Type	Fiscal Qtr
Northern California - Coastal Conservation	Complete coastal conservation needs assessment for the northern California study area.	GIS I&D	Regional Representatives		CSC	Q4
Maine Coast Protection Initiative	Summarize lessons learned through the Maine Coast Protection Initiative implementation process.	GIS I&D			CSC	Q4
Maine Coast Protection Initiative	Provide technical and product development support to the Maine Coast Protection Initiative GIS working group and GIS Resource Centers.	GIS I&D			CSC	Q4
Maine Coast Protection Initiative	Summarize participation and outcomes of the strategic conservation best practices workshops conducted by the Land Trust Alliance as part of the Maine Coast Protection Initiative.	GIS I&D			CSC	Q3
Coastal Conservation Support	Support information exchange and networking between conservation and coastal management groups at the Land Trust Alliance conference and through coastal caucus activities in partnership with the Land Trust Alliance and The Nature Conservancy.	GIS I&D			CSC	Q4
Coastal Conservation Support	Develop a seminar titled, "Tools for Evaluating Effectiveness of Coastal Conservation" for delivery at the National Land Conservation Conference sponsored by the Land Trust Alliance.	GIS I&D, CLS		OCRM	CSC	Q1
Coastal Conservation Support	Deliver a workshop on the "Alternatives for Coastal Development" project to Georgetown County planners, developers, and elected officials through the NERR Coastal Training Program.	GIS I&D		OCRM	CSC	Q1
<b>Geospatial tools and tech</b>	<b>Provide geospatial decision support tools, strengthen the professional and technical capacity of coastal conservation organizations, conduct needs assessments, and promote technical information sharing to build capabilities in the coastal management community for effective ecosystem management.</b>	GIS I&D	LCR, Regional, HD		NOS	Q4
Regional Ocean Information Systems	Support US Ocean Action plan outcomes and ecosystem planning needs by compiling and producing georegulations data and Web services for existing federal-level data, adding other federal and state data as they become available.	GIS I&D	CIAS	Sea Grant Law Center	CSC	Q4

Project Title	Milestones	Lead Program Area	Other CSC Programs Involved	NOAA Partners	Type	Fiscal Qtr
Regional Ocean Information Systems	Complete alpha product and review stage of the Regional Ocean Information System Web portal for the Gulf of Mexico and plan for completion.	GIS I&D	CIAS	Gulf of Mexico Alliance, Sea Grant Law Center	CSC	Q4
Ecosystem Boundaries	Complete an internal, interactive mapping Web site displaying ecoregional boundaries, along with ancillary data, to help foster effective ecosystem-based management and regional planning.	GIS I&D	CIAS	Gulf of Mexico Alliance, Sea Grant Law Center	CSC	Q2
ROIS and Gomex	<b>Support US Ocean Action plan outcomes and information needs of the Gulf of Mexico Alliance through the federal workgroup, and coordinate and interface with the Alliance by developing interactive mapping Web sites to help foster effective ecosystem-based management regionally, throughout the US.</b>	GIS I&D	CIAS		NOS	Q4
<b>CMRP Performance Measure: Number of decision-makers trained in best management practices to improve management of coastal and marine ecosystems.</b>						
Geospatial Training	Provide at least 6 GIS and 4 metadata training classes to Center project partners.	GIS I&D			CSC	Q2, Q4
Shoreline Data Development and Delivery	Plan and host a Shoreline Change II Conference focused on management aspects of shoreline erosion in coordination with USACE, USGS, FEMA, & OCRM.	GIS I&D		OCRM	CSC	Q4
Process and Content Training	Deliver 8 trainings (process and content) to a total of 160 d/makers representing at least 5 states	CLS	HD		CSC	Q2
Remote Sensing Training	Provide a minimum of two Remote Sensing training opportunities to Center constituents.	CRS	CLS		CSC	Q2
General Conference, Workshop, and Meeting Support	Provide meeting planning and logistical support to 8 meetings and workshops to support a total of 200 d/makers representing at least 5 states	CLS	All	OCRMNCEP, NHC	CSC	Q2
Process and Content Training	Deliver 7 trainings (process and content) to a total of 140 d/makers representing at least 5 states	CLS	HD		CSC	Q4

Project Title	Milestones	Lead Program Area	Other CSC Programs Involved	NOAA Partners	Type	Fiscal Qtr
General Conference, Workshop, and Meeting Support	Provide meeting planning and logistical support to 7 meetings and workshops to support a total of 175 d/makers representing at least 5 states	CLS	All	OCRMNCEP, NHC	CSC	Q4
Training and Conferences	<b>Support broader understanding and networking in the coastal management community as measured by: 1) delivery of technology, process, and content training courses to Coastal Services Center clients and NOAA partners; and 2) planning, implementing, and evaluating conferences and workshops.</b>	CLS	GIS I&D, CRS, HD		NOS	Q2, Q4
<b>CMRP Performance Measure: Number of activities conducted to provide a technically trained workforce and environmentally informed citizenry.</b>						
Coastal Management Fellowship	Select state agency projects for NOAA Coastal Management Fellowship.	CLS		OCRMSea Grant		Q1
Coastal Management Fellowship	Select NOAA Coastal Management Fellows through the matching workshop.	CLS		OCRMSea Grant		Q3
Coastal Management Fellowship	Place at least 4 coastal management fellows in 4 states	CLS				Q4
Coral Management Fellowship	Place at least 5 coral fellows with 5 states or territories	CLS				Q2
Magazine	Publish 3 issues of the magazine.	Communications				Q2
Magazine	Publish 3 issues of the magazine.	Communications				Q4
Magazine and Fellows	<b>Provide coastal managers with best management practices as measured by: 1) publishing 6 issues of Coastal Services magazine; and 2) placing 4 coastal management fellows and 5 coral reef management fellows with state coastal management programs.</b>	CLS, Communications			NOS	Q2, Q4
	Provide technical assistance in PDE, social assessment, performance measures, facilitation, and visitor use to 8 different groups representing at least 5 states	CLS and HD		OCRMSea Grant	CSC	Q2

Project Title	Milestones	Lead Program Area	Other CSC Programs Involved	NOAA Partners	Type	Fiscal Qtr
	Provide technical assistance in PDE, social assessment, performance measures, facilitation, and visitor use to 7 different groups representing at least 5 states	CLS and HD		OCRMSea Grant	CSC	Q4
<b>Social Science</b>	<b>Support coastal managers in applying social science data and information to ecosystem management through technical assistance and consultations on social assessments, and program management.</b>	HD, CLS			NOS	Q2, Q4
<b>NOAA Strategic Performance Objective: IMPROVE PREDICTABILITY OF THE ONSET, DURATION, AND IMPACT OF HAZARDOUS AND SEVERE WEATHER AND WATER EVENTS.</b>						
<b>CEO Performance Measure: Cumulative % of U.S. shoreline and inland areas that have improved ability to reduce coastal hazards impacts</b>						
Coastal Hazards Outreach and Training	Strengthen established partnerships and build new partnerships with federal, state, and local coastal hazards managers to assist them in developing outreach materials and trainings that will work to improve emergency management practitioners knowledge and understanding of coastal hazards, the risks, resiliency, mitigation techniques, and other resources available to them.	GIS I&D	CLS		CSC	Q4
	<b>Provide on-the-ground technical assistance to the National Weather Service Tropical Prediction Center / National Hurricane Center on infusion of GIS technology and tools to enhance ensemble and operational storm surge modeling, storm surge basin updates, and general forecast processes. Begin development of prototype forecast products and coordinate with FEMA Hurricane Liaison Team. This is a Recommendation in the Storm Surge Action Plan.</b>	GIS I&D	HD, CLS, Communications	CO-OPS, OCS, NGS, OCRM, OR&R, NCCOSSea Grant, AOMLNCEP, OCWWS, OST	NOS	Q2, Q4
<b>CEO Performance Measure: Number of regions in which capacity was built to address coastal hazards and other weather and water conditions</b>						

Project Title	Milestones	Lead Program Area	Other CSC Programs Involved	NOAA Partners	Type	Fiscal Qtr
NOAA Storm Surge Efforts	Collaborate with the National Weather Service National Hurricane Center to re-design the existing training module to broaden delivery. Develop train the trainers model for storm surge and forecasting uncertainty.	CLS	HD, CLS, Communications	CO-OPS, OCS, NGS, OCRM, OR&R, NCCOSSea Grant, AOMLNCEP, OCWWS	CSC	Q4
NOAA Storm Surge Efforts	Collect and inventory data and use to build a GIS framework that will serve as a portal to various types of data and allow access to these data for the NOS Storm Surge Partnership Project and begin planning for decision support tool development in FY' 07.	GIS I&D	CRS, HD, CLS, Communications	CO-OPS, OCS, NGS, OCRM, OR&R, NCCOSSea Grant, AOMLNCEP, OCWWS, OST	CSC	Q4
	<b>Provide overall coordination and project oversight for the NOS Storm Surge Partnership Project which includes program level projects (i.e., training, graphical and spatial displays, inventory framework).</b>	GIS I&D			NOS	Q4
NOAA Storm Surge Efforts	Advance seamless integration of Gulf of Mexico topography and bathymetry for use in storm surge and inundation analyses by documenting the current status and viability of datasets and analyzing areas of inadequate coverage to inform future data collection efforts. This is a recommendation in the NOAA storm surge action plan.	CRS	HD, CLS, Communications	CO-OPS, OCS, NGS, OCRM, OR&R, NCCOSSea Grant, AOMLNCEP, OCWWS, OST	CSC	Q4
NOAA Storm Surge Efforts	Work with the National Weather Service (NWS) including the National Hurricane Center and Office of Climate, Water, and Weather Services (OCWWS) on developing a training module for many of the same materials that can be delivered via a distance education. Act as a consultant to the NWS. This is a recommendation in the NOAA storm surge action plan.	CLS	HD, CLS, Communications	CO-OPS, OCS, NGS, OCRM, OR&R, NCCOSSea Grant, AOMLNCEP, OCWWS, OST	CSC	Q4

Project Title	Milestones	Lead Program Area	Other CSC Programs Involved	NOAA Partners	Type	Fiscal Qtr
NOAA Storm Surge Efforts	Building on the Coastal Storms Program products and services inventory, begin developing an expanded inventory of existing NOAA storm surge and other storm related products and services that includes data and observations, models, tools, and outreach and education activities over different time scales. This is a recommendation in the NOAA storm surge action plan.	GIS I&D	CRS, HD, CLS, Communications	CO-OPS, OCS, NGS, OCRM, OR&R, NCCOSSea Grant, AOMLNCEP, OCWWS, OST	CSC	Q4
NOAA Storm Surge Efforts	Assist with planning and execution of coastal inundation workshop with inundation modelers to develop a community modeling approach, including agreed upon standards and approaches for data ingestion, software tools, and outputs. Report out workshop summary and next steps. This is a recommendation in the NOAA storm surge action plan.	DO Ops	HD, CLS, Communications	CO-OPS, OCS, NGS, OCRM, OR&R, NCCOSSea Grant, AOMLNCEP, OCWWS, OST	CSC	Q2
Geospatial Technical Assistance to the Federal Emergency Management Agency for Preparedness and Mitigation	Create a decision-support tool with various components to assist Chatham County, Georgia in mitigating against coastal hazards, such as coastal flooding, and storm surge inundation. Functionality may include incorporating coastal and ocean observation data to develop a shallow coastal flooding module and other maps or tools to assist in determining the risk to the county. This is a recommendation in the Storm Surge Action Plan.	GIS I&D		CO-OPS, OST, OCWWS	CSC	Q4
	<b>Implement the NOAA storm surge action plan for NOAA's next generation storm surge forecasting for local, state, and regional emergency managers.</b>	M&B			NOS	Q2, Q4
Harmful Algal Blooms	Incorporate new data streams, funded by the NOS Partnership Proposal, into the procedures for generating the Florida Harmful Algal Bloom bulletin.	CRS	HD	CO-OPS, NCCOS, OCS, ORRORA	CSC	Q4
	<b>Incorporate additional algorithms and imagery into the developmental system to provide an improved Harmful Algal Bloom bulletin.</b>	CRS			NOS	Q4
<b>NOAA Strategic Performance Objective: INCREASE APPLICATION AND ACCESSIBILITY OF WEATHER AND WATER INFORMATION AS THE FOUNDATION FOR CREATING AND LEVERAGING PUBLIC (I.E., FEDERAL, STATE, LOCAL, TRIBAL), PRIVATE AND ACADEMIC PARTNERSHIPS.</b>						
<b>CEO Performance Measure: Cumulative % of U.S. shoreline and inland areas that have improved ability to reduce coastal hazards impacts</b>						

Project Title	Milestones	Lead Program Area	Other CSC Programs Involved	NOAA Partners	Type	Fiscal Qtr
	<b>Develop a set of standards and methods for flood severity maps to assist the NWS in a national implementation plan for these products.</b>	GIS I&D	CLS	OST, OCWWS, WFOs	NOS	Q3
<b>CEO Performance Measure: Number of data management components in process for integration into IOOS DMAC</b>						
Coastal Storms Program	Coordinate planning and execution for Coastal Storms Pacific Northwest and Southern California pilot regions, including holding an annual planning meeting and developing implementation plans.	M&B	GIS I&D, HD, CLS, Communications, CMS Ops, Regional Representatives	CO-OPS, OCS, OCRM, OR&R, NCCOSSea Grant, ETL, AOMLNWFS COST, NDBC, OHD	CSC	Q3
Coastal Storms Program	Develop an on-line mapping decision-support tool based on existing Geographic Information System (GIS) hazards and base data to educate the public on coastal storms related hazards. (Southern California pilot study)	M&B	GIS I&D, HD, CLS, Communications, CMS Ops, Regional Representatives	CO-OPS, OCS, OCRM, OR&R, CSC, NCCOSSea Grant, ETL, AOMLNWFS COST, NDBC, OHD	CSC	Q4
Coastal Storms Program	Enhance Pacific Northwest Coastal Inundation Tool via software architecture redesign and provide outreach and marketing materials to project partners and Sea Grant outreach coordinator. This includes submitting a technical publication in a peer-reviewed journal.	M&B	GIS I&D, HD, CLS, Communications, CMS Ops, Regional Representatives	CO-OPS, OCS, OCRM, OR&R, CSC, NCCOSSea Grant, ETL, AOMLNWFS COST, NDBC, OHD	CSC	Q4
Coastal Storms Program	Develop a communication and roll-out strategy to inform regions including a use case and process for adding new products and services (Southern California pilot region).	M&B	GIS I&D, HD, CLS, Communications, CMS Ops, Regional Representatives	CO-OPS, OCS, OCRM, OR&R, CSC, NCCOSSea Grant, ETL, AOMLNWFS COST, NDBC, OHD	CSC	Q4
Coastal Storms Program	Develop a comprehensive inventory of existing Coastal Storms Program products and services in the form of a matrix to include data and observations, models, tools, and outreach and education activities over different time scales.	M&B	GIS I&D, HD, CLS, Communications, CMS Ops, Regional Representatives	CO-OPS, OCS, OCRM, OR&R, CSC, NCCOSSea Grant, ETL, AOMLNWFS COST, NDBC, OHD	CSC	Q1



Project Title	Milestones	Lead Program Area	Other CSC Programs Involved	NOAA Partners	Type	Fiscal Qtr
	Enhance coastal observations and models to improve forecasting in the Pacific Northwest and Southern California pilot regions, and develop and provide decision support tools to improve coastal storm related planning and mitigation.	M&B			NOS	Q4
<b>NOAA Strategic Performance Objective: INCREASE COORDINATION OF WEATHER AND WATER INFORMATION AND SERVICES WITH INTEGRATION OF REGIONAL, AND GLOBAL OBSERVATION SYSTEMS.</b>						
<b>CEO Performance Measure: Number of regions in which capacity was built to address coastal hazards and other weather and water conditions</b>						
IOOS Communication, Coordination, and Administration	Coordinate NOS IOOS Requirements contract and process.	CIAS	All	CO-OPS/NDBC	CSC	Q1
Support for IOOS Regional Associations	Develop and implement needs assessments covering 11 RAs	HD	GIS I&D, CLS, CMS Ops, PSC, Regional Representatives	CO-OPS, IPO, OCS, NGS, OCRM, NCCOS Sea Grant NODC, NGDC, NCDC, NDBC	CSC	Q4
	<b>Coordinate NOS IOOS requirements process and analyze existing regional needs assessments to work with RAs to address technical capability and capacity issues within regions.</b>	HD	CIAS		NOS	Q4
<b>CEO Performance Measure: Number of data management components in process for integration into IOOS DMAC</b>						
Support for IOOS Regional Associations	Conduct a regionally focused workshop to determine the best approach(es) to Web-based inventories of regional observing assets.	CMS Ops, CIAS	GIS I&D, CLS, CMS Ops, PSC, Regional Representatives	CO-OPS, IPO, OCS, NGS, OCRM, NCCOS Sea Grant NODC, NGDC, NCDC, NDBC	CSC	Q4
Support for IOOS Regional Associations	Participate in planning and supporting Gulf of Maine Ocean Data Partnership projects, including delivery of appropriate CSC data and /or training.	CIAS	GIS I&D, CLS, CMS Ops, PSC, Regional Representatives	CO-OPS, IPO, OCS, NGS, OCRM, NCCOS Sea Grant NODC, NGDC, NCDC, NDBC	CSC	Q4

Project Title	Milestones	Lead Program Area	Other CSC Programs Involved	NOAA Partners	Type	Fiscal Qtr
IOOS Applications Development	Facilitate USGS participation in IOOS data sharing efforts .	CIAS	GIS I&D, CRS, LCR, CIS ops, Communications, Regional Representatives	NOAA Chesapeake Bay Office, CSDLNDBC	CSC	Q4
IOOS Applications Development	Document technologies, methodologies, and lessons learned for making data available for IOOS.	CIAS	GIS I&D, CRS, LCR, CIS ops, Communications, Regional Representatives	NOAA Chesapeake Bay Office, CSDLNDBC	CSC	Q4
IOOS Standards and Interoperability Support	Submit best practices report from IOOS data best practices workshop (variable TBD) to Ocean.US/DMAC with the intent of having them adopted for use and improvement by the IOOS community.	CIAS	GIS I&D, CRS, LCR, CIS ops, CLS, PSC	CO-OPSNODC/N CDDCNDBC	CSC	Q4
IOOS Standards and Interoperability Support	Implement and test data transport services for specific IOOS data variables and make them available for implementation (with support from CSC) to interested IOOS partners and stakeholders.	CIAS	GIS I&D, CRS, LCR, CIS ops, CLS, PSC	CO-OPSNODC/N CDDCNDBC	CSC	Q4
IOOS Standards and Interoperability Support	Develop an IOOS data community web page so data users and data providers can understand, find, and ultimately implement IOOS data sharing tools and techniques.	CIAS	GIS I&D, CRS, LCR, CIS ops, CLS, PSC	CO-OPSNODC/N CDDCNDBC	CSC	Q3
IOOS Standards and Interoperability Support	Conduct an IOOS data best practices workshop focused on a variable to be determined.	CIAS	GIS I&D, CRS, LCR, CIS ops, CLS, PSC	CO-OPSNODC/N CDDCNDBC	CSC	Q4
	<b>Work with NOAA, IOOS Data Management and Communications (DMAC) efforts, and regional partners to initiate routine data management best practices through organized workshops.</b>	CIAS			NOS	Q3, Q4
<b>CEO Performance Measure: Facilitate the national implementation of IOOS in conjunction with Ocean.US and developing Regional Associations</b>						
IOOS Communication, Coordination, and Administration	Administer grants and cooperative agreements for the COTS program and nascent Regional Associations (obligations Q2 target 11 RA & 3 COTS awards; Q3 target 5 COTS awards; Q4 target 6 COTS awards).	CIAS	All	CO-OPSNDBC	CSC	Q4

Project Title	Milestones	Lead Program Area	Other CSC Programs Involved	NOAA Partners	Type	Fiscal Qtr
IOOS Communication, Coordination, and Administration	Coordinate administration and interactions with Ocean.US and other federal agencies for IOOS planning and implementation.	M&B	All	CO-OPSNDDBC	CSC	Q4
IOOS Communication, Coordination, and Administration	Administer other IOOS-related grants and agreements (i.e., NOPP grants and agreements, and others).	CIAS	All	CO-OPSNDDBC	CSC	Q4
IOOS Communication, Coordination, and Administration	Assist with NOS ICOOS spending plan and execution.	M&B	All	CO-OPSNDDBC	CSC	Q4
IOOS Communication, Coordination, and Administration	Conduct targeted outreach (at conferences, workshops, etc.) relative to IOOS, Regional Associations, and regional interoperability (targets Q1-Q4).	CIAS	All	CO-OPSNDDBC	CSC	Q4
	<b>Administer grants and cooperative agreements for the COTS program, nascent Regional Associations, and other related agreements (i.e., NOPP, Ocean.US).</b>	CIAS			NOS	Q2, Q3, Q4
<b>NOAA Strategic Performance Objective: REDUCE UNCERTAINTY ASSOCIATED WITH WEATHER AND WATER DECISION TOOLS AND ASSESSMENTS.</b>						
<b>CEO Performance Measure: Number of regions in which capacity was built to address coastal hazards and other weather and water conditions</b>						
Geospatial Technical Assistance to the Federal Emergency Management Agency for Preparedness and Mitigation	Maintain and update the Hurricane Planning and Impact Assessment Web site by scanning, cataloging, and posting documents provided by FEMA.	GIS I&D		CO-OPSOST, OCWWS	CSC	Q4
Hazard Assessment Tools	Complete the Open Source Hazards Data Viewer in partnership with the Department of Homeland Security's Federal Emergency Management Agency.	PSC	GIS I&D		CSC	Q4

Project Title	Milestones	Lead Program Area	Other CSC Programs Involved	NOAA Partners	Type	Fiscal Qtr
	Provide support to FEMA before, during, and after a coastal hazard to ensure emergency practitioners know about NOAA data and how to use it to assist them in planning, response, and recovery efforts. This includes developing and delivering a tutorial to FEMA that provides methods for acquiring and using NOAA geospatial data in a Geographic Information System.	I&D	M&B		NOS	Q1, Q4
<b>NOAA Strategic Performance Objective: ENHANCE ENVIRONMENTAL LITERACY AND IMPROVE UNDERSTANDING, VALUE, AND USE OF WEATHER AND WATER INFORMATION AND SERVICES.</b>						
<b>CEO Performance Measure: Number of CEO-related meetings, courses, and material available and accessible to decision makers</b>						
Pacific Risk Management Ohana (PRiMO) Support and Participation	Convene the fourth annual Pacific Risk Management 'Ohana (PRiMO) meeting to sustain and enhance communication, collaboration, and partnerships among various national, and regional agencies, institutions, and organizations involved in risk management-related programs and activities throughout the Pacific Region.	PSC	GIS I&D	OCS, NGS, OR&R Sea Grant, NCDC, NCDDC, NOAA Integrated Environmental Applications Information Center (NIEAIC) PI Regional Headquarters, International Tsunami Info. Center, PI Weather Forecast Offices	CSC	Q3
Coastal Hazards Outreach and Training	Plan and co-host the Vulnerability Assessment Techniques V (VAT V) Workshop for coastal hazards managers.	GIS I&D	CLS		CSC	Q3
Disaster Resiliency	Organize and participate in session on disaster resilience communities at the The Annual Hazards Research and Applications Workshop in 2006 and begin to define and measure resiliency with the goal of creating a resiliency index	GIS I&D	HD, LCR, CLS		CSC	Q4
Project Design and Evaluation	Deliver at least 10 PDE trainings for CSC audiences that request and agree to host locally.	CLS	CLS	OCRM Sea Grant	CSC	Q2, Q4

Project Title	Milestones	Lead Program Area	Other CSC Programs Involved	NOAA Partners	Type	Fiscal Qtr
Process and Content Training	Deliver 7 trainings (process and content) to a total of 140 d/makers representing at least 5 states	CLS	HD		CSC	Q2
General Conference, Workshop, and Meeting Support	Provide meeting planning and logistical support to 7 meetings and workshops to support a total of 175 d/makers representing at least 5 states	CLS	All	OCRMNCEP, NHC	CSC	Q2
Process and Content Training	Deliver 8 trainings (process and content) to a total of 160 d/makers representing at least 5 states	CLS	HD		CSC	Q4
General Conference, Workshop, and Meeting Support	Provide meeting planning and logistical support to 8 meetings and workshops to support a total of 200 d/makers representing at least 5 states	CLS	All	OCRMNCEP, NHC	CSC	Q4
	<b>Engage CZM, emergency management, floodplain managers, and others in data, hazards, and surge related workshops, conferences, courses, and new curricula.</b>	CLS	HD, I&D		NOS	Q2, Q4
Newsletter	Publish three issues of the newsletter				CSC	Q2
Newsletter	Publish three issues of the newsletter				CSC	Q4
	<b>Outreach materials developed and delivered (publications, Web sites, informational products).</b>	Communications			NOS	Q2, Q4

## ACRONYMS

AA	Assistant Administrator
AHPS	Advanced Hydrologic Prediction Service
AOP	Annual Operating Plan
B-WET	Bay Watershed Education and Training
CAC	Civil Applications Committee
C-CAP	Coastal Change Analysis Program
CDMP	Climate Database Modernization Program
CEO	Coasts, Estuaries, and Oceans
CGS	Coastal Geospatial Services
CIAS	Coastal Information and Application Services
CLS	Coastal Learning Services
CMRP	Coastal and Marine Resources Program
CMS	Coastal Management Services
CO-OPS	Center for Operational Oceanographic Products and Services
COTS	Coastal Observation Technology System
CRP	Community-based Restoration Program
CRS	Coastal Remote Sensing
CSC	Coastal Services Center
CWISE	Climate and Weather Impacts on Society and the Environment
CZIC	Coastal Zone Information Center
CZM	Coastal Zone Managers
DHS	Department of Homeland Security
DMAC	Data Management and Communications
DO	Director's Office
DOC	Department of Commerce
FEMA	Federal Emergency Management Agency
FGDC	Federal Geographic Data Committee
FTE	Full-Time Equivalent
FY	Fiscal Year
GIS	Geographic Information System
GIS I&D	Geographic Information System Integration and Development
GMD	Grants Management Division
HAB	Harmful Algal Bloom
HD	Human Dimensions
HSOC	Homeland Security Operations Center
HURREVAC	Hurricane Evacuation software

ICC	Incident Coordination Center
IOOS	Integrated Ocean Observing System
IPO	International Program Office
IT	Information Technology
LCR	Landscape Characterization and Restoration
LIDAR	Light Detection and Ranging
M&B	Management and Budget
MIS	Management Information System
NAO	National Audit Office
NCBO	NOAA Chesapeake Bay Office
NCCOS	National Centers for Coastal Ocean Science
NCDC	National Climatic Data Center
NCDDC	National Coastal Data Development Center
NCEP	National Centers for Environmental Prediction
NDBC	National Data Buoy Center
NEMO	Nonpoint Education for Municipal Officials
NERR	National Estuarine Research Reserve
NESDIS	National Environmental Satellite, Data, and Information Service
NGS	National Geodetic Survey
NHC	National Hurricane Center
NMFS	National Marine Fisheries Service
NMS	National Marine Sanctuaries
NOAA	National Oceanic and Atmospheric Administration
NIOT	NOAA Integrated Observations Team
NODC	National Oceanographic Data Center
NOPP	National Ocean Partnership Project
NOS	National Ocean Service
NSDI	National Spatial Data Infrastructure
NSGIC	National States Geographic Information Council
N-SPECT	Nonpoint Source Pollution and Erosion Comparison Tool
NWFSC	Northwest Fisheries Science Center
NWS	National Weather Service
OAR	Office of Oceanic and Atmospheric Research
OCRM	Office of Ocean and Coastal Resource Management
OCS	Office of Coast Survey
OCWWS	Office of Climate, Weather, and Water Services
OFA	Office of Finance and Administration
OGC	Office of the General Counsel

OGP	Office of Global Programs
OHD	Office of Hydrologic Development
OHC	Office of Habitat Conservation
ORA	Office of Research and Applications
ORR	Office of Response and Restoration
OST	Office of Science and Technology
PDE	Project Design and Evaluation
PNW	Pacific Northwest
PPI	Program Planning and Integration
PRiMO	Pacific Risk Management `Ohana
PR	Protected Resources
PSC	Pacific Services Center
RFP	Request for Proposals
RRCC	Regional Recovery Coordination Centers
SCREAM	Southern California Riparian Ecosystem Assessment Model
SF	Sustainable Fisheries
SLOSH	Sea, Lake, and Overland Surge from Hurricanes
SPO	Special Projects Office
S&T	Science and Technology
TBD	To be determined
TPC	Tropical Prediction Center
USACE	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey
VAT	Vulnerability Assessment Techniques
WFO	Weather Forecast Office
WWW	World Wide Web