

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

**Fiscal Year 2000**

## **About This Document**

This document is the Annual Operating Plan (AOP) for program activities of the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center (Center) in fiscal year 2000. It is primarily an internal NOAA document, but is distributed to a range of partners. This document is the result of an integrated planning process, and provides information for the reader on the Center's mission, organization, FY 2000 program emphases, and specific project-oriented deliverables. Most of the activities described will be undertaken in collaboration with partners from the NOAA line offices — National Ocean Service (NOS), National Environmental Satellite, Data and Information Service (NESDIS), Office of Oceanic and Atmospheric Research (OAR), National Marine Fisheries Service (NMFS), and National Weather Service (NWS) — and other public and private coastal resource management and business development organizations.

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NOAA COASTAL SERVICES CENTER

FISCAL YEAR 2000 ANNUAL OPERATING PLAN CONTRACT

This plan represents an agreement among the National Oceanic and Atmospheric Administration (NOAA) Assistant Administrators for: Ocean Services; Sustainable Fisheries; Environmental Satellite, Data and Information Services; Oceanic and Atmospheric Research; and Weather Services, concerning the program and management operations of the NOAA Coastal Services Center during fiscal year 2000.

  
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# **1. Introduction**

## **1.1. Mission and Operating Principles**

The mission of the NOAA Coastal Services Center is to foster and sustain the environmental and economic well being of the coast by linking people, information, and technology.

Established in 1994, in Charleston, South Carolina, the Center works with clients to develop tools and techniques to bridge the gap between science and coastal resources management, provide access to useful data and information, and promote sustainability through training and capacity-building services. Clients of the Center include coastal resource managers, policy makers, academic institutions, federal and state scientists, non-governmental organizations, coastal and marine educators, and private business interests.

The Center, as guided by four operating principles is:

- oriented to clients
- focused on results
- committed to partnerships
- national in scope yet local in approach

Current program directions reflect the Center's primary interest in addressing priority issues identified by clients and partners, Congress, the administration, the Department of Commerce, and NOAA-wide strategic planning teams. The Center's thematic emphases include coastal habitat; coastal hazards; data, information and technology access and use; and capacity building. Products and services are tailored primarily to meet the needs of state and local coastal resource managers. As part of the emphasis on coastal issues, the Center pursues strategies that improve the general understanding of, as well as the ability to manage, protect, and utilize valuable coastal resources.

## **1.2. Capabilities**

The Center has expertise in areas that are critical for assisting coastal resource managers with technical, information, and management needs, including:

- Application of social science, evaluation, survey, and customer interaction skills, including support of coastal management fellowships and other state coastal management initiatives.
- Publishing a bi-monthly trade journal, *Coastal Services*, for coastal resource managers.
- Access to products, data, publications, tools, and information for coastal areas via Internet and CD-ROM technologies.

- ❑ Specialized training to develop state and local capacities for: using advanced technologies and geographic information systems (GIS); achieving compliance with Federal Geographic Data Committee (FGDC) standards and metadata requirements; applying process-oriented skills to tasks such as conducting a needs assessment meeting, facilitation, mediation, and leading a public meetings; implementing hazard mitigation techniques; and improving the general expertise of coastal zone practitioners.
- ❑ Application of GIS technologies to management of coastal resources and protected areas, including issues such as ocean governance, coastal hazards, habitat mapping and characterization, and beach mapping.
- ❑ Coastal hazard risk and vulnerability assessment, planning assistance, and training, including the development of interactive decision-based tools and modeling techniques for hazard planning and mitigation.
- ❑ Creation, as appropriate, of imagery derived products from national technical means resources.
- ❑ Watershed management support through creation of restoration plans, information syntheses, and integration of watershed-level ecological modeling into GIS platforms.
- ❑ Identification of emerging technologies for improved coastal resources management and commercialization, including development of methodologies and physical capacities to assess and test technologies and sensors for environmental monitoring, response, and restoration.
- ❑ Analysis and interpretation of satellite- and aircraft-derived imagery to detect temporal and spatial changes in land cover, aquatic vegetation, and benthic resources.
- ❑ Development of aircraft and satellite-borne remote sensing techniques and products supporting the monitoring and tracking of harmful algal blooms, coastal pollution and eutrophication, coastal ocean habitat trends, and coastal topography and erosion.

### **1.3. Philosophy and Organization**

The Center approaches project and service design from the customer's perspective. Although national in scope, the Center takes a local approach to problem solving and capacity building that incorporates customers' site-specific needs and circumstances. Customer input is solicited for identifying and designing programs and projects through surveys, needs assessments, 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 end-users to leverage resources and ensure buy-in.

The Center includes personnel from throughout NOAA (with supervision from multiple line offices) and benefits from a steady stream of talent from other agencies, universities, non-profits, the private sector, and state natural resource management authorities. Federal employees

account for about one-third of total personnel, enabling the Center to react effectively to changing program priorities. To ensure meaningful cross-organizational planning, execution, and personnel management, the Center's annual operating plan is developed as a joint effort of the NOAA line offices, and signed by the five NOAA Assistant Administrators. The Center is organized into the Director's Office (DO) and four service areas, with additional breakdown by program areas.

- *Director's Office.* The DO is responsible for general management, administration, strategic and operational planning, partnership building, evaluation, and budget oversight. The DO ensures that the Center conducts program activities that are consistent with its stated mission, integrates its efforts with partners, and is responsive to NOAA leadership.
- *Resource Management Services.* Resource Management Services (RMS) is responsible for business operations. RMS ensures that the Center remains in compliance with federal regulations, and is the Center's liaison with the NOS Management and Budget Office, as well as the Eastern Administrative Support Center (EASC) in Norfolk, Virginia. RMS conducts its activities through three program areas:

Administration - Administration houses the Financial Management Center and is responsible for directing the Center's budget execution and financial accounting and control activities. Operational direction is provided for all management support programs in personnel, workspace allocation, personal property, procurement, grants management and audits.

Network Computer - This program designs and maintains the Center's local and wide area networks (LAN/WAN). Responsibilities include preparation of the Information Technology (IT) Plan, management of a network inventory of over 600 items, maintenance of the firewall security system, and serving of all desktop PCs and UNIX workstations that access UNIX, NT, and MAC server resources on a mixed Gigabit, 100BaseTX and 10BaseT Ethernet network. This program also provides telecommunications support to NOS, NOAA, and DoC, and video conferencing support for the Center and other federal field sites.

Facilities and Logistics - Facilities and Logistics provide technical management of the Center's real property and oversight of all travel requirements. The Center currently owns two buildings (50,000 sq ft), and this program ensures that all staff is supported with an energy efficient, safe, secure and clean environment. Activities include facilities planning, maintenance of vehicles, management review of all interagency agreements, and domestic and international travel coordination.

- *Coastal Management Services.* Coastal Management Services (CMS) helps develop the abilities of state and local coastal resource managers and planners to perform their duties. Working with the resource management community and the other Center service areas, CMS facilitates management assistance, increases communication and understanding between the Center and its clients, and provides customized training and meeting planning. CMS conducts its activities through three program areas:

Outreach - Outreach builds relationships with the coastal resource management community, provides services to help ensure the Center's products meet client needs, and offers opportunities for the development of future coastal management professionals. Activities include professional and educational development, management assistance, program development, and coordination of special projects.

Training Institute - The Training Institute (TI) serves as a resource for specialized training assessment, design and delivery, and professional meeting planning and logistics. TI also provides process consultation and facilitation services to the coastal management community as well as opportunities for professional development.

Communications - Communications provides public and media relations services, special event planning, brochure and display development, multi-media presentations, and graphics, editing and writing support for external clients and Center staff.

- *Coastal Information Services.* Coastal Information Services (CIS) houses the Center's data management and analysis, and product development capabilities. Scientific and technical capabilities include satellite- and aircraft-based coastal remote sensing, coastal change analysis, GIS development and application, Internet-based coastal information accessibility, ecological characterization, watershed modeling, and GIS-based risk and vulnerability assessment of coastal hazards. CIS focuses on developing and providing access to broad-based information and technology tools for coastal resource managers. CIS conducts its activities through five program areas:

Coastal Change Analysis Program - The Coastal Change Analysis Program (C-CAP) uses remote sensing to classify land cover of wetland habitats and adjacent uplands, and coastal submerged habitats (aquatic vegetation, coral reefs and other benthic resources). Subsequent classifications are used to document change and help coastal resource managers understand the consequences of change.

Coastal Remote Sensing - The Coastal Remote Sensing (CRS) program provides coastal resource managers with practical data products utilizing the latest technology and developments in remote sensing. CRS identifies new or under-utilized remote sensing technologies, and develops remote sensing data products that aid decision-making needs in the coastal and marine environment.

Landscape Characterization and Restoration - The Landscape Characterization and Restoration (LCR) program identifies key management issues for watersheds, and examines how interrelationships among ecology, land use, demographics, and socioeconomic trends affect those issues. LCR helps coastal resource managers include knowledge of ecosystem processes in management, regulatory and land-use planning decisions.

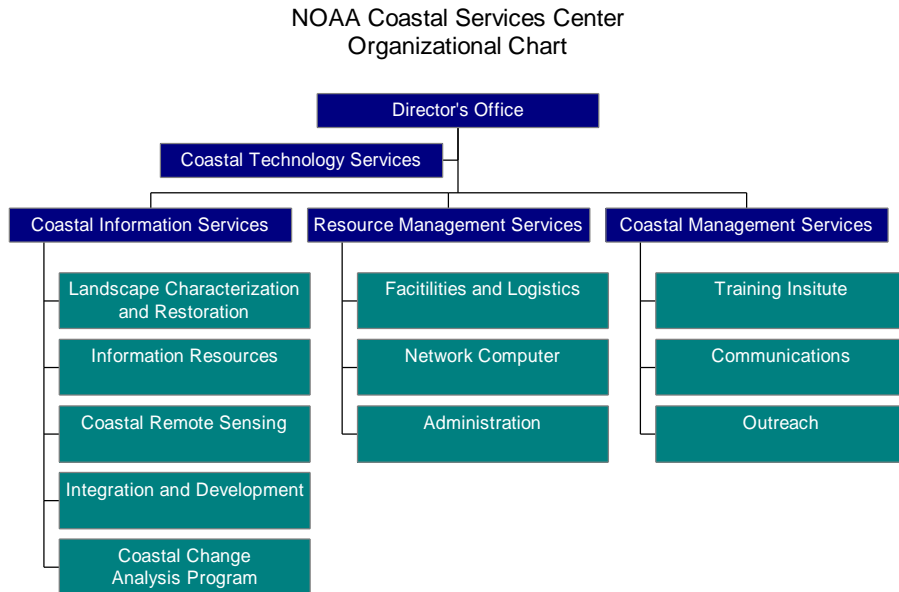
Integration and Development - The Integration and Development (I&D) team plays a key role in many of the Center's projects. This group packages data into a format (primarily GIS-based) that is easy for the coastal resource manager to use. The I&D



program supports the Center's coastal hazards and habitat activities, and also provides spatial analysis training, database programming and technical support.

Information Resources - The Information Resources (IR) program is responsible for providing access to data, products and information for coastal resource managers and the public. Through IR, the Center provides web services and FGDC metadata training. IR maintains a library, the Coastal Zone Information Center (CZIC) collection, and the Coastal Information Directory (CID), which is an Internet-based, metadata-compliant data search tool.

- ❑ *Coastal Technology Services.* Coastal Technology Services (CTS), overseen by the DO, works to bring new and under-utilized technology out of the laboratory and into the hands of the coastal resource manager. CTS delivers expertise in technology transfer and commercialization, and assists scientists with important steps in technology identification and assessment, including demonstration, testing, verification, evaluation and marketing.



#### 1.4. Development and Utilization of the AOP

The Center employs a Management Information System (MIS) to support the development of information for Center and NOS annual operating plans. The Center's branch chiefs and program managers consider the following in developing and justifying projects:

- 1) support of the mission;
- 2) consistency with operating principles;
- 3) support of the Center's primary client base – the coastal resource manager;
- 4) collaboration with other NOAA line offices and NOS programs in serving the primary client base; and
- 5) execution of work milestones in NOAA Implementation Plans.

During the project formulation process, the Center works closely with clients to ensure the relevance and effectiveness of proposed efforts, and with other NOAA line offices to focus the broader capabilities of the agency on coastal resource issues and client needs. The draft AOP is then submitted for review and evaluation by clients and the NOAA Assistant Administrators. After incorporating changes, the AOP is signed by all five Assistant Administrators. Throughout the year, the Center's managers use the AOP as a performance-tracking and decision-making tool. Internal quarterly reviews are conducted to gauge the status of work milestones included in the AOP, and to discuss and act on significant tactical and strategic issues.

## 2. FY 2000 Program Priorities

In FY 2000, the Center will continue to invest in strategic areas of importance to the coastal resource management community, enhance internal capabilities to develop and deliver improved products, and build the capacity of coastal managers to use these products, and assist NOS with the development of a regional concept of customer interaction and service. The Center will play a key role in advancing several NOS synergy initiatives, including spatial data infrastructure, all-hazards response, coral ecosystems, and nutrient pollution. Significant program emphases in FY 2000 will include:

- *Protected Areas GIS, Ocean Governance, and Sustainable Development GIS Support.* The Center, in cooperation with the Office of Ocean and Coastal Resource Management (OCRM), will pursue the third year of work to establish GIS capabilities (hardware, software, base data layers, and training) in the nation's system of National Estuarine Research Reserves (NERR) and National Marine Sanctuaries (NMS). The Center also will complete the development of a web-based GIS decision support tool for ocean planning and governance in the southeastern U.S. In addition, the Center will work with an existing local sustainability project in Tillamook County, Oregon to develop a "real time" GIS-based monitoring capability to track progress and measure success in a multi-disciplinary watershed management project. This project is aimed at improving water quality, enhancing fish habitat, minimizing environmental and economic damage caused by flooding, and improving general economic conditions in a coastal water-dependent community.
- *Coastal Hazards.* The Center is continuing its programmatic support of the administration's Natural Disaster Reduction Initiative. The Center is directing efforts toward the assessment of risk and vulnerability to communities from coastal hazards, including the delivery of community-based hazard mitigation training. The Center will finalize the development of prototype decision support GIS products for North Carolina and Ohio, and begin to design a pilot web-based, national coastal risk atlas in partnership with the U.S. Geological Survey (USGS), the Federal Emergency Management Agency (FEMA), and other organizations. To improve earthquake-tsunami mitigation and preparedness for Pacific Northwest coastal port and harbor communities, the Center will develop, test and evaluate a planning model through collaborative efforts with private sector interests, government agencies, and educational institutions. The Center will continue to work with multiple partners to develop a pilot harmful algal bloom information system that integrates remote sensing and *in-situ* data. In

addition, the Center will train a private contractor to produce and distribute digital vectorized shoreline data for states.

- *Ecological Characterization and Watershed Modeling.* The Center will continue to support characterization work in ACE Basin, South Carolina; Kachemak Bay, Alaska; and Rookery Bay, Florida, and will initiate a new characterization project in a northeastern U.S. watershed. In addition, the Center will focus on efforts to link management actions to habitat quantity and quality. This work is underway for terrestrial habitats, but little is being done on seascape habitats, coastal waters, and Great Lakes. Three steps toward addressing this information gap are: 1) developing protocols for characterizing seascapes, regardless of water depth or visibility; 2) characterizing how each habitat type within a seascape affects ecosystem functions; and 3) integrating seascape and landscape characterizations into tools that allow coastal managers to critically evaluate the ecological and socioeconomic implications of management options. Critical to accomplishing this work, as well as distributing products, will be the formation of a practitioners communications network that allows geographically distributed expertise to work together on problems and applications. The principal data products will be maps of historic and current habitats that show the extent and type of habitat, as well as portraying the functions and services those habitats provide to coastal ecosystems and the public. The information will be searchable and accessible in standard GIS formats and distributed through the Internet and other electronic formats.
- *Training.* For FY 2000, the Center will have three areas of emphasis for training activities – technical courses, coastal management courses, and process skill courses. All of these capacity-building activities are targeted towards the state and local coastal management community, and some will engage NOAA partners and customers.
  - *Technical Courses* include information management, GIS, remote sensing and metadata delivered at multiple levels through seminars, hands on overviews, multi-day use of the technology, and high-end computer programming.
  - *Coastal Management Courses* include hazards risk and vulnerability tools and techniques, the public trust doctrine and protecting the public’s use and access rights, coastal zone management for practitioners, and coastal science for lawyers.
  - *Process Skills Courses* include initiating the consensus process on contentious coastal resource issues, assisting with communications, meeting management skills and consensus-building for coastal scientists, and conducting training needs assessments for coastal educators.
- *Coastal Change Analysis Cooperatives with States.* The Center will continue to support cooperative, capacity-building partnerships with states to improve the development, utilization and management of coastal change analysis information. The C-CAP program will assist in the mapping of the benthic habitat of the main eight Hawaiian Islands using aerial photography, as well as adjacent terrestrial landscapes using satellite and other imagery. In addition, the DO will complete an extensive review of the C-CAP program to evaluate its effectiveness and responsiveness to clients, and determine future directions.

- *Digital Coast.* Digital Coast is an integration, standardization, and data access initiative that will provide organized, seamless, digital spatial data that resource managers and the navigation community need to make informed decisions about coastal and ocean regions. Digital Coast is the NOAA complement to the Administration's Community Federal Information Partnership. The initiative calls together NOAA and other federal agencies to work with states, the private sector and academia, to use procedures established by the FGDC to organize spatial data. Agencies and users will incorporate standard collection protocols so that organizations can readily collect and share data. Federal agencies will develop financial incentives to assist states in producing data. Mapping responsibilities will be shifted to local levels and private industry, and academia will assist in the research and development of new cost-effective means of collecting and distributing data. Digital Coast will support a more efficient environmental permit and regulatory review process; requirements of local, state and regional resource management agencies; development of future decision-support and modeling systems; safe and efficient movement of cargo through our nations ports; recreational boating; and coastal hazards vulnerability reduction.
- *Human Dimension.* The Center works to develop tools and products that integrate scientific and resource management information. In FY 2000, the Center will develop pilot projects that further advance and integrate, in particular, social sciences with resource management tools and decision-making techniques. Activities will include exploring opportunities to apply additional social science information to spatial tools, and address issues related to multiple use, beliefs and values, and policy and administrative footprints. Specific mechanisms will be explored for establishing linkages with environmental and philanthropic NGOs on resource management issues.
- *Building the Nation's Future Natural Resource Managers.* The Center will continue to support the NOAA Coastal Management Fellowship Program. The Center also will develop other opportunities for professional and educational development with NERR sites, NGOs, and minority serving institutions. These programs will collaboratively support community restoration projects with the National Marine Fisheries Service, and cross-training of ecologists and social scientists.

### 3. Planned Accomplishments

The program information table utilized in the FY 2000 Center Annual Operating Plan is the result of a consolidated planning process. Objectives and performance measures are integral components of the NOAA long-term strategic goal to Sustain Healthy Coasts (SHC). The milestones represent the significant work outcomes to be pursued in support of the goal and objectives, and are derived from both the FY 2000 to 2004 NOAA Implementation Plan and the Center's more detailed internal planning process. Each milestone lists the corresponding Center service and program area, NOAA partner, and completion date. All milestones are assumed to be Center-level unless specifically noted as SHC-level or NOS-level in bold and parenthesis.

<b>SHC Objective 1</b>	<b>Protect, conserve and restore coastal habitats and their biodiversity</b>			
<b>Performance Measure</b>	<b>Number of environmental technologies and tools developed that enhance monitoring, assessment, management, and restoration of coastal habitats</b>			
<b>Milestone</b>	<b>Service Area</b>	<b>Program Area</b>	<b>NOAA LO Partner</b>	<b>Quarter Due</b>
1.6.1.3 Final CD-ROM version of ACE Basin Characterization	CIS	LCR	NESDIS NOS/OCRM	Q2
3.0.0.1 Workshop matching technologies and user needs	CTS		NMFS OAR NOS/ORR	Q3
1.6.1.5 Final CD-ROM version of Environmental Characterization of the Kachemak Bay, AK watershed ( <b>SHC</b> )	CIS	LCR	NOS/OCRM	Q4
3.0.0.5 Complete annual progress report of pilot technology projects and linkages ( <b>SHC</b> )	CTS		NMFS	Q4
3.0.0.5 Conduct performance/cost assessments of promising environmental technologies. ( <b>SHC</b> )	CTS		NMFS	Event Driven
<b>Performance Measure</b>	<b>Percent of U.S. coastline with habitats characterized and mapped</b>			
<b>Milestone</b>	<b>Service Area</b>	<b>Program Area</b>	<b>NOAA LO Partner</b>	<b>Quarter Due</b>
1.2.1.15 Produce documentation of methods and results and provide final report and posters illustrating land cover and shoreline comparisons for each of 10 sites.	CIS	CCAP		Q3
1.2.1.4 Produce final land cover change analysis maps for four Landsat Thematic Mapper scene areas of coastal North Carolina	CIS	CCAP	NMFS	Q2
<b>SHC Objective 2</b>	<b>Promote clean coastal waters to sustain living marine resources and ensure safe recreation, healthy seafood, and economic vitality</b>			
<b>Performance Measure</b>	<b>Number of NERR sites, and National Marine Sanctuaries with capabilities upgraded to protect and enhance coastal water quality</b>			
<b>Milestone</b>	<b>Service Area</b>	<b>Program Area</b>	<b>NOAA LO Partner</b>	<b>Quarter Due</b>

1.5.1.4 Provide GIS and metadata training to National Marine Sanctuary field staff (NOS)	CIS	I&D, IR	NOS/OCRM NOS/SPO	Q1
1.5.1.3 Create high-resolution, digital elevation model for selected NERRs in support of PAGIS	CIS	I&D		Q4
1.5.1.4 Provide GIS support to Sustainable Seas Expedition activity	CIS	I&D	NOS/OCRM NOS/SPO	Q4
2.2.0.25 Forward recommendations of the Working Group to the Channel Islands NMS Advisory Council (NOS)	CMS	TI	NOS/OCRM	Q4
3.0.0.3 Provide implementation plan for a national in-situ sensor testbed program	CTS		NOS/OCRM	Q4
<b>Performance Measure</b>	<b>Number of coastal and Great Lakes states provided with improved predictive capabilities and understanding of environmental processes</b>			
<b>Milestone</b>	<b>Service Area</b>	<b>Program Area</b>	<b>NOAA LO Partner</b>	<b>Quarter Due</b>
1.3.1.2 Conduct a reflected GPS salinity field experiment	CIS	CRS		Q2
1.6.1.2 Complete GIS-based model of wetland function (SHC)	CIS	LCR	NMFS NOS/ORR	Q4
1.3.1.2 Conduct a joint analysis of aircraft and ground truth water quality measurements with South Florida Water Management District to determine management applications of airborne water quality measurements.	CIS	CRS		Q4
3.0.0.2 Establish environmental monitoring technologies testbed center	CTS			Q4
<b>Performance Measure</b>	<b>Number of U.S. coastal regions with systems to predict and reduce impacts of Harmful Algal Blooms</b>			
<b>Milestone</b>	<b>Service Area</b>	<b>Program Area</b>	<b>NOAA LO Partner</b>	<b>Quarter Due</b>
1.3.1.5 Add 1998-2000 imagery and data associated with West Florida HAB events to a web-accessible information system (NOS)	CIS	CRS	NESDIS NOS/NCCOS	Q1
1.3.1.5 Develop an automated, near-real-time harmful algal bloom information system that contains composite spatial data and decision-support tools (SHC)	CIS	CRS	NESDIS NOS/NCCOS	Q3
<b>Objective 3</b>	<b>Foster well-planned and revitalized coastal communities that sustain coastal economies, are compatible with the natural environment, minimize the risk from natural hazards, and provide access to coastal resources for the public's use and enjoyment</b>			
<b>Performance Measure</b>	<b>Number of activities conducted to provide a technically trained work force and environmentally informed citizenry</b>			
<b>Milestone</b>	<b>Service Area</b>	<b>Program Area</b>	<b>NOAA LO Partner</b>	<b>Quarter Due</b>

1.3.1.1 Collect high-resolution topographic LIDAR data along a multi-state section of the coastal U.S. for use in erosion related decisions by coastal resource managers ( <b>NOS</b> )	CIS	CRS	ONCO/AOC	Q1
1.5.1.5 Train NESDIS contractor in process of shoreline vectorization	CIS	I&D	NESDIS NOS/NGS	Q1
1.5.2.10 Participate in GIS Day on Nov. 19th, 1999	CIS	I&D	NESDIS NOS/NCCOS	Q1
1.4.2.3 Develop search interface with access to selected publications from the Coastal Zone Information Center (CZIC) collection	CIS	IR		Q1
2.1.1.1 Coordinate operation and expand range of Coastal Management Fellowship Program to provide technical assistance, education, and training opportunities in coastal resource management ( <b>SHC</b> )	CMS	Outreach	OAR/SG NOS/OCRM	Q1
2.1.3.7 Finalize the grant opportunity web site and provide a link from the home page	CMS	Outreach		Q1
2.2.0.12 Selection of planning committee for Geo Tools 2001.	CMS	TI		Q3
2.2.0.17 Host meeting with coastal management community to establish framework for CZ 101	CMS	TI	OAR NOS/OCRM	Q1
2.1.1.7 Identify communities/regions for placement of coastal habitat assistantships	CMS	Outreach	OAR NMFS NOS/OCRM	Q2
2.1.3.5 Compile and analyze results from the CCAP customer survey	CMS	Outreach		Q2
2.2.0.6.1 Successful completion of ArcView classes	CMS	TI		Q1 - Q4
1.3.1.1 Convene a workshop on LIDAR processing and applications	CIS	CRS	ONCO/AOC	Q2
1.3.1.7 Provide analysis support for the NOPP funded Coastal Marine Demonstration Project	CIS	CRS	NWS OAR	Q2
1.4.1.1 Present metadata training to Office of Coast Survey managers	CIS	IR	NOS/OCS	Q2
1.5.2.14 Provide status report on participation in NOS Synergy efforts	CIS	I&D	NOS/OCS NOS/NCCOS NOS/NGS NOS/SPO NOS/OCRM NOS/COOPS	Q2
1.5.3.7 Update <i>Introduction to GIS for Managers</i> (1.5 hr) curriculum and add additional datasets and application demonstrations	CIS	I&D		Q2
1.5.3.9 Develop web-based vulnerability assessment training module (joint project)	CIS CMS	I&D TI	NOS/OCRM	Q2

2.1.3.2.1 Draft and finalize needs assessment report following American Samoa visit (NOS)	CMS	Outreach	NOS/OCRM	Q2
2.2.0.9 Successful completion of Program Managers Meeting conference (NOS)	CMS	TI	NOS/OCRM	Q3
1.5.3.9 Deliver NE Region hazards training (joint project) (SHC)	CIS CMS	I&D TI	NOS/OCRM	Q3
2.1.1.1 Coordinate matching workshop and successfully match fellows with projects	CMS	Outreach		Q3
2.1.1.7 Recruit and select graduate students for placement into the Coastal Habitat Assistantship program	CMS	Outreach	OAR NMFS NOS/OCRM	Q3
2.1.3.6 Rollout Coastal Tools web site (NOS)	CMS	Outreach		Q3
2.3.0.3 Print and distribute Coastal Services Center <i>Annual Report</i>	CMS	Comms		Q3
2.2.0.18 Host a session on <i>Lessons Learned from Developing Coastal Institutes</i> at the NERR's site meeting (NOS)	CMS	TI	NOS/OCRM	Q3
1.3.1.4 Produce CD-ROM containing retrospective satellite-based data products for the Gulf of Mexico coastal region (SHC)	CIS	CRS	NESDIS	Q3
1.3.1.2 Produce a technical report on the GPS salinity measurement experiment	CIS	CRS		Q4
1.3.1.6 Collect and submit data from 2 bio-optical cruises as required by the SIMBIOS contract	CIS	CRS	NESDIS NOS/NCCOS	Q4
1.4.1.1 Conduct training on creating FGDC compliant metadata in four workshops presented to coastal data providers	CIS	IR		Q1 - Q4
1.4.1.1 Deliver one train-the-trainers workshop on how to write FGDC compliant metadata for coastal data	CIS	IR		Q4
1.4.1.6 Ensure all Center data and metadata are accessible through NOAA Server, the FGDC Clearinghouse node, and the Coastal Information Directory	CIS	IR	NESDIS	Q4
1.4.1.15 Ensure the Southeastern FGDC Clearinghouse Gateway is operational and available to users throughout FY 2000	CIS	IR		Q4
1.4.1.16 Participate in NOS ESDIM proposal review activities as requested by the NOS Chief Information Officer (CIO)	CIS	IR	NOS/MBO	Q4
1.4.1.8 Participate in and coordinate activities with the NOAA HPCC program as the southeast regional representative	CIS	IR	NOAA/HPCC	Q4
1.4.2.2 Complete cataloging of the Coastal Zone Information Center (CZIC) collection	CIS	IR	NOS/OCRM	Q4



1.5.1.1 Full implementation of a web-based GIS decision support tool for ocean planning and governance for the southeast U.S. (SHC)	CIS	I&D	NOAA/GC NOS/OCRM NOS/OCS	Q4
1.5.1.5 Develop 2 state-based CD-ROMs containing high resolution digital shoreline data (SHC)	CIS	I&D	NESDIS NOS/NGS	Q4
1.5.3.7 Delivery of two GIS programming training classes targeted at state partners, advanced NERR and NMS sites, and selected NOAA staff	CIS	I&D		Q2 Q4
1.5.3.7 Delivery of one <i>Information Management Technology for Executives</i> seminar	CIS	I&D		Q4
1.5.3.7 Deliver four 4-day ArcView GIS classes targeted at CZM community and selected NOAA staff (NOS)	CIS	I&D		Q1 - Q4
2.1.2.5.2 Frame and develop a written strategy for engagement in community development issues	CMS	Outreach	NOS/OCRM	Q4
2.1.3.8 Launch Coral Reef Network Web Site (NOS)	CMS	Outreach	NOS/OCRM	Q4
2.2.0.17 Pilot first two training modules for CZ 101 (NOS)	CMS	TI	OAR NOS/OCRM	Q4
2.2.0.22 Publish final draft of <i>Sea Grant Activity</i> document (NOS)	CMS	TI	OAR	Q4
2.2.0.24 Pilot needs assessment training with NERR educators	CMS	TI	NOS/OCRM	Q4
2.3.0.4 Publish 6 editions of the Center magazine (NOS)	CMS	Comms		Q1 - Q4
2.1.3.2 Conduct outreach meetings, public seminars, marketing, and public relations efforts. (SHC)	CMS	Outreach	NOS/OCRM	Event Driven
2.2.0.1 Provide customized technical training design, guidance and logistical support to state coastal programs, federal agencies and private sector partners (SHC)	CMS	TI	NOS/OCRM	Event Driven
<b>Performance Measure</b>	<b>Cumulative percent of shoreline and inland areas with improved ability to identify extent and severity of coastal hazards</b>			
<b>Milestone</b>	<b>Service Area</b>	<b>Program Area</b>	<b>NOAA LO Partner</b>	<b>Quarter Due</b>
1.5.4.1 Develop a concept paper describing the coastal risk atlas prototype	CIS	I&D	NESDIS NMFS NWS OAR NOS/OCRM NOS/ORR NOS/SPO	Q1

1.5.4.1 Complete a report identifying indicators for nationally ranking community hazard vulnerability (NOS)	CIS	I&D	NESDIS NMFS NWS OAR NOS/OCRM NOS/ORR NOS/SPO	Q3
1.5.4.10 Develop internet-based tool for tracking progress in a local hazards management and habitat restoration project (SHC)	CIS	I&D	NOS/OCRM	Q4
1.5.4.11 Develop GIS-based tsunami-earthquake port/harbor vulnerability assessment product (NOS)	CIS	I&D	OAR/PMEL	Q4
<b>Performance Measure</b>	<b>Number of improved information management tools developed to assist coastal hazard mitigation</b>			
<b>Milestone</b>	<b>Service Area</b>	<b>Program Area</b>	<b>NOAA LO Partner</b>	<b>Quarter Due</b>
1.5.4.1 Conduct an analysis on the economic benefits of vulnerability assessment products	CIS	I&D	NESDIS NMFS NWS OAR NOS/OCRM NOS/ORR NOS/SPO	Q3
1.3.1.1 Develop and deliver a prototype LIDAR-based management tool for evaluation of coastal erosion hazards (SHC)	CIS	CRS		Q4

## **4. Fiscal Year 2000 Budget and Resource Information**

### **4.1. FY 2000 Budget Estimate**

The annual allocation of Center resources to projects and activities is influenced by client and partner needs, strategic objectives of NOAA and the Administration, and guidance from the U.S. Congress. The Center's extensive planning process results in the development of priority projects that address national and local issues of importance to sustaining healthy coastal ecosystems and communities. The Center's budget is apportioned as part of the National Ocean Service budget in the NOAA Operations, Research and Facilities appropriation. Changing priorities or unexpected events during the year may alter spending and project plans. The budget for the Coastal Services Center for FY 2000 is \$15 million.

### **4.2. Staffing Profile**

The Center currently employs over 120 people and is located on the premises of the former Navy facility in Charleston, South Carolina. Over 40 percent of Center employees are full-time federal. Most federal personnel are aligned with NOS, but a number have second-line supervision residing in three of the other four NOAA line offices, as well as the Office of NOAA Corps. The Center's staffing is rounded out with a unique group of grant recipients, fellows, interns, university visitors, intergovernmental personnel actions (IPAs) with state partners, and contractors.

Center personnel hail from multiple disciplines and organizations. Urban and regional planning, geographic information system specialties, marine biology, engineering, oceanography, natural resource science, social science, physics, mathematics, and ecology are some of the technical disciplines represented at the Center. Personnel have been recruited from private industry, state coastal programs, local and state planning offices, NASA, EPA, USACE, CIA, DoD, USDA and various academic institutions.

The Center is participating strongly in the federal Welfare-to-Work program and has received authority to fill four positions. Two currently are on board and one employee has been promoted from the GS-1 to the GS-4 level in less than two years.

## **5. Management Information**

### **5.1. Management Issues**

New Contract for Information Management and Technical Support Services – On September 1, 1999, the Center entered into a new acquisition of services contract with the private sector worth \$15 million over 5 years. The Center must closely monitor the start up and first year performance of this contract, including transition activities, development and execution of program implementation plans, financial control, and interfacing with the on-site management

structure of the contractor. The contract will be reviewed during the 4<sup>th</sup> quarter of FY 2000 in consideration of the first option year.

C-CAP Effectiveness Review – The Center is conducting a formal review of the Coastal Change Analysis Program (C-CAP) to evaluate its mission, relevance, and effectiveness. This objective assessment of C-CAP will help the Center ensure that the program continues to be responsive to state, regional and local coastal resource management needs. The review involves an OMB-approved user survey, extensive data and information analysis, and convening a non-partisan group of experts to make recommendations on the program. Completion is expected in the second quarter.

Strategic Planning – The Center will continue its systematic strategic planning process begun in the third quarter of FY 1999. This highly participatory and inclusive process will strongly incorporate customer views and needs in determining the strategic directions and action plans for the organization over the next five years. The results of the process will be used to make informed decisions on management and organizational issues, program priorities, communications, allocation of resources, and validation of directions with the Center's primary client base. During the third quarter of FY 1999, the Center convened a blue ribbon panel of experts to review the phase I outcomes of this strategic planning process.

## **5.2. Information and Technology Issues**

IT Security: The Center will be addressing two IT security issues – the Center Security Plan and the risk assessment and disaster recovery/contingency plan. The Center will also conduct an IT certification, accreditation and verification review. The Center will be moving all IT resources, except those required to be accessed by the public, behind a Cisco PIX firewall. The firewall will be implemented in the first quarter of FY 2000.

E-mail Implementation: The Center will migrate its e-mail to Netscape by the 1<sup>st</sup> quarter.

### Data Management:

- *Center Data Management Policy* - The Center has developed a data management policy to ensure the quality of products and the usefulness of data for future years. To make certain that data is documented, disseminated and archived properly, the Center has assigned special duties to staff. The Head Librarian, Metadata Specialist, Center Products Clearinghouse Manager, FGDC Clearinghouse Administrator and Data Liaison are required to oversee the data policy. Data will be processed and documented according to FGDC and NOAA requirements, and the metadata made available through NOAA Server, the FGDC Clearinghouse, and the Center's Coastal Information Directory. Whenever possible, links from the metadata to the data are included so users can download or order any data set or product. The Center Library catalogs and archives at least one copy of each publication and electronic product the Center produces. Data, products and publications also are archived in the NOAA Data Centers, NOAA Library, GPO depository stock, and Library of Congress.

- *Data Collection, Documentation and Archiving Activities in FY 2000* - The Center has taken steps to archive all of its original data holdings at the appropriate NOAA Data Center. The Digital Shoreline Files created at the Center with the help of Americorps classes have been sent to NGDC. All of the shoreline map data that will be rescued by the Environmental Data Rescue Program over the next five years will be forwarded to NGDC along with the appropriate metadata. The Center is working with NGS on a database delivery system to deliver the files and metadata to internal and external users via the Internet. Two shipments of profile data collected by the Coastal Remote Sensing Program have been submitted to NODC, with additional shipments scheduled for FY 2000. Landsat Thematic Mapper raw data purchased by C-CAP and GIS-compatible files of seagrass will be sent to NODC. The Center has submitted a proposal to ESDIM to rescue Advanced Very High Resolution Radiometer (AVHRR) data that is not in the NOAA archive. If the proposal is successful, the Center will process the data, create compliant metadata, and forward the files to NCDC for archiving and to the Satellite Active Archive for distribution.

The Center will continue to assist the Office of Coast Survey (OCS) with bathymetry data collection and delivery. Initial efforts are planned to develop a comprehensive bathymetric database for internal and external customers. FY 2000 projects include database design, new software and distributed delivery tests.

The Center, in partnership with OCS and OCRM, is working to create, document and serve via the Internet digital versions of marine boundary data and metadata. Using internal and FGDC funds, the Center and OCS will produce digital versions of Territorial Sea, National Marine Sanctuary and Exclusive Economic Zone (EEZ) boundaries. This project involves other federal agencies, such as the Minerals Management Service, and the Department of Justice and the Department of State.

The Coastal Zone Information Center (CZIC) collection is in the final stages of being cataloged and processed. A complementary project is also underway to scan the most important CZIC documents and make them available on the Internet. This comprehensive collection is unique in the nation. The Center's efforts will allow users access to thousands of documents that previously had limited availability.

### **5.3. Working with Minorities**

The Center will continue to partner with the University of Southern Mississippi in administering the Coastal Management Fellows program, which allows for recent M.S. and Ph.D. level graduates to work on coastal resource management issues in selected states. During FY 2000, the Center will be working to achieve greater minority representation in this program. In addition, the Center will develop minority internship opportunities in collaboration with institutions such as Clark Atlanta University and Morgan State University. The Center will design a community restoration assistantship program in coordination with the National Marine Fisheries Service and the American Fisheries Society to enhance opportunities for minority graduate assistants. In addition to these efforts, the Center will be recruiting for up to 22 full

time equivalent positions through its the NOAA Student Educational Employment Program (SEEP). The Center sees this as an opportunity to infuse its programs with students from diverse backgrounds.

#### **5.4. Diversity**

During FY 2000, the Center will continue actions begun in FY 1999 to adapt NOAA's diversity management process in ways that will promote development of an organizational learning culture. This approach will include a number of strategies:

- ❑ Working to ensure that employees understand and support the mission, goals, and values of NOAA, NOS, and the Center. The Center will complete its strategic planning process during FY 2000 – a process that includes a focus on internal organization and culture issues. A likely outcome of this process is the establishment of a Center team to promote diversity and organizational learning initiatives.
- ❑ Using participatory decision making processes, with shared leadership, when appropriate.
- ❑ Facilitating change through coaching and empowering employees.
- ❑ Encouraging the introduction of new ideas for continuous improvement. For example, the Center initiated an Employee of the Month program in FY 1999 that serves to recognize the special contributions and attitudes of employees. This activity is employee-managed, and the DO conducts a monthly ceremony to honor the staff.
- ❑ Creating opportunities for learning from all activities and for transferring skills and knowledge gained to others.
- ❑ Utilizing collaborative problem solving approaches by encouraging establishment of integrated, cross-functional teams.

A key element of the Center's diversity objectives for FY 2000 will be to support the restructuring of the NOS Diversity Network. This restructuring effort will result in a stronger tactical approach to accomplishing diversity initiatives throughout NOS. The Center and NOS' International Office will take the lead in developing a strategy for completing the organizational assessment of NOS begun by the NOAA Survey/Feedback/Action (SFA) process, as well as developing a strategy for implementing a process for ongoing organizational assessment and continuous improvement. Phase I of this effort will involve analyzing the data gathered during the SFA process and making recommendations about how NOS can improve in areas of weakness, as well as capitalize on existing strengths. Phase II will focus on examining established NOS policies, practices and procedures, and include focus group discussions and interviews with key organizational leaders. This effort will be closely coordinated with the NOAA Office of Diversity. Through these combined efforts, the Center will take further steps to institutionalize a process for examining and evaluating its organizational practices from a perspective of diversity management.

## **5.5. Employee Development and Training**

Consistent with the aims of NOAA's employee development and training objectives, the Center encourages employees to develop individual Career Enhancement Plans (CEP). Employee development and training issues also will be examined in the broader context of building a learning organization at the Center, as well as continued implementation of the SFA process. By developing and utilizing CEPs, employees will take charge of their professional development goals, while supervisors help provide the environment and resources needed to achieve those goals.

During FY 1999, the Center realized its goal to have 25% of staff engaged as active members of a joint federal/contractor-sponsored Toastmasters International Club, which has facilitated the development of employees' public speaking and representational skills. The Center will continue to support a special Wednesday seminar series that allows for all staff to participate and share their learning. Also during FY 1999, the Center received approval for an employee-initiated, lunch-break yoga class. This activity affords the entire staff the opportunity to refresh both their mind and body, which ultimately benefits the organization.

The Center will continue to participate in the NOS Rotational Assignment Program (RAP). Although in a field location, the Center provided the opportunity for a GS-5 secretarial position to travel to Charleston to assist with the data development of a newly designed personal property inventory system. The participant was from the National Geodetic Survey, and worked with the RMS Administration program. In FY 2000, the Center will use this program to provide additional training opportunities for in-house staff and other NOS offices. Finally, all staff who collect or process data will be trained in documenting data according to FGDC metadata standards.

## **5.6. Validation and Verification**

In an effort to comply with the National Performance Review, the Center employs applied social science research and technical evaluation methods to validate and verify projects and programs throughout the year. Each product or service conducted, such as the release of a CD-ROM or training course, includes an evaluation form. The forms are collected and reviewed by the project staff, trainers and meeting planners to ensure that suggestions are incorporated into the next phase of the project.

In the event that feedback from an evaluation is low, outreach staff will conduct informal reviews to solicit feedback by interviewing individual participants. These interviews are conducted in compliance with the guidelines of the Paperwork Reduction Act. Evaluations inquire about the usefulness of the product or service and ask for the customer's comments about how it may be improved. Before a product such as a CD-ROM is released, the product undergoes extensive reviews by external users to ensure its usability and relevance.

Throughout the year, all projects and programs are reviewed quarterly by program managers to assess whether performance measures will be met. Targets are discussed with upper management for a status update and to resolve any factors impeding progress. Every other week, program managers meet to discuss outstanding issues and to receive feedback from other program areas concerning their challenges.

On a broader scale, the Center conducts a tri-annual customer survey. The questionnaire undergoes a Paperwork Reduction Act review by the Office of Management and Budget to ensure that it does not duplicate any other NOAA-sponsored survey of the same audience. The purpose of the survey is to understand the client's information management needs and capabilities and their resource management responsibilities. The results are used for strategic planning purposes, and for annual planning and project selection processes to ensure that proposed activities meet the needs of the clients.

Finally, the Center is experimenting with processes to review the effectiveness of overall program areas. As noted earlier in this document, the Coastal Change Analysis Program is being reviewed during FY 1999-2000. Programmatic reviews involve a significant component of customer feedback in addition to a review panel analysis of the results. Recommendations are then made to modify the program's mission and outputs to better meet customer needs.



## 6. Appendix – Acronyms

ACE Basin	Ashepoo, Combahee, and Edisto River Basin
C-CAP	Coastal Change Analysis Program
CD-ROM	Compact disk – read-only memory
CEP	Career Enhancement Plan
CIA	Central Intelligence Agency
CID	Coastal Information Directory
CIS	Coastal Information Services
CMS	Coastal Management Services
CONOPS	Concept of Operations
CRS	Coastal Remote Sensing
CTS	Coastal Technology Services
DO	Director’s Office
EASC	Eastern Administrative Support Center
EFH	Essential Fish Habitat
EPA	Environmental Protection Agency
ESDIM	Environmental Services Data and Information Management
FEMA	Federal Emergency Management Agency
FGDC	Federal Geographic Data Committee
FMC	Financial Management Center
FTE	Full-Time Equivalent
GIS	Geographic Information System
HAB	Harmful Algal Bloom
I&D	Integration and Development
IPA	Intergovernmental Personnel Actions
IR	Information Resources
IT	Information Technology
LAN	Local Area Network
LCR	Landscape Characterization and Restoration
L-DART	LIDAR Data Retrieval Tool
LIDAR	Light Detection and Ranging
MMS	Minerals Management Service
NASA	National Aeronautics and Space Administration
NERR	National Estuarine Research Reserve
NESDIS	National Environmental Satellite, Data and Information Service
NGS	National Geodetic Survey
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOS	National Ocean Service
NSDI	National Spatial Data Infrastructure
NWS	National Weather Service
OAR	Office of Oceanic and Atmospheric Research
OCRM	Office of Ocean and Coastal Resource Management

OCS	Office of Coast Survey
RAP	Rotational Assignment Program
RMS	Resource Management Services
SeaBASS	SeaWiFS Bio-Optical Archive and Storage System
SEEP	Student Educational Employment Program
SFA	Survey Feedback Action
SHC	Sustain Healthy Coasts
SIMBIOS	Sensor Inter-comparison and Merger for Biological and Interdisciplinary Oceanic Studies
TI	Training Institute
TM	Landsat Thematic Mapper Satellite
USACE	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey
WAN	Wide Area Network
WWW	World Wide Web