R+D - CS ACE

U.S. Army Engineer Research and Development Center

Cost Management System

25 August 2000

Section I: Business Area Organization

1.01.1 Description

1.011 Business Area Name/Organization:

U.S. Army Engineer Research and Development Center, Corps of Engineers

1.012 Address:

Waterways Experiment Station

Vicksburg, MS 39180-6199

1.013 POCs:

Hanover, NH
603-646-4204

1.01 Mission Statement:

The Engineer Research and Development Center (ERDC) is the research and development organization for the U.S. Army Corps of Engineers (USACE). The ERDC supports the total Army engineer effort through its Military Engineering and Civil Works research and development (R&D) programs.

The Military Engineering R&D supports both the combat engineer in the theater of operations and facilities engineer at Army installations located around the world. The ERDC research effort supporting the combat engineer focuses on mobility, countermobility, survivability, sustainment engineering, and topography. The ERDC also provides critical operational support to the Army in theater by providing terrain and terrain-related information on the battlefield environment. The installation support research program focuses on providing technologies to improve the affordability of Army facilities and lands while ensuring the Army meets its environmental compliance and stewardship responsibilities.

The Army Civil Works R&D program focuses on reducing the cost of constructing, operating and maintaining the Nation's infrastructure of navigable waterways, harbors, and related recreation areas. The Army Civil Works R&D program also addresses a variety of flood control, environmental quality, and emergency response issues. This research supports the operating Corps of Engineer Districts responsible for execution of the Army's Civil Works program.

1.02 Organization Structure

1.021 Number of Employees

Military - 13

Civilian - 2043

1.022 Management Structure/Chain of Command

The Commander of the ERDC reports to the Deputy Chief of Engineers of the USACE. The ERDC is headquartered in Vicksburg, Mississippi and is organized as a distributed command consisting of eight laboratories and a programs office. Five laboratories are located in Vicksburg: Coastal and Hydraulics Laboratory (CHL), Environmental Laboratory (EL), Information Technology Laboratory (ITL), Geotechnical Laboratory (GL), and Structures Laboratory (SL). Cold Regions Research and Engineering Laboratory (CRREL) is located in Hanover, New Hampshire.

Construction Engineering Research Laboratory (CERL) is located in Champaign, Illinois. Topographic Engineering Center and the Programs Office are located in Alexandria, Virginia.

1.023 Organization Chart

See Figure 1 on the following page.

1.03 Business Area Funding sources:

TOTAL OBLIGATION AUTHORITY ($M):

	FY97	FY98	FY99	FY00 (Aug)
Civil Direct	$ 52.2	$ 52.2	$ 47.7	$ 52.4
Civil DFC	$ 1.8	$ 1.9	$ 2.7	$ 1.5
Civil Reimb	$ 77.6	$ 72.9	$ 77.7	$ 78.0
Mil Direct	$ 182.7	$ 224.4	$ 250.6	$ 236.5
Mil DFC	$ 30.4	$ 28.6	$ 62.3	$ 69.5
Mil Reimb	$ 114.1	$ 118.3	$ 117.7	$ 113.5
TOA	$ 458.7	$ 498.4	$ 558.7	$ 551.3

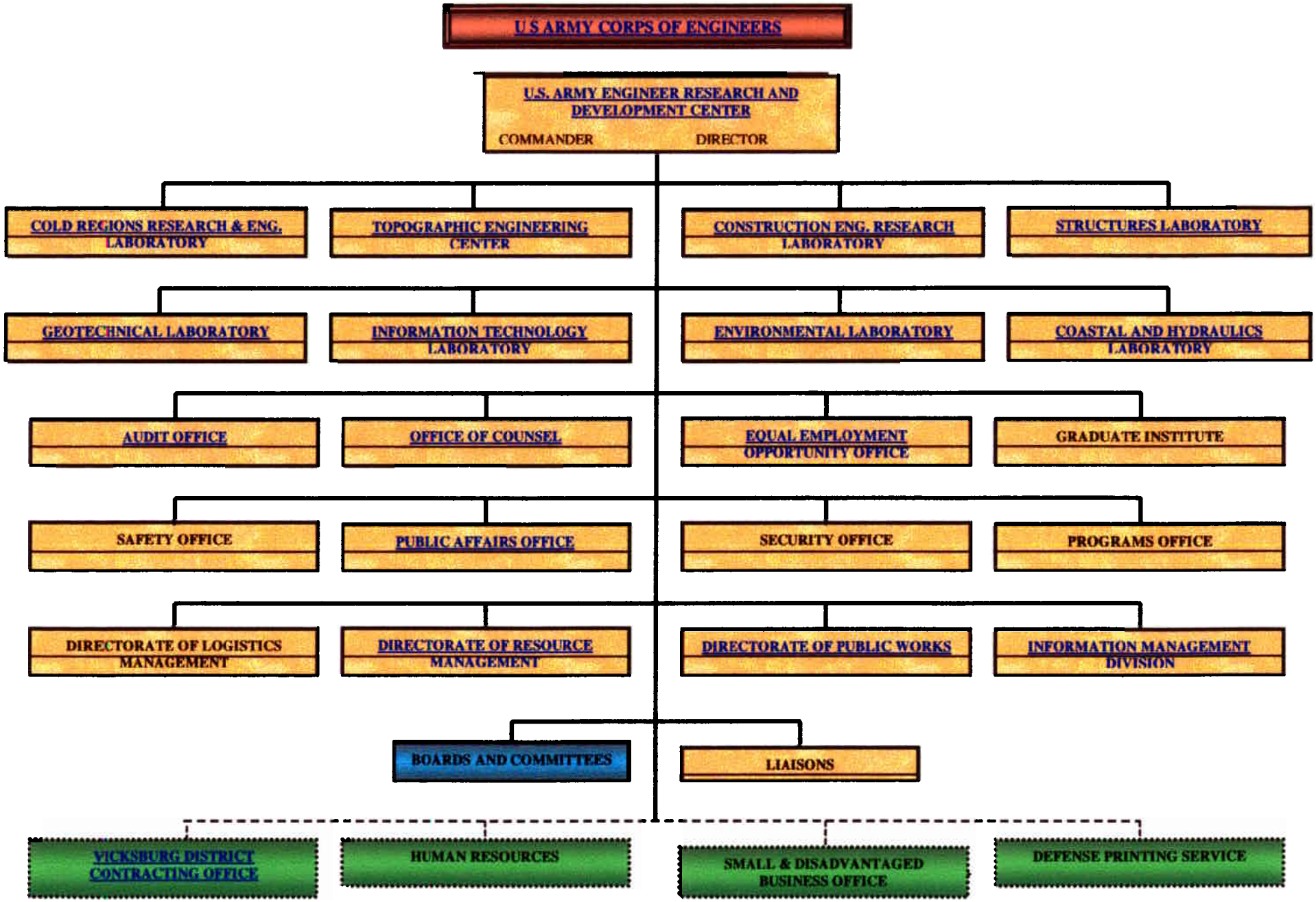
1.04 Major Products and Services:

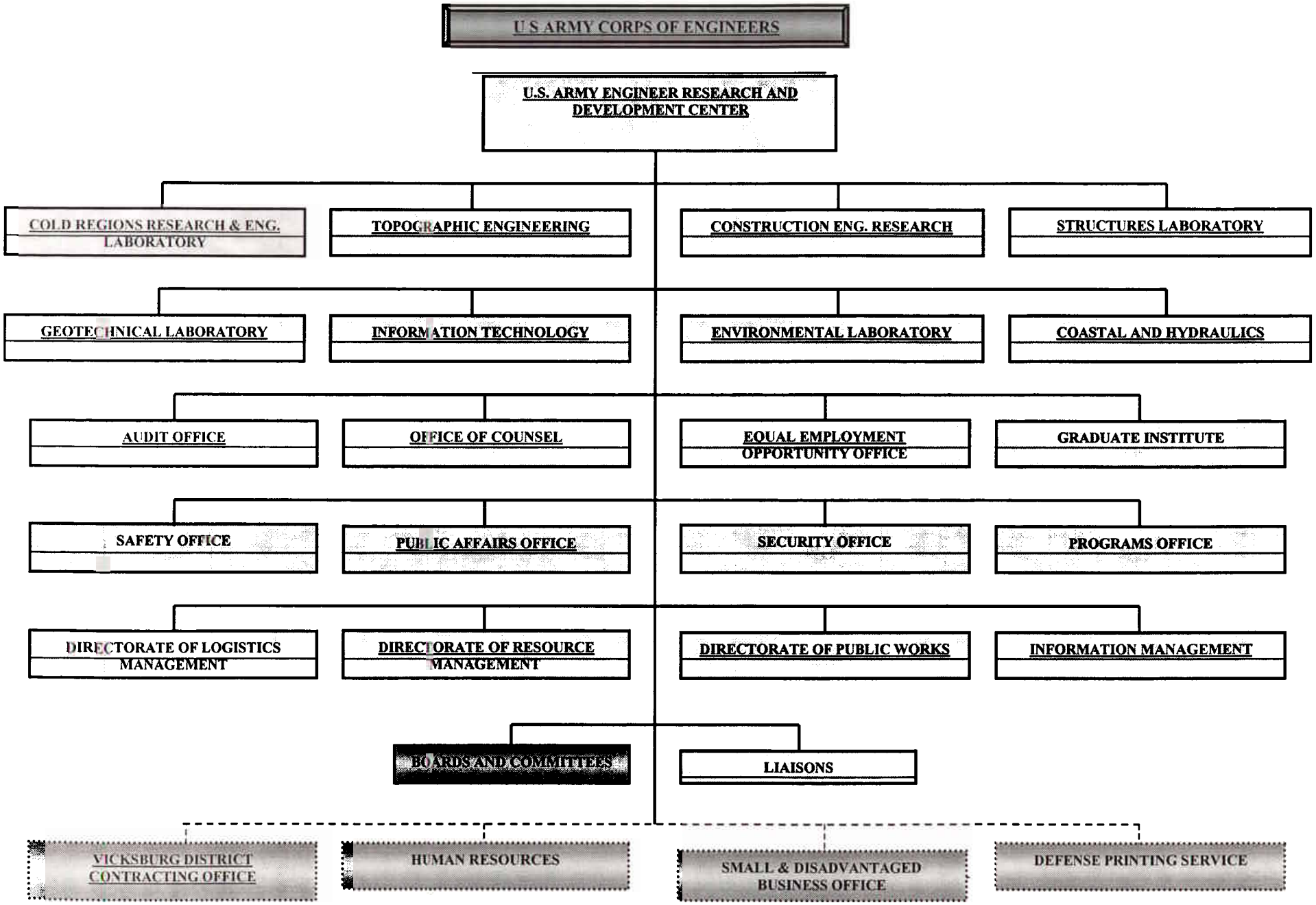
Under its **Military Engineering** program the ERDC performs research and development for enhancing engineer capability to deploy rapidly and to sustain a full range of military operations. The major research areas include those listed below:

- Airfields and Pavements for Force Projection
- Logistics Over the Shore
- Survivability and Protective Structures
- Lines of Communication Assessment and Repair
- Advanced Mobility Modeling
- Maneuver Support Modeling and Simulation
- Rapid Terrain Mapping and Visualization
- Tele-Engineering

Under its **Installation Support** program the ERDC conducts infrastructure and environmental sustainment research, development, studies and technical assistance to maintain a quality trained and ready Army and to preserve and protect its land, water and natural and cultural resources.

- Munitions Production Compliance Technologies
- Sustainable Military Land Use and Stewardship of Army Lands
- Training Land Carrying Capacity
- Cost Effective and Efficient Clean-Up of Army Installations and Active/Inactive Ranges
- Protocols for Military Training to Reduce Impact on Threatened and Endangered Species
- Facility Seismic Risk Mitigation
- Facility Delivery Process Improvement
- Integrated Installation Management
- Utilities Modernization and Optimization for Military Installations


U.S ARMY CORPS OF ENGINEERS
U.S. ARMY ENGINEER RESEARCH AND DEVELOPMENT CENTER
COMMANDER
DIRECTOR
COLD REGIONS RESEARCH & ENG. LABORATORY
TOPOGRAPHIC ENGINEERING CENTER
CONSTRUCTION ENG. RESEARCH LABORATORY
STRUCTURES LABORATORY
GEOTECHNICAL LABORATORY
INFORMATION TECHNOLOGY LABORATORY
ENVIRONMENTAL LABORATORY
COASTAL AND HYDRAULICS LABORATORY
AUDIT OFFICE
OFFICE OF COUNSEL
EQUAL EMPLOYMENT OPPORTUNITY OFFICE
GRADUATE INSTITUTE
SAFETY OFFICE
PUBLIC AFFAIRS OFFICE
SECURITY OFFICE
PROGRAMS OFFICE
DIRECTORATE OF LOGISTICS MANAGEMENT
DIRECTORATE OF RESOURCE MANAGEMENT
DIRECTORATE OF PUBLIC WORKS
INFORMATION MANAGEMENT DIVISION
BOARDS AND COMMITTEES
LIAISONS
VICKSBURG DISTRICT CONTRACTING OFFICE
HUMAN RESOURCES
SMALL & DISADVANTAGED BUSINESS OFFICE
DEFENSE PRINTING SERVICE


U S ARMY CORPS OF ENGINEERS
U.S. ARMY ENGINEER RESEARCH AND DEVELOPMENT CENTER
COLD REGIONS RESEARCH & ENG. LABORATORY
TOPOGRAPHIC ENGINEERING
CONSTRUCTION ENG. RESEARCH
STRUCTURES LABORATORY
GEOTECHNICAL LABORATORY
INFORMATION TECHNOLOGY
ENVIRONMENTAL LABORATORY
COASTAL AND HYDRAULICS
AUDIT OFFICE
OFFICE OF COUNSEL
EQUAL EMPLOYMENT OPPORTUNITY OFFICE
GRADUATE INSTITUTE
SAFETY OFFICE
PUBLIC AFFAIRS OFFICE
SECURITY OFFICE
PROGRAMS OFFICE
DIRECTORATE OF LOGISTICS MANAGEMENT
DIRECTORATE OF RESOURCE MANAGEMENT
DIRECTORATE OF PUBLIC WORKS
INFORMATION MANAGEMENT
BOARDS AND COMMITTEES
LIAISONS
VICKSBURG DISTRICT CONTRACTING OFFICE
HUMAN RESOURCES
SMALL & DISADVANTAGED BUSINESS OFFICE
DEFENSE PRINTING SERVICE

The ERDC **Civil Works** research program focuses on developing and applying technologies for reducing the cost of constructing, operating and maintaining the Nation's Civil Works structures and facilities such as navigable waterways, harbors, and related recreation areas. Major research initiatives include the following areas:

- Flood Control
- Navigation
- Environmental Quality
- Coastal and Hydraulic Engineering
- Structural Engineering
- Concrete Technology
- Earthquake Engineering
- Soil and Rock Mechanics
- Risk Analysis for Civil Works Projects
- Geospatial Technology

1.05 Major Customers

Military Engineering – Major customers of the Military Engineering research program include the U.S. Army Maneuver Support Center (MANSCEN) with the focus primarily on support to the Engineer School; the Army Battlelabs; the Training and Doctrine Command, and the National Imagery and Mapping Agency (NIMA). These and other key military and Army organizations serve as proponents for the technologies developed by the ERDC for the ultimate users – the combat engineers and Army forces in theater.

Installation Support – Major customers of the Installation Support research program include the Assistant Chief of Staff for Installation Management (ACSIM) and Headquarters, U.S. Army Corps of Engineers (USACE). These organizations are responsible for the construction and management of the Army installations supporting Army forces worldwide. The ultimate users of the technologies from the installation support research program are Army installation entities including: Directorate of Public Works, Environmental Offices, USACE Division and District personnel supporting construction and environmental activities, and Army Range Management offices.

Civil Works – Major customers of the Civil Work research program consist of the Headquarters USACE and USACE personnel at Divisions and Districts supporting a wide range of Civil Works projects throughout the Nation.

Support for Others – Research and technical assistance in all mission areas is also provided to non-federal agencies such as state and local governments, universities, and other non-federal organizations (including the private sector and foreign governments) through appropriate legal authorities.

Section II: Baseline your Cost Management / ABC efforts – (explain your existing Cost Management program, ABC/M or otherwise)

2.01 Overview of your current Business Area Organization's Cost Management /ABC initiatives if any (*include location, size, purpose, software, and POC, etc.*)
One ERDC site, the Construction Engineering Research Laboratory, has had one day of training on the concept of ABC that included managers from both support elements and the technology area. All four laboratory independent financial data bases were merged into one financial data base when

the ERDC was created. The COE Project Management system (PROMIS) is now being implemented across the ERDC. All ERDC employees have been trained on CEFMS and are currently being trained on PROMIS.

2.011 Current ABC efforts: The ERDC fully employs the standard Corps of Engineers Financial Management System (CEFMS) which meets the criteria of an ABC system. PROMIS is now being implemented across the ERDC. Business processes are being standardized across the ERDC.

2.012 Existing Management Information System (MIS) used to manage costs:
The Corps of Engineers Financial Management System (CEFMS) and Projects Management Information System (PROMIS)

2.013 Other Cost Measurement Methodology: The ERDC is measured quarterly by the USACE Command Management Review (CMR) chaired by the Chief of Engineers. In addition, the ERDC is currently developing and expanding previously used CMR measures to better measure the efficiency of our business processes.

2.014 Software used.
Oracle.

2.02 Assessment of Employee Cost Management Skills

2.021 Management Level Skills Trained to do ABC/M

2.0211 Number with ABC training. (*Certification*): None
2.0212 Number with On the Job training: ERDC managers are users of CEFMS and avail themselves of various standard and ad hoc reports from the system. They are all currently being trained on PROMIS.

2.22 Staff Level Cost Management Skills Trained to do other CM methodologies.

2.0221 Number with ABC training *(Certification)*:None
2.0222 Number with On the Job Training: All ERDC employees have been trained to use CEFMS, and are currently being trained to use PROMIS.

2.03 Existing Cost Accounting Systems: CEFMS

2.031 Location: The development team is located in Huntsville, AL

2.032 Type System: Oracle

2.033 Methodology: The Corps of Engineers has an accounting system that is based on our need for sound cost accounting in order to properly charge all of our costs to the "ultimate cost object" our projects. CEFMS is an on-line, real-time, integrated system using single source input that allows us to manage our many projects no matter which appropriations or customers have funded our work. CEFMS is designed to allow us to use a number of costing methods; direct charging,

cost center (facility) distributions (based on usage), and overhead distributions (based on the total costs charged to the projects). These methods allow us to collect costs in appropriate organizations or cost centers and to equitably distribute those costs to our projects and customers. CEFMS contains detailed cost information that allows our organizational, cost center (facility), and project managers to track the costs in their areas of responsibility on an ad hoc, real time basis.

2.034 Do they feed a Cost Management or Decision Support System?
CEFMS information is used by organizational managers and project managers alike. Data can be used in detail or summary fashion as needed for customer billings, individual project IPR's with sponsors/customers, organizational or funding execution reviews, Quarterly Program reviews, Program Budget Advisory Committee (PBAC) reviews, and as an historical source of information for comparisons, trends, and future planning endeavors. The actual data recorded in CEFMS is used to interface with various planning and scheduling tools utilized by the eight laboratories of the Center. We are currently implementing PROMIS which is designed to fully interface with CEFMS. Projects established in PROMIS will automatically populate the resource plan required by CEFMS and the actual execution data will be passed back to PROMIS for comparison and variance management purposes. This data is also used to prepare the Command Management Review briefings on a quarterly basis.

2.04 Describe Current Performance Management System(s).

2.041 What performance metrics do you use? Various levels, trends and comparisons, including: cost/variance analysis of budget to actual for direct and indirect costs by resource element; actual obligation and disbursement rates in comparison to goals; income vs sales for distributed facility accounts; cycle times for products and services, and other non-financial metrics such as manpower utilization. We are currently in the process of redefining, improving and institutionalizing our performance management systems.

2.042 How do you use your performance metrics to manage?

To define requirements, build accurate budget and expenditure plans, enhance execution, measure and analyze variation and make reallocation/reprogramming decisions accordingly, measure progress toward goals and identify required adjustment actions, and to otherwise systematically evaluate our products and services to facilitate continuous process and product improvement, ensure accountability and credibility, streamline processes, reduce costs, get more value/quality from existing resources, and leverage available resources.

2.043 How and what performance measurers support the Government Performance and Result Act (GPRA)?

The CMR indicators are quite relevant to GPRA measures. Many are strategic rather than operational. In addition, the ERDC produces an annual "Laboratory of the Year" report that is very similar to the Annual Report required under the GPRA. Every R&D program is broken down into work packages with specific milestones and expected outcomes. Program reviews and other scheduled meetings are held throughout the year to monitor technical and fiscal execution and to ensure that milestones are met. Some performance measures, such as training and technical publications, are tracked as leading indicators of technical quality.

2.044 Are your performance measurers aligned with your cost management system?

Many of the performance metrics are drawn from our MIS/cost accounting system. Metrics are assessed, analyzed and acted upon at different levels and regularly reviewed by leadership to facilitate decision-making. Some of the formal forums for leadership/management decision making include regular staff and budget meetings; senior PBAC meetings; and Program Execution Reviews.

Section III: Describe Full Implementation of Cost Management / ABC

3.01 Describe your end-state vision for Cost Management/ABC *(From both Strategic and Operational Perspective*

ERDC is an evolving organization, newly formed by combining under a central Command the laboratories at 4 dispersed field locations – Vicksburg, MS; Champaign, IL; Hanover, NH; and Alexandria, VA. All of these sites used CEFMS, but each had developed its own set of reports and metrics to manage its R&D program. Serious efforts are currently underway to develop common definitions, processes, and tools for use at all sites. The end state vision for cost management in ERDC is to develop a suite of reports and other tools based on CEFMS that will enable ERDC managers at all levels, within both the laboratories and the support staff, to track critical cost information that is linked to specific activities related to the execution of their mission. Ultimately, we will have a standard set of Business Processes across the ERDC that conform to the USACE Business Processes. We will have successfully implemented Program/Project Management discipline using PROMIS throughout the ERDC. We will have accurate recording, accounting, recall, and reporting of costs in a single financial data base for ERDC. We will have reduced our infrastructure costs by 25% over the FY96 baseline by the end of FY05.

3.011 Cost Management *(How will you use Cost Management to drive continuous cost and process improvement? How will you create a cost management culture?)* ?) The implementation of CEFMS has already created a cost management culture, with single data entry by the responsible individual on each project, accurate assignment of costs to work items, visibility of the total costs of work efforts, and accurate upward reporting of costs on a single financial data base for all of ERDC. We are currently implementing Program/Project Management Business Processes and PROMIS to connect accurate assignment and recording of costs to project management capabilities. Current and future performance measures will include cost-related metrics that are tracked and reviewed quarterly by senior management. Through leadership emphasis, training, and the involvement of the total workforce, a cost-conscious culture will become second nature.

3.012 ABC *(If ABC is cost measurement choice, how will it be used – cost / product improvement, A-76 support, Pricing, etc? And how will you report with it?)* ABC is not the cost measurement choice, although the use of facility accounts and the Revolving Fund in CEFMS is an advanced form of ABC. The common suite of reports and other tools based on CEFMS (see item 3.01 above) will enable ERDC managers at all levels, within both the laboratories and the support staff, to track critical cost information that is linked to specific activities related to the execution of their mission. Technical managers will be able to prepare more accurate cost estimates. Managers throughout the organization will be able to identify areas where cost improvement initiatives will yield the greatest return on investment.

3.013 Performance Measurement for Management *(Will you incorporate performance measures with the Balanced Scorecard?* We already report quarterly to the USACE Command Management Review, and are revising and improving our internal CMR measures to make them more strategic.

USACE has adopted the Balanced Scorecard as the future basis for the CMR, and is aligning the HQ CMR to achieve that. The ERDC internal CMR measures will align with the USACE HQ CMR. Our vision is to develop a tracking system to collect information in each of six critical areas (Financial Performance, Product/service Quality, Supplier Performance, Customer Satisfaction, Process and Operational Performance, and Employee Satisfaction) that is so integrated with the normal business process that it is not viewed as an obstacle to accomplishing the organization mission, but as an essential part of accomplishing that mission successfully.

3.014 Quality Program *(Will your performance measures support your APIC program or other if you have one?)*
ERDC management is studying the business practices and performance measures that were used at its individual sites. One performance report that all four sites have had in common is the CMR, a quarterly review chaired by the Chief of Engineers. USACE has recently adopted the Balanced Scorecard as the future basis for the CMR, so some of ERDC's internal performance measures will be defined to align with the requirements of the USACE CMR. A second report that all four ERDC sites have used is an annual submittal to the Army R&D Organization of the Year competition. These reports documented technical accomplishments, management initiatives, and organizational performance, particularly with respect to customer satisfaction and employee awards and peer-recognition. Because ERDC will continue to participate in the Army R&D Organization of the Year competition, these metrics will continue to be part of the ERDC performance measurement system.

3.02 Describe how your Cost Measurement / ABC program will be integrated vertically and horizontally *(in your reporting / authority responsibility)*:
Our Cost Measurement program has been implemented and is being expanded at the bench level through our financial management system (CEFMS) and our Program/Project Management System (PROMIS). These systems are not in place simply as upward reporting systems, but rather are integral to all of our business processes. As such they flow from the bottom to the top, with single-data entry and full execution responsibility residing with individual Principal Investigators (PIs) and support function managers alike. The accountability for accurate recording of cost, accurate cost assignment, and maintaining visibility of total costs on each product thus stays with the Activity Manager/PI, and each is accountable via the ERDC performance management system (Lab Demo) to upper management for effective cost management.

3.02 Provide Statement of Cost Management Goals and Objectives:
We will implement a standard set of Business Processes across the ERDC that conform to the USACE Business Processes. We will successfully implement Program/Project Management and PROMIS throughout the ERDC. We will create and maintain accurate recording, accounting, recall and reporting of costs in a single, financial data base for the ERDC. We will revise and standardize a relevant set of performance measures that conforms to the HQUSACE requirement to implement a balanced scorecard approach. We will reduce our infrastructure costs by 25% over the FY96 baseline by the end of FY05.

Section IV: Describe Plan to Get from Baseline to Full Implementation *(Describe your procedures to achieve implementation at the strategic and operational level.)*

4.01 Describe your Strategic and Operational level Plans as follows:

4.11 Goals and Objectives for Implementation

The strategic objective of the ERDC is to attract and retain highly competent and motivated employees and provide them with state-of-the-art equipment and facilities so they can continue to deliver the highest-quality services and products that meet and exceed the expectations of our varied customers with respect to both technical performance and cost effectiveness. Implementation will focus, on four areas – Strengthen Relationships With Peers and Customers, Design and Execute Quality R&D, Publish R&D Results, and Maintain Quality Support and Supplier Processes.

4.12 Concepts of Operations *(include methodologies for managing cost)*

To strengthen peer relationships, management supports employees' involvement in professional organizations. These activities provide opportunities for ERDC team members to build relationships with world-renowned experts in their field as well as ensuring that ERDC stays abreast of the latest developments in its mission areas. A primary cost management tool in this area is a Foreign Travel Plan that is reviewed by the Commander and Director. Senior-level review of foreign travel eliminates unnecessary trips. Use of frequent flyer miles is strongly encouraged, particularly for conference travel.

To strengthen customer relationships, management assigns each project to a principal investigator who becomes the primary point of contact with the customer. From project inception to product delivery, the principal investigator is in continuous contact with the customer, ensuring that the final product will meet the requirements. Middle managers and even the laboratory director will also contact the customer. This personal contact, coupled with quality products, builds loyal customers. Cost management in this focus area includes regular CEFMS cost reports tracking budget vs. actual expenditures. Regular detailed reports to the customers keep them informed of both technical and fiscal progress.

Quality R&D flows from competent, motivated employees having access to excellent equipment and facilities. The ERDC strategy calls for continued investment in training and education. Retention efforts will include assigning new team members to meaningful projects early in their careers while providing them unparalleled opportunities for higher education at local universities/colleges, the Vicksburg Graduate Institute, and long-term PhD-level academic opportunities. Cost management includes supervisory approval of training requests and linkage to current or future work assignments. An Installation Planning Board meets periodically to review and approve long-range facility plans. Cost management includes a cost/benefit analysis of proposed facility upgrades.

Sharing of research results is accomplished through technical articles in professional journals, conference papers and presentations, press releases, and collaborative relationships with federal and non-federal partners. ERDC has established numerous collaborative relationships that not only make R&D results more broadly available, but also leverage limited R&D funds with partner resources.

One of the primary drivers of the ERDC consolidation was the cost savings realized by combining the support staff offices of the four ERDC sites. Through attrition and reassignments, significant cost savings have been realized. We have already implemented CEFMS throughout ERDC, and have combined four, individual laboratory financial data bases into one ERDC financial data base. We currently have an effort underway by the ERDC Information Technology Laboratory (PROMIS developer) to train all personnel and implement PROMIS throughout ERDC. The ERDC Programs Office is leading the effort to improve our internal Command Management Review indicators and align them with the HQUSACE balanced scorecard approach. We will continue to improve the

efficiency of our organization and standardize our business processes in order to achieve our goal of a 25% reduction in our infrastructure costs from the FY96 baseline by FY05.

4.13 Size and Scope:

The scope of the ERDC cost management plan encompasses all four sites, including eight laboratories and twelve support staff elements, comprised of over 3000 permanent and contract personnel with an annual budget approaching $600M.

4.014 Roles and Responsibilities:

Senior Leaders – Communicate vision, values, and strategies, including clear objectives. Approve performance measures.

Programs Office – Coordinate the development of appropriate performance measures, with measurable goals aligned with the HQUSACE balanced scorecard approach.

Middle Managers – Provide resources and oversight support to accomplish goals and objectives.

Front-line Managers – implement necessary actions to accomplish goals and objectives.

All ERDC personnel – responsible to manage their costs effectively through the use of CEFMS and to link these cost management efforts to project management criteria through the use of PROMIS.

4.015 Implementation schedule (a three-year timeline of major actions / events):
FY95-Present: Implement CEFMS, consolidate four laboratories into ERDC, reduce infrastructure costs by 15% or greater from the FY96 baseline, begin to standardize business processes, begin to implement PROMIS.

FY01 – Complete implementation of PROMIS, identify common set of CMR indicators aligned with the USACE balanced scorecard approach, and begin training of trainers.

FY02 – Complete training, achieve standard business processes across ERDC, and initiate collection of baseline information.

FY03 – Complete collection of baseline information, monitor performance, provide feedback to ERDC organizations, and identify areas for improvement.

4.16 Identify any planned prototypes.

The Vicksburg site participated in the Army Communities of Excellence program using the APIC criteria. Some of the tools and performance measures they used may be adapted for ERDC.

4.017 Describe proposed initial training program – in outline format. *(How many to be trained? How will training resources be leveraged i.e. train-the-trainer, etc.?)*

Training must include senior leader expression of commitment to the cost management system. Performance measures should be clearly explained – what they are, how they are to be measured, how they will be used to improve performance. New tools and reports should be demonstrated and explained. Trainers will be trained at each site who will then conduct targeted training sessions held for employees at each site based on level of involvement with the various tools and reports. All

employees will be briefed on the significance of the performance measures and the leadership emphasis on cost management through townhall meetings, information bulletins, and other media.

4.018 Identify software requirements *(Software to be centrally procured).*

None.

4.019 Define criteria for assessing ABC as cost measurement tool:

Not applicable.

4.02 Performance Measurers

4.021 Describe how you will develop performance metrics.

Metrics will be developed by a working group consisting of representatives of the laboratories and support staff elements with oversight and approval of the Executive Office.

4.022 How will performance be measured and evaluated.

Performance will be evaluated at Quarterly Performance Reviews. Charts will be prepared for each metric for the various ERDC laboratories and support staff elements.

4.023 How will performance measures support continuous improvement i.e. cost, product/services, and process?

Appropriate goals will be established for each performance measure. Organizations not meeting a goal will be required to develop and submit to the Executive Office a written plan for achieving satisfactory performance.

4.24 How will the performance measures be linked to strategic goals and objectives (*i.e. Balanced Scorecard or other*)?

The Working Group that develops the performance metrics will ensure that one or more metrics are included for each or the six areas identified in 3.013 using the balanced scorecard approach.

4.03 Indicate how your Cost Management / ABC program will be sustained and improved:

As stated in 3.013, the cost management/performance measurement system should be so integrated with the normal business process that it is not viewed as an obstacle to accomplishing the mission, but as an essential part of accomplishing the mission. The system will be sustained and improved by maintaining open lines of communication between the Executive Office and each ERDC laboratory and support element.

4.04 Explain how you will provide training support for model building, implementation, and *sustainment (In-house, AAA, or contractor support, ect.).*

Training will be conducted by ERDC personnel.

Section V: Special Considerations:

5.01 List Organizational unique requirements (*software/hardware/training*).

The ERDC does not plan to implement contracted software. Reports and tools will be based on CEFMS/PROMIS and will be developed within USACE.

5.02 Identify any implementation constraints or obstacles specific to your Organization.

See item 5.01.

5.03 Specifically describe how your Cost Management / ABC or other Cost Management activities will relate to and support Visibility and Management of Operations and Support Costs (VAMOSC).

The ERDC is not involved with the operation and support of Army weapons systems. However, we are confident that our CEFMS software would comply with the requirements of VAMOSC for visibility and history of such costs for our products.