COMPREHENSIVE FINAL REPORT

ANALYSIS OF OPERATIONS AND STRUCTURE OF NOAA'S FINANCE AND ADMINISTRATION SERVICES

National Oceanic and Atmospheric Administration

NOAA Finance and Administration

ISSUE DATE: FEBRUARY 13, 2004

DISCLAIMER: In its conduct of this analysis, Booz Allen Hamilton has utilized the best available data concerning NOAA workload, staffing, cost and performance levels. These data may be subject to further refinement, adjustment, or validation via additional analysis beyond the scope and objectives of this study. However, in Booz Allen's professional judgment, such refinements, adjustments, etc., if any, are unlikely to materially alter the findings, conclusions, and recommendations contained within this report.

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1. EXECUTIVE SUMMARY

This chapter provides a high-level summary of project objectives, scope, approach, and key outcomes.

1.1 PROJECT OVERVIEW

Booz Allen Hamilton has completed a comprehensive review and analysis of the National Oceanic and Atmospheric Administration's (NOAA's) centralized finance and administrative services functions. The purpose of this study was to evaluate the current performance of NOAA's central finance and administrative functions, to provide recommendations for cost-effective improvements in cost and service performance, and to develop a proposed Transition Plan for their realization. This comprehensive final report summarizes the study and its outcomes.

Substantial assistance was provided to us throughout this effort by the NOAA Study Team, administrative functional managers, administrative support center directors, and the many staff we interviewed at Headquarters and in the field. While Booz Allen is responsible for the findings, conclusions, and recommendations presented herein, the considerable effort of many individuals at NOAA made an essential contribution to our ability to meet the challenges of this ambitious study.

The scope of the study included the finance and administrative functions that are provided by the organization formerly known as NOAA Finance and Administration (NFA). These functions include: finance, budget, workforce management, acquisition, grants, facilities and logistics, information technology, and environmental compliance.

As requested by NOAA, we began our study by reviewing and validating the available activity-based cost (ABC) data for each administrative service function. Booz Allen added to and refined the ABC data by conducting over 300 interviews and reviewing previous studies and other relevant documentation. We reviewed the results of previous studies of NOAA finance and administrative functions to develop an understanding of the history and evolution of these functions. We also gathered customer satisfaction data from a broad selection of customer agencies, including both NOAA and non-NOAA customers.

Using the above data sources, we conducted a workload analysis of finance and administrative functions. This analysis identified the similarities and differences in productivity and performance across the four regional Administrative Support Centers (ASCs) and the operational support activities performed in Washington, DC at what has been termed the "fifth ASC." Using information available on the performance of finance and administrative services in other federal agencies, we compared the performance of NOAA service providers with these other agencies for similar administrative processes, providing further perspective on the relative productivity of the NOAA administrative services organization.

We then considered what options might be available to improve the performance of finance and administrative services. We identified NOAA-specific evaluative criteria to inform this analysis, and identified and assessed various service delivery models. We selected a preferred service delivery model and used this model to detail a proposed new high-level concept of operations for NOAA's administrative services functions. We aligned this conceptual framework with specific recommendations in each of the eight functional areas within the scope of the analysis, and identified the costs, benefits, and risks associated with these recommendations. Finally, we developed a transition plan to identify the activities required to move the organization from the current concept of operations to the recommended model.

While the proposed operating model represents a significant departure from the as-is model and would require a substantial change in the way services are currently provided, the costs of the transition to this new model appear justified by opportunities for improvement in cost and service performance. These opportunities represent a potential annual savings at current workloads, of $19.1 million after the recommended changes to the current concept of operations are fully implemented.

NOAA's finance and administrative services organization faces many challenges. In undertaking this study, it has demonstrated openness to the consideration of new ideas and new approaches to serving its customers. The recommended concept of operations described in this report supports a more streamlined, cost-effective organization that, in Booz Allen's view, can produce significant organizational efficiencies in the provision of NOAA finance and administrative services.

1.2 PROFILE OF NOAA ADMINISTRATIVE SERVICES

1.2.1 Background

For over twenty years, NOAA has relied on a regional support center-based delivery model to provide administrative services to its customers in the Department of Commerce's field organizations. The four Administrative Support Centers (ASCs) created in 1983 to provide these services include:

- Eastern Administrative Support Center (EASC) in Norfolk, Virginia
- Central Administrative Support Center (CASC) in Kansas City, Missouri
- Mountain Administrative Support Center (MASC) in Boulder, Colorado
- Western Administrative Support Center (WASC) in Seattle, Washington

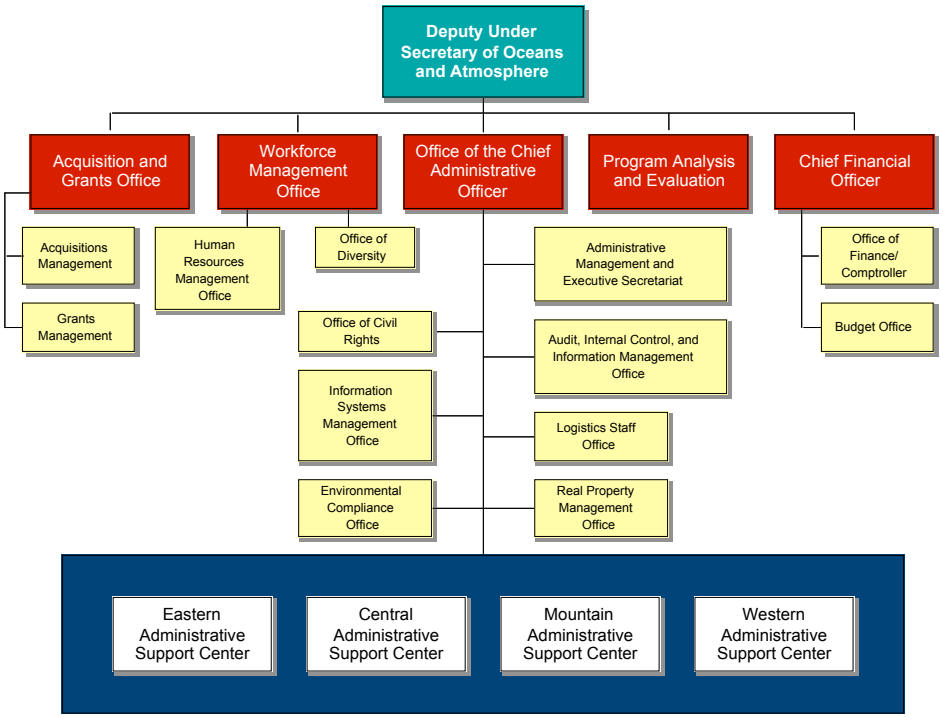
The ASCs were established as DOC entities hosted by the Office of Finance and Administration (OFA) within NOAA. The four regional ASCs serve a wide variety of customers, including NOAA program offices, other DOC offices, visiting scientists, contractors. In addition, finance and administrative services are provided by a "fifth

ASC" that primarily serves the Headquarters offices located in the Washington, DC metropolitan area.

Although there is some variation in type and level of support, ASCs generally provide a full range of services, including finance, acquisition, workforce management, facilities and logistics, information technology, and environmental compliance. Grants management services are provided at Headquarters and at MASC. The ASCs also provide unique, site-specific services such as the Commerce Bankcard Center at CASC, Alternative Dispute Resolution at WASC, and Library Services at MASC.

A 2003 realignment of NOAA administrative services eliminated the Office of the Chief Financial Officer/Chief Administrative Officer and created five offices reporting to the Deputy Under Secretary. These offices include: Office of Chief Financial Officer, Office of Chief Administrative Officer, Workforce Management Office, Acquisition and Grants Office, and Office of Program Analysis and Evaluation. The current organizational structure is displayed in Exhibit 1-1.

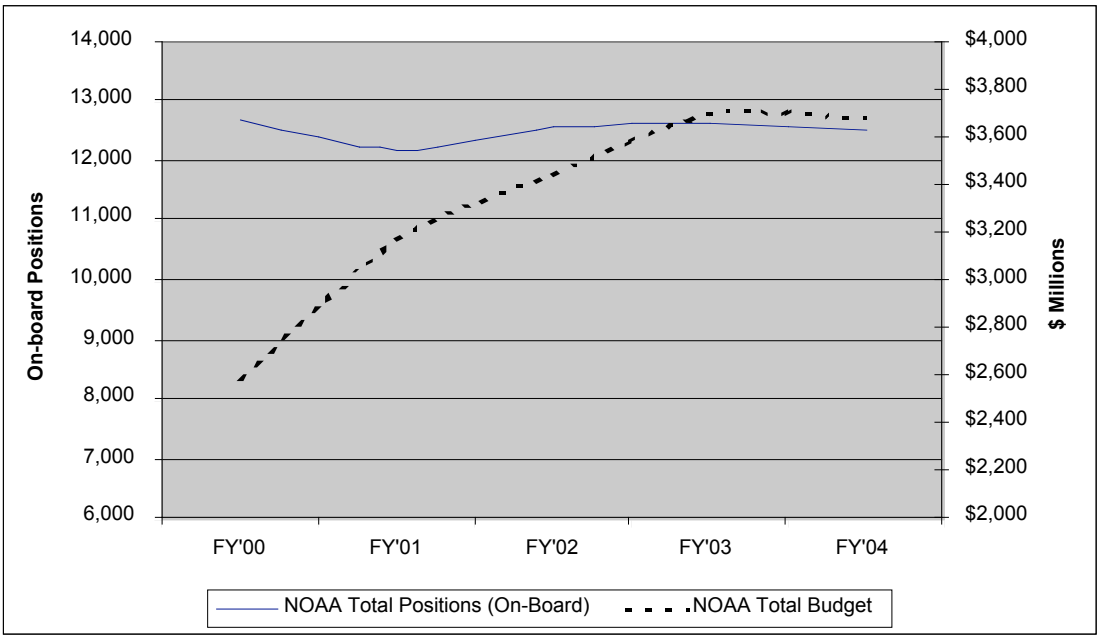
Exhibit 1-1: As-Is Organizational Structure of Service Delivery



1.2.2 History of Funding for Administrative Services

NOAA's $3.7B budget (FY 2004 estimate) has consistently increased over the past 4 years, as shown in Exhibit 1-2, with slight variations in the number of on-board positions.

Exhibit 1-2: Five-Year Trends in NOAA Budget vs. Positions

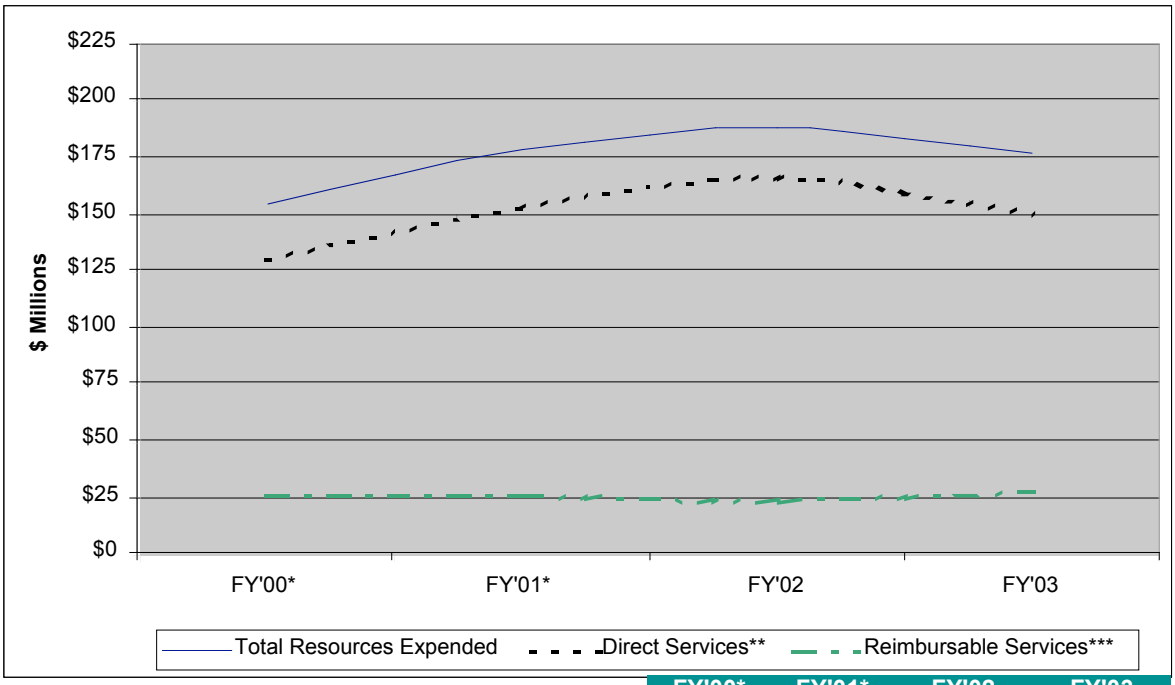


	FY'00	FY'01	FY'02	FY'03	FY'04
NOAA Total Positions (On-Board)	12,693	12,210	12,590	12,645	12,560
NOAA Total Budget	$ 2,582	$ 3,171	$ 3,443	$ 3,697	$ 3,682

Note: Dollars in millions

However, while NOAA's budget has grown over recent years, NFA's total funding resources including reimbursables and transfers, have declined since FY 2002, as shown in Exhibit 1-3.

Exhibit 1-3: Four-Year Trends in NFA Resources

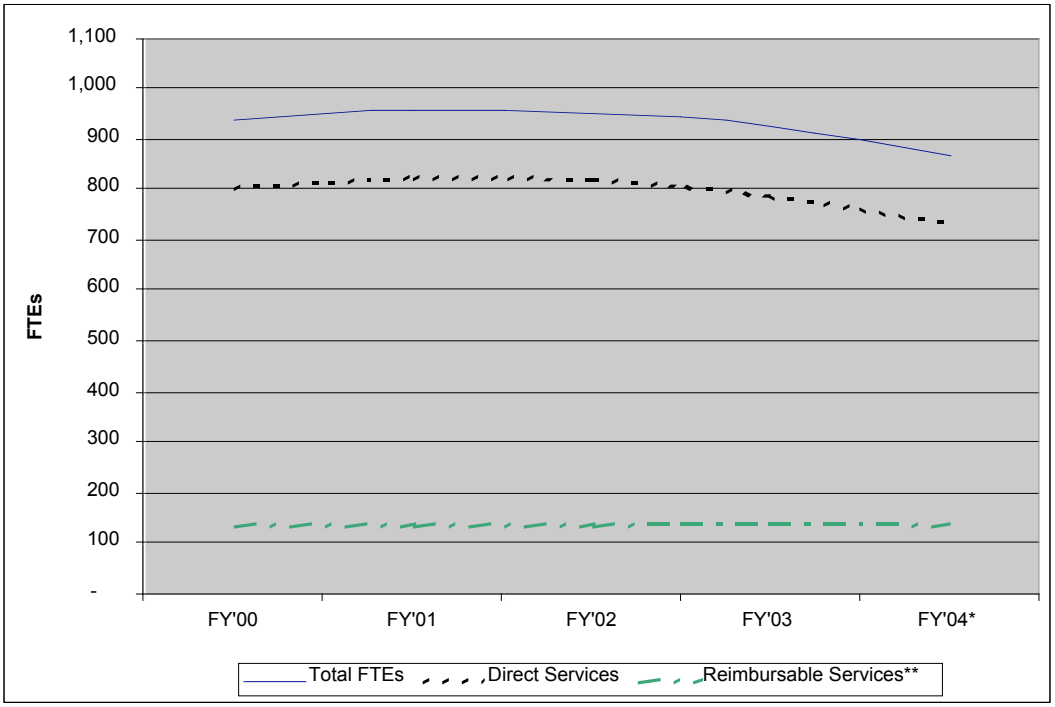


	FY'00*	FY'01*	FY'02	FY'03
Total Resources Expended	$ 155.2	$ 178.8	$ 189.0	$ 177.1
Direct Services**	$ 129.6	$ 153.2	$ 165.6	$ 149.7
Reimbursable Services***	$ 25.6	$ 25.6	$ 23.4	$ 27.4

*Reimbursable Service costs estimated for FY'00 & FY'01
**Costs not reimbursed by outside agencies or other NOAA entities
***Reimbursables include transfer costs from other NOAA entities or outside agencies
Note: Dollars in millions

The number of filled positions at NFA has declined over time as well. While the NFA organization includes approximately 1,014 authorized positions, approximately 145 positions are unfilled. As shown in Exhibit 1-4, total FTEs for NOAA Finance and Administration functions have declined from 961 in FY 2001 to 869 in FY 2004.

Exhibit 1-4: Five-Year Trends in NFA FTEs



	FY'00	FY'01	FY'02	FY'03	FY'04*
Total FTEs	941	961	955	928	869
Direct Services	805	825	819	789	733
Reimbursable Services**	136	136	136	139	136

*FY'04 consists of current on-board positions as of 2/4/04

**Reimbursables include transfer costs from other NOAA entities or outside agencies

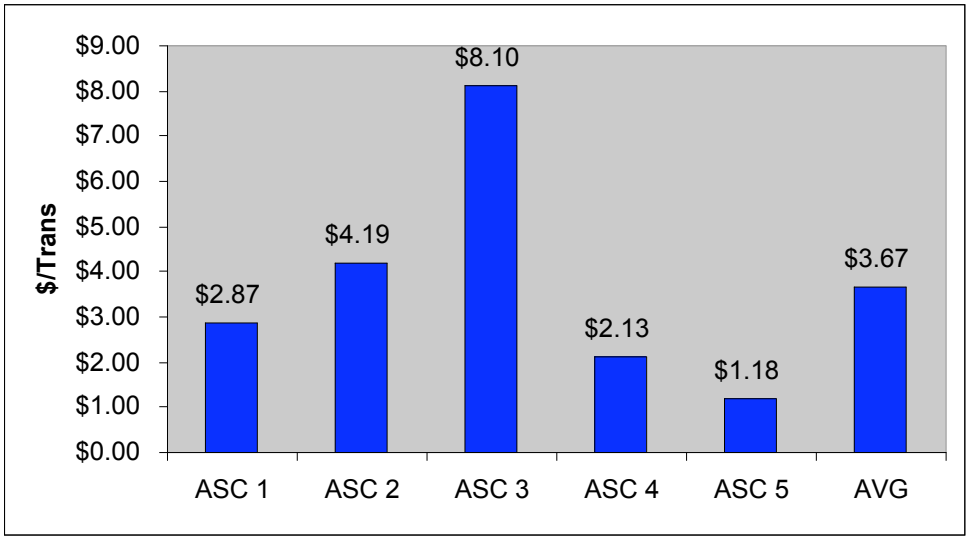
1.3 KEY FINDINGS AND CONCLUSIONS

Overall, Booz Allen finds that NOAA's finance and administrative operations offer significant opportunities for improvement in service cost and service quality. We find that these opportunities represent potential annual savings, assuming current workloads, of $19.1 million after the recommended changes to the current concept of operations are fully implemented.

1.3.1 Workload/Productivity

The cost of the key common services provided by NFA varies widely among service delivery locations with the performance levels of internal "best performers" ranging from 20-100% better than the NOAA system averages for these processes, as seen in Exhibit 1-5. This indicates that substantial improvements in productivity and service quality are possible through improved internal standardization of policy, process redesign and streamlining, staffing modifications and productivity, increased utilization of information technology, and improved management controls.

Exhibit 1-5: Example of Unit Cost Variation Across Several ASCs



While comparisons of NOAA performance levels with external cost/service benchmarks identified fewer opportunities for improvement than internal benchmarking analysis, this is more indicative of the generally modest level of administrative service performance in governmental agencies, and does not detract from Booz Allen's overall view that the performance of NOAA's administrative services functions can be significantly enhanced.

While NOAA is still refining its ABC data collection approach and there are issues with respect to the accuracy of some of the data used in our analysis of workload, productivity, and cost, such issues do not, in our view, alter our overall conclusions about the nature and magnitude of performance improvement opportunities in NOAA administrative services.

1.3.2 Customer Service and Satisfaction

Customer satisfaction levels vary significantly among ASCs and among administrative services, as shown in Exhibit 1-6. In this exhibit, data referring to WASH DC refers to work performed by "the fifth ASC." This work is operational in nature.

Exhibit 1-6: Customer Satisfaction Survey Results

ACTIVITY	# of RESPONSES	EASC	CASC	MASC	WASC	WASH DC	TOTALS
FINANCE/BUDGET							
Internal Customers	88	3.4	4.2	4.4	3.7	3.5	3.8
External Customers	4		3.5		5.0	5.0	4.5
All Customers	92	3.4	4.1	4.4	3.8	3.5	3.8
ACQUISITION							
Internal Customers	90	3.7	4.1	4.6	4.1	3.8	4.1
External Customers	11	3.0	4.0	4.2	4.0	4.5	3.9
All Customers	101	3.7	4.1	4.5	4.1	3.9	4.0
GRANTS							
Internal Customers	30			3.6		3.0	3.3
External Customers	2					5.0	5.0
All Customers	32			3.6		3.1	3.4
WORKFORCE MANAGEMENT							
Internal Customers	78	3.7	4.1	4.8	3.5	2.9	3.8
External Customers	16	2.0	4.6	4.6	3.5		3.7
All Customers	94	3.6	4.2	4.7	3.5	2.9	3.8
FACILITIES/LOGISTICS							
Internal Customers	102	3.6	3.8	3.9	3.7	3.2	3.7
External Customers	12	4.0	3.4	4.0	4.7	5.0	4.2
All Customers	114	3.6	3.8	3.9	3.8	3.3	3.7
INFORMATION TECHNOLOGY							
Internal Customers	35	4.0	4.4	3.4	4.0	3.9	4.0
External Customers							
All Customers	35	4.0	4.4	3.4	4.0	3.9	4.0
ENVIRONMENTAL COMPLIANCE							
Internal Customers	62	3.7	3.8	4.1	3.9	3.2	3.7
External Customers							
All Customers	62	3.7	3.8	4.1	3.9	3.2	3.7

In our study of customer satisfaction, responses ranged from 5 (highest quality customer support) to 1 (lowest quality customer support). From the data collected, it appears that NOAA's current administrative services functions are not consistently providing the level of support required to ensure cost-effective, high-quality operations. This is especially evident in areas like facilities, grants management, and workforce management, where lack of resources and ineffective management controls can seriously impede performance. Process cycle times, a reliable indicator of customer service performance, also vary among ASCs for some service processes, as shown below in Exhibit 1-7.

Exhibit 1-7: Comparison of Cycle Times For Selected Processes

ACTIVITY	EASC	CASC	MASC	WASC	WASH DC
Finance Services					
Record Non-Travel Disbursements	N/A	3	2	1	2
Record Undelivered Orders	2	2	1	2	2
Process Interfaced Disbursements	2	1	2	1	1
Record Employee Travel Disbursements	2	3	2	3	2
Adjust Accounting Transactions	5	3	3	3	2
Workforce Management					
Competitive Placements	75-105	50	>35-42	90	58
From request to certificate issued	30-55	3	35-42	6	24
From certificate to job offer	45-60	47	N/A	26	34
Facilities and Logistics					
Design and Construction					
Major Construction (months)	24-48	6-18	12-18	36-48	24-48
FMRS Project (months)	3-4	4-6	12-18	6-24	12
Printing and Publications Average	1	1	1	1	2

Note: All cycle times are in days unless otherwise specified
N/A – Not Available

Moreover, we found no strong correlation between unit service costs and service satisfaction levels of key processes, supporting the conclusion that both cost and service quality can be improved from current performance levels without detracting from either measure.

1.3.3 Management Processes

NOAA currently provides finance and administrative services through a multi-tiered service delivery model that represents a hybrid of functional, geographic, and business line approaches. However, no one dimension of the model is completely realized. For example, ASCs do not consistently confine their activities to the geographic footprint that surrounds their locations or to specific customers. In addition, a matrixed management reporting structure overlays the current model. ASC staff members, regardless of functions performed and customers served, report to their respective ASC Directors, rather than to functional directors at Headquarters. This hybrid, multi-tiered operating model has contributed to a lack of clear accountability for performance.

Our analysis indicates that management processes that control and support delivery of NOAA's administrative services (including planning, budgeting, resource deployment, policy and procedure documentation, performance measurement and reporting, process analysis and improvement, staff training, and technology absorption) are in need of significant improvement. We believe that actions taken to address current workload, productivity, structure and staffing issues will fail to result in significant change unless basic management planning and control processes are strengthened.

1.4 PROPOSED CONCEPT OF OPERATIONS

At the core of NOAA's challenges in building a more cost-effective service delivery model is the need to strengthen the quality of leadership and performance within each of its finance and administrative services functions. Specifically, NOAA must give each functional manager the clear authority, responsibility, resources, organizational reach, and accountability for performance required to effectively direct the delivery of services NOAA-wide. This basic need for increased functional management authority and accountability is the central theme of the proposed Concept of Operations.

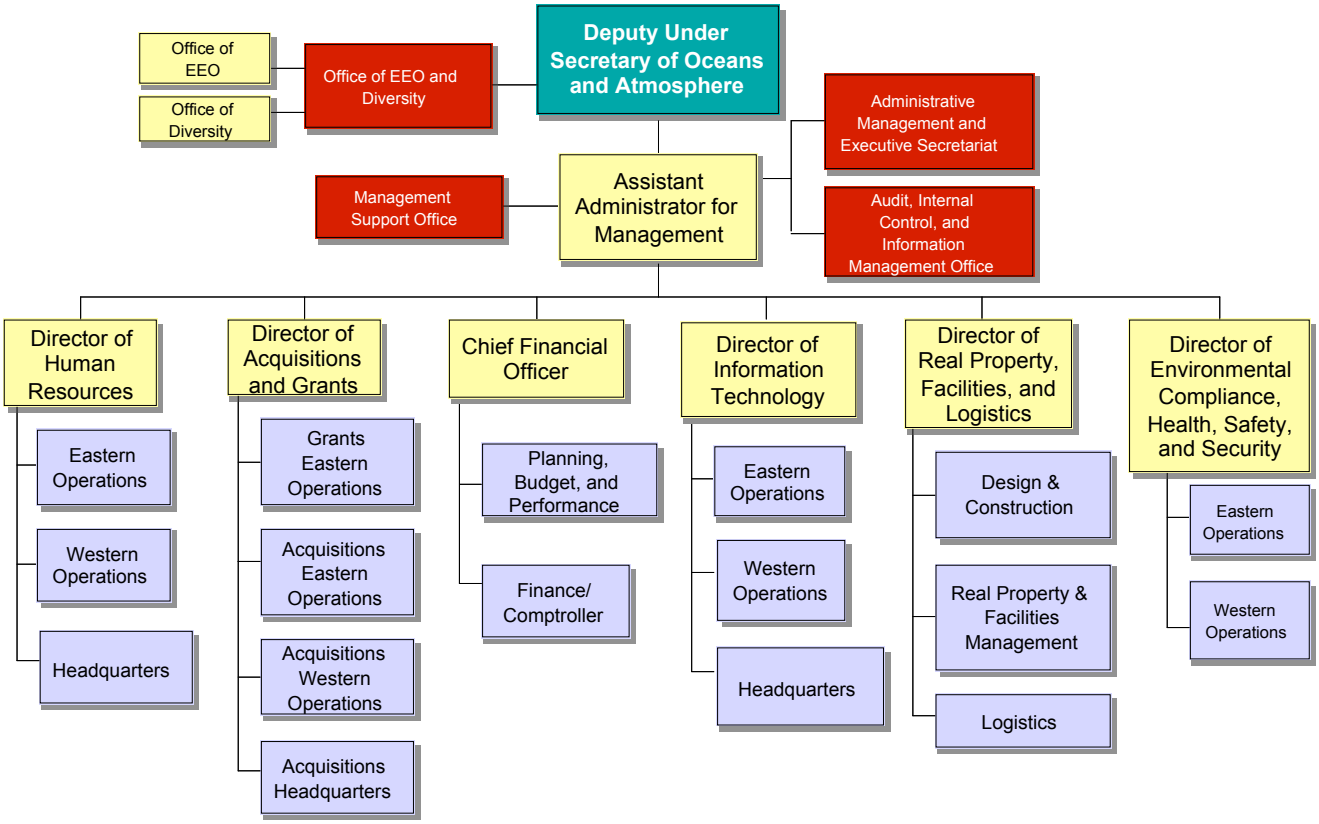
In this new Concept of Operations, the administrative support center structure is eliminated, and the staff of the former ASCs are functionally aligned under their respective functional managers. Each staff member reports to his respective functional manager, who is responsible for the efficiency and effectiveness of service delivery to customers. Reporting relationships and accountabilities are clear – each functional manager has authority to set policies, define procedures, and direct his staff. The functional manager is responsible for all aspects of service delivery and accountable for success and failure.

This alternative model would achieve several objectives:

- It provides for a much stronger management role for functional administrative services managers. Each manager would have end-to-end visibility of and accountability for the delivery of services within his scope of responsibility to all customers served.
- It supports a new reporting relationship between functional managers and service delivery personnel. This includes a direct reporting relationship to NOAA finance and administrative staff and functional relationship to line office administrative staff.
- It streamlines service delivery by eliminating the ASCs as a formal organizational entity in the service delivery structure.
- It provides functional managers with increased visibility into those resources currently deployed in support of finance and administrative services that are currently embedded in NOAA line offices, making it possible to enhance service delivery consistency and to rationalize the deployment of all functional staff throughout the Headquarters-field-line office service delivery continuum.

In order to achieve the objectives of the conceptual function-based service delivery model, we recommend implementation of the To-Be organizational structure shown in Exhibit 1-8. This exhibit depicts the addition of a new role, the Assistant Administrator for Management, the alignment of functional directors underneath this role, and the relationship of the new Assistant Administrator to NOAA and DOC leadership.

Exhibit 1-8: Recommended To-Be Organizational Structure



1.5 SUMMARY OF RECOMMENDATIONS

In conjunction with the proposed new operating model, we have identified six global recommendations, fifty-three function-specific recommendations, and three "other" recommendations for streamlining and improving service delivery. These recommendations support several common themes. These themes include:

- Enhancing planning, budgeting, and goal-setting processes;
- Applying intensive process reengineering and redesign concepts based on internal and external best practices and utilizing available technology;
- Expanding management information systems, to improve process performance and to track key performance indicators and trigger performance improvement initiatives;
- Enhancing staff capabilities through refined competency assessments, an expanded training agenda, and clear performance objectives and accountabilities;
- Enhancing management oversight through improved development, dissemination, and enforcement of policies and procedures; and

- Expanding exploration of outsourcing options for selected processes and activities.

1.5.1 Global Recommendations

In order to support a transition to the proposed new Concept of Operations, we propose the following six global recommendations:

- Establish the Office of the Assistant Administrator for Management;
- Create a Transition Program Management Office (PMO) to manage transaction activities;
- Develop a plan to re-staff key positions in the new organizational structure;
- Assess the ABC initiative and define the steps required to improve the accuracy and utility of the ABC data;
- Conduct a study of the services provided to non-NOAA customers by the finance and administrative function and the costs and revenues associated with such services; and
- Conduct an analysis of the administrative processes and activities carried out within NOAA's line offices.

1.5.2 Functional Recommendations

Fifty-three function-specific recommendations have been made to support NOAA in implementing the new Concept of Operations and improving performance in the eight functional areas within the scope of the study. Opportunities to improve performance were identified by examining current performance in the ASCs, reviewing examples from other Federal Agencies, and considering industry best practices.

To ensure that these recommendations support a common set of objectives, we evaluated potential actions against a set of service delivery improvement criteria. These criteria include: Responsive to Customer Needs, Support Performance Accountability, Leverage Technology, Promote Standardization, Streamline Processes, and Reduce Costs of Service Delivery. Each of the recommendations proposed supports one or more of these criteria. They are listed in Exhibit 1-9 and are fully discussed in subsequent chapters of this Comprehensive Final Report.

1.5.3 Other Recommendations

There are three "other" recommendations. The first two concern the Administrative Management and Executive Secretariat, and the Audit, Internal Control and Information Management Office. In addition, we have included a recommendation concerning the budget function for the Assistant Administrator for Management.

Exhibit 1-9 details the recommendations identified under the new Concept of Operations.

Exhibit 1-9: Global, Function-Specific and Other Recommendations

Area	Recommendations
Global	GL.1 Establish the Office of the Assistant Administrator for Management
	GL.2 Create a transition Program Management Office (PMO) to manage transition activities
	GL.3 Develop a plan to re-staff key positions in the new organizational structure
	GL.4 Assess the ABC initiative and define the steps required to improve the accuracy and utility of ABC data
	GL.5 Conduct a study of the services provided to non-NOAA customers by the finance and administrative function, and the costs and revenues associated with such services
	GL.6 Conduct an analysis of the administrative processes and activities carried out within NOAA's line offices
Finance Services	FS.1 Consolidate Financial Operations into two support groups under the direct control of the Director of Finance/Comptroller
	FS.2 Assess and redesign the activity of recording non-travel disbursements
	FS.3 Assess and redesign the activity of recording undelivered orders
	FS.4 Assess and redesign the activity of processing interfaced disbursements
	FS.5 Assess and redesign the process of recording employee travel disbursements
	FS.6 Implement the CSTARS/CAMS interface
Budget Services	BS.1 Assess and redesign the entire budget process
	BS.2 Align the budget process (formulation through execution) by program as recommended by NAPA
	BS.3 Transfer PA&E to the direct control of the Director of Planning Budget, and Performance
	BS.4 Incorporate Business Management Fund and ABC in PA&E
Acquisition Services	AS.1 Consolidate acquisition operations into two support groups under the direct control of the Director of Acquisitions
	AS.2 Create simplified acquisitions workstream
	AS.3 Create contracts workstream
	AS.4 Increase customer outreach
	AS.5 Implement CSTARS/CAMS interface
	AS.6 Provide in-house CSTARS support
	AS.7 Increase audit and compliance support
	AS.8 Increase staff training
Grants Management	GM.1 Transfer responsibility for the Cooperative Agreement activity from MASC to Headquarters
	GM.2 Deliver additional training at Program Offices
	GM.3 Leverage Grants Online capabilities within NOAA to improve Program Office business processes

Area	Recommendations
	GM.4 Conduct analysis to extend Grants Online DOC-wide
Workforce Management	WM.1 Consolidate Workforce Management operations into two support groups under the direct control of the Director of Human Resources
	WM.2 Standardize the organizational structure of HR divisions so that Employee Relations Specialists and Benefits Coordinators are distinct from Staffing Specialists and align with customers
	WM.3 Create a single, unified office, with a direct reporting line to the Deputy Undersecretary of NOAA, to house all the EEO, Civil rights, and Diversity related functions
	WM.4 Automate the SF-52/SF-50 Forms (using a COTS/GOTS package) and reengineer associated processes
	WM.5 Provide training, communication, and change management support for the Commerce Online (COOL) hiring system to HR staff and line office managers
	WM.6 Consolidate all Time & Attendance Coordination activities in Boulder, as well as all related activities, such as the Leave Share and Leave Bank Program coordination activities
	WM.7 Develop and implement the capability to provide strategic Workforce Planning and Comprehensive Training and Development services to NOAA Staff through the Office of Human Resources
	WM.8 Conduct strategic workforce planning
Facilities and Logistics Services	FL.1 Consolidate design and construction (D&C) services delivery capacity to Eastern and Western Operations and implement a web-based Project Management System to support D&C
	FL.2 Provide all policy and procedures directions at a consolidated Construction Projects Office (CPO) at the Real Property and Facilities Headquarters in Washington, DC
	FL.3 Consolidate real property acquisition and management (RPAM) services delivery capacity to the Eastern and Western Operations located in Washington, DC and Seattle, WA and build interfaces from existing systems to a new project management system
	FL.4 Consolidate personal property management (PPM) services delivery capacity at Eastern Operations
	FL.5 Implement a mobile, handheld personal property inventory management and tracking technologies to facilitate the utilization of standardized inventory control processes to support annual audit activities
	FL.6 Consolidate printing and publication (P&P) services delivery capacity at Eastern Operations
	FL.7 Maximize outsourcing / partnership opportunities for Buildings Management nationwide, with specific focus on Seattle, WA and Washington, DC
	FL.8 Optimize Shipping and Handling / Storage Program Cost Structures
	FL.9 Consolidate copy center, buildings management, shipping / handling, storage / storeroom services delivery capacity in Boulder, CO
	FL.10 Transfer CASC buildings management services oversight responsibility (located in Kansas City, MO) to Lafayette, LA and transfer contract / management responsibility for on-site buildings management contractors to NMFS
	FL.11 Establish a Director, Real Property, Facilities, and Logistics position, establish well-defined service area Division Chief positions at headquarters, realign all Operations based staff to report directly to their respective headquarters-based Division Chief, and eliminate the existing ASC-based Facilities and Logistics Division Chief positions

Area	Recommendations
	FL.12 Transfer management and operations responsibilities for the National Logistics Support Center (NLSC) to the National Weather Service (NWS) (pending results from the A-76 competition)
Information Technology Services	IT.1 Consolidate IT Consulting and Application Development Support located at Headquarters, reporting to the Director of Information Technology
	IT.2 Consolidate Finance and Administrative Service Enterprise Architecture Support, Policy and Planning to the Finance and Administrative Service Director of Information Technology, and update enterprise technology
	IT.3 Transfer the support for FTS/Telecom to HQ, reporting to the Director of Information Technology
	IT.4 Transfer Ownership of the MASC Library to the Library and Information Services Division within the National Oceanographic Data Center (NODC)
	IT.5 Standardize and consolidate the Help Desk activity and administer a Centralized Call Center (Help Desk)
	IT.6 Implement a formal Help Desk application and develop a defined Customer Relationship Model (CRM)
	IT.7 Supplement operational IT Infrastructure support with Federal contractors
	IT.8 Consolidate IT Security and Disaster Recovery Planning
	IT.9 Conduct a formal assessment on the performance and user requirements for the finance and administration Information Technology Center
Environmental Compliance and Health & Safety	EC.1 Consolidate environmental compliance, health and safety (ECHS) services delivery capacity to Eastern and Western Operations locations in Seattle, WA and Washington, DC, redefine the roles and responsibilities of ECHS staff, and enhance the web-hosted Assessment Management (WHAM) system to accommodate the comprehensive ECHS lifecycle
	EC.2 Realign Regional Safety Managers (RSMs) and associated staff from each local Facilities and Logistics Division to the Environmental Compliance, Health, Safety and Security Office (ECHSSO) at Headquarters
Other	OT.1 Establish a Management Support Office (MSO) to serve as the Budget Office for the new Assistant Administrator for Management
	OT.2 Assess and redesign the records management process for the Administrative Management and Executive Secretariat (AMES)
	OT.3 Provide additional study assistance for the Competitive Sourcing (CS) Program

1.6 SUMMARY TRANSITION PLAN

The transition to a function-based service delivery model represents a significant departure from the As-Is model and will require substantial changes in the way services are currently provided.

In an effort to manage this transition, Booz Allen recommends a phased implementation approach over a three-year period. This timeline will allow for aggressive yet achievable implementation schedules as well as ensure that the organization is not kept in suspense longer than necessary. The three phases include:

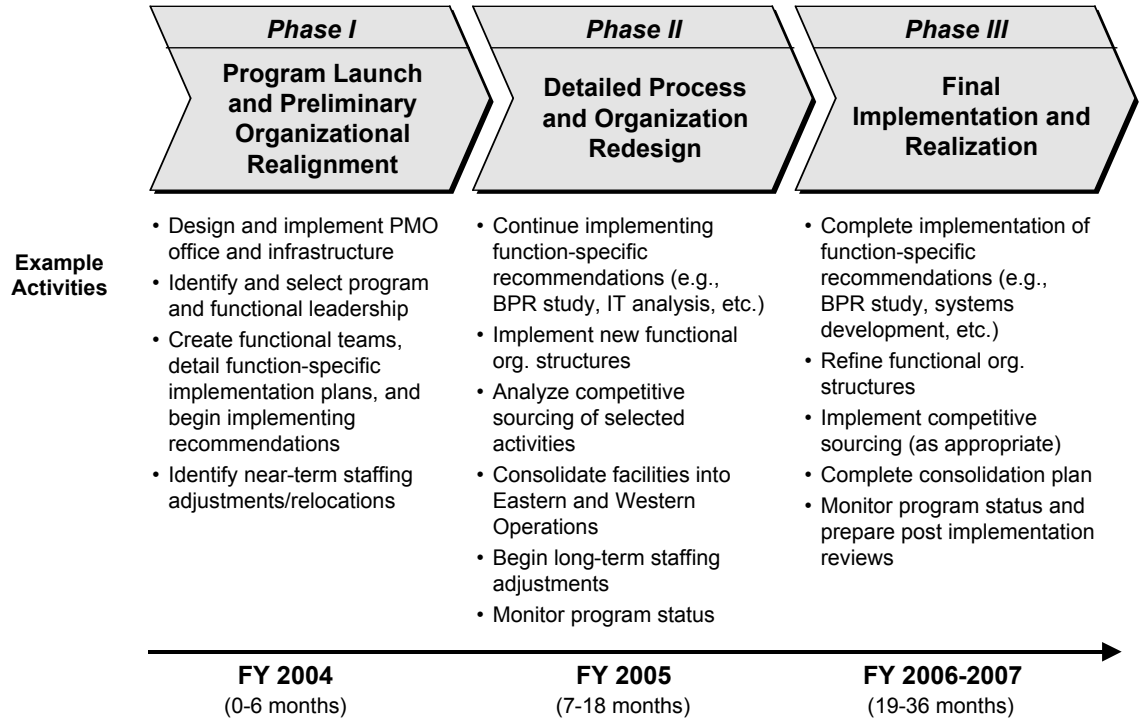
Phase I. The "Program Launch and Preliminary Organizational Realignment" phase will span the first six months of the transition and begin with the tasks necessary to support the plan through completion. This phase represents the initial program organization and the early realignment of the top-level organization into the function-based service delivery model.

Phase II. The "Detailed Process and Organization Redesign" phase, spanning months 7 to 18 from the outset of the plan, will include the completion of activities for several recommendations as well as the initiation of several of the recommendations that typically require longer implementation timelines (e.g., competitive sourcing analysis, information technology enhancements, etc.).

Phase III. The "Final Implementation and Realization" phase takes place in months 19 to 36 months of the transition and includes the completion of several of the function-specific recommendations as well as the refinement of the new organizational structure. We expect several initiatives begun in Phase II (i.e., information technology and competitive sourcing implementation) to be completed by the end of this phase. This phase will also be used to refine the organization structure, processes, policies, etc. (as needed) and to review the results of the overall transition program.

A high-level view of the three-phased approach is shown in Exhibit 1-10.

Exhibit 1-10: Phased Implementation Approach



The phases, and the sequencing of the transition activities within each phase, are meant to ensure that any activities on the program's critical path are completed in time to allow for other dependent efforts to be initiated. Booz Allen has identified the most important of these critical path activities and success factors to be:

1. Establishment of a Program Management Office (PMO) to direct the implementation of the program with responsibility for reporting progress to the new Assistant Administrator for Management.
2. Identification of NOAA functional leadership teams to lead the restructuring of each administrative service and the appointment of a Transition Advisory Board of senior NOAA and DOC executives to oversee transition activities. Involvement by representatives of staff from all levels of the organization will be required in planning, conducting, and evaluating the impact of transition activities.
3. Identification of a reliable funding stream for the program, with well-defined return on investment expectations. This will be an ongoing responsibility requiring coordination between the program management office and NOAA leadership.
4. Implementation of a communications and change management strategy to ensure that staff is informed about the objectives, schedule, and management of

the program. This strategy would provide an ongoing framework for two-way communication and ensure that issues related to the transition are effectively identified and addressed.

NOAA's ability to realize the benefits of the recommended service delivery model and the ultimate success of the program as a whole will rely heavily on the organization's ability to manage and deliver upon these critical success factors. Failure to deliver on one of these factors (e.g., full commitment from senior management, securing adequate funding, etc.) would likely change the context of the recommendations, put the program at risk, and may result in a recommendation to suspend the implementation.

For this reason, Booz Allen encourages careful consideration of these critical success factors and has identified detailed recommendations for addressing them early in the transition and managing them throughout the three-year implementation timeline. Many of these success factors will be addressed by the formation of a strong program management office (PMO) and supporting infrastructure. Once this infrastructure is in place, the PMO will be able to identify and deploy resources to begin implementation, begin executing a communications strategy to build awareness and understanding, and monitor and report on progress. A more detailed description of the PMO is included in Section 13.

1.7 SUMMARY COSTS AND BENEFITS

Consistent with Office of Management and Budget (OMB) principles, the recommendations described in the new Concept of Operations are financially justified. In this current age of streamlining, accountability, and "doing more with less," the Federal Government has made vigilant financial management a high priority. Implementing the Concept of Operations will provide NOAA with a positive return on investment and will save NOAA millions of dollars over the long term.

Our cost benefit analysis is summarized in four parts:

- Current and future staffing levels
- Current and future operating costs
- Transition costs
- Benefits achieved

We first discuss the impact on staffing levels of the proposed new Concept of Operations. Next, we discuss the impact on operating costs. We demonstrate that substantial reductions can be achieved with respect to both staffing levels and operating costs if the new approach is implemented. We then identify the costs associated with transitioning from the As-Is model to the To-Be model. Finally, we present an analysis of the costs and benefits to be gained by committing to the new model and implementing the transition plan.

Current and Future Staffing Levels

Data on As-Is and To-Be staffing levels for government and contractor staff is presented in Exhibit 1-11. Data is presented in the form of FTEs and is shown for all locations. The column labeled "Current 2003" shows the staffing levels today (based on our analysis and refinement of available ABC data). The column labeled "Final 2007" shows the staffing levels projected if the new Concept of Operations is adopted. The "Net Change" column indicates the total net change for staffing. As the exhibit shows, the adoption of the new Concept of Operations would result in a net reduction of approximately 144 government and 11 contractor staff.

Because service delivery points would change in the new model, a note on the changes to the current ASCs may be required. Staffing numbers in the first row reflect the changes to the FTE count for staff located in the Washington, DC Metro area. In the current model, these FTEs are considered to be part of the DC Metro "fifth ASC." In the new model, these FTEs reflect the staffing level of the new Eastern Operations support group. Similarly, FTEs in the second row are currently associated with WASC; in the new model, these FTEs and those identified in the "MASC/Western Ops" row would together reflect the staffing level of the Western Operations support group. FTEs associated with the performance of headquarters functions are addressed separately in the row labeled "HQ."

Exhibit 1-11: As-Is and To-Be Staffing Levels

Govt FTE	Current 2003	Phase I	Phase II	Phase III	Final 2007	Net Change
DC Metro/Eastern Ops	231.4	0	30.2	22.7	284.3	52.9
WASC/Western Ops	116.7	0	11.4	17.8	146.0	29.2
EASC	71.9	0	-40.0	-31.9	0	-71.9
CASC	118.8	0	-80.0	-38.8	0	-118.8
MASC/Western Ops	111.5	0	-40.6	-20.3	50.6	-60.9
Headquarters	267.6	0	24.3	1.0	292.9	25.3
Total	917.9	0	-94.7	-49.4	773.7	-144.2

Contractor FTE	Current 2003	Phase I	Phase II	Phase III	Final 2007	Net Change
DC Metro/Eastern Ops	95.0	0	-5.4	2.3	91.9	-3.1
WASC/Western Ops	46.2	0	2.8	0.0	49.0	2.8
EASC	3.4	0	-1.1	-2.3	0	-3.4
CASC	7.6	0	-7.6	0	0	-7.6
MASC/Western Ops	8.1	0	-0.5	10.5	18.2	10.0
Headquarters	57.4	0	4.0	8.5	69.9	12.5
Total	217.8	0	-7.8	19.0	229.0	11.2

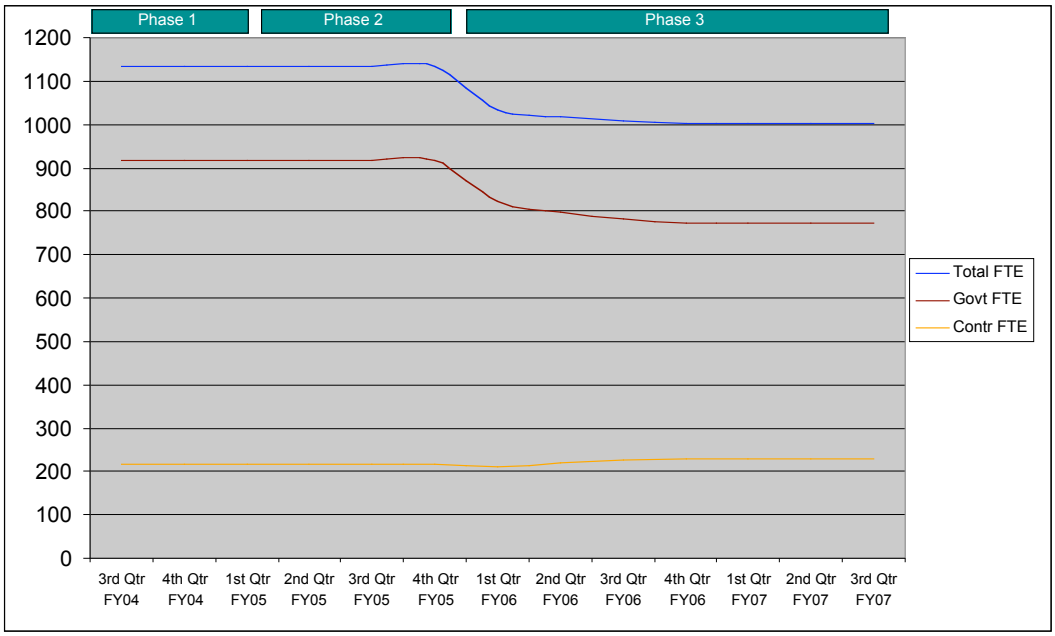
To provide further detail, we present Exhibit 1-12, which shows a breakdown of staff (in FTEs) for the To-Be model by function.

Exhibit 1-12: Overall To-Be Staffing Model- By Function

Functional Area	Western Operations	Eastern Operations	Headquarters	Total FTEs	Total %
Acquisition					
Government FTE	34.0	59.0	18.0	111.0	11%
Contractor FTE	0	0	0	0	
Grants					
Government FTE	0	21.0	0	21.0	2%
Contractor FTE	0	0	0	0	
Finance					
Government FTE	44.2	70.4	105.0	219.6	24%
Contractor FTE	0	0	16.0	16.0	
Budget					
Government FTE	0	0	43.0	43.0	5%
Contractor FTE	0	0	3.5	3.5	
Workforce Management					
Government FTE	75.5	55.5	39.5	170.5	21%
Contractor FTE	0.6	3.9	40.4	45.0	
Information Technology					
Government FTE	12.0	36.0	11.0	59.0	11%
Contractor FTE	3.0	34.0	10.0	47.0	
Facilities					
Government FTE	26.8	38.4	38.4	103.6	22%
Contractor FTE	63.5	54.0	0.0	117.5	
Environmental / Logistics					
Government FTE	4.0	4.0	6.0	14.0	1%
Contractor FTE	0	0	0	0	
Global					
Government FTE	0	0	6.0	6.0	1%
Contractor FTE	0	0	0	0	
Other					
Government FTE	0	0	26.0	26.0	3%
Contractor FTE	0	0	0	0	
TOTAL Government FTE	**196.5**	**284.3**	**292.9**	**773.7**	**77%**
TOTAL Contractor FTE	**67.1**	**91.9**	**69.9**	**229.0**	**23%**
TOTAL ALL FTE	**263.7**	**376.2**	**362.8**	**1002.6**	**100%**

The transition from the As-Is to the To-Be staffing model is proposed to occur over the three years (and three phases) of the transition plan. The change in staffing levels over time is displayed in Exhibit 1-13.

Exhibit 1-13: Overall Impact of Staffing Across Three Phases



Current and Future Operating Costs

The costs associated with the current and proposed operating models are provided in Exhibits 1-14 and 1-15. As indicated in Exhibit 1-14, current annual operating costs are $177,062,000. As indicated in Exhibit 1-15, projected annual operating costs for the new model are $154,057,000. The difference between the As-Is and To-Be operating models is $19,129,000 before transfers. (The term "transfers" refers to the shifting of functions and staff out of NFA and into NOAA line offices.) This savings represents a 10.8% reduction from the As-Is operating budget. In addition, if the finance and administrative services organization decides to transfer certain staff to other offices as recommended, the net cost differential in annual operating costs between the two models is then $23,005,000. This "after transfer" reduction represents a change of 13.0% on an annual basis.

Our analysis of current and proposed operating costs includes both direct labor and overhead costs. NFA's As-Is administrative overhead costs reportedly total approximately $60.5 million per year. Booz Allen reviewed these costs to the extent possible within NOAA's current cost accounting structure, and categorized them as either "fixed" or "variable." "Fixed" overhead costs included IT infrastructure/support, physical security contracts, etc.; "variable" overhead costs include transportation, communications, etc. This categorization resulted in $49.6 million of "fixed" and $10.9 million of "variable" overhead costs in the "as-is" cost profile. Many of these costs, both fixed and variable, could not be described by NOAA in the detail required for a

rigorous overhead cost analysis. The details of our categorization of overhead costs are shown in Appendix A.

In estimating the impact of restructuring on overhead (e.g., non-labor) costs, Booz Allen conservatively assumed that "fixed" overhead costs would remain essentially unchanged, except for costs that could be directly associated with proposed facilities consolidation. It is clear, however, that in organizational transformations, many "fixed" overhead costs can in fact be reduced (e.g., become "variable" costs) under new concepts of operations. For example, service contracts can be renegotiated to reflect new service requirements, staffing levels, physical facilities, etc. However, due primarily to imprecision in NOAA's administrative cost accounting, we had only limited ability to estimate the projected impact of restructuring on overhead costs, and have therefore conservatively stated such impacts, as described above.

Exhibit 1-14: Total Annual Operating Costs for As-Is

Summary *As-Is*	EASC		CASC		MASC		WASC		Wash DC		Headquarters		Total	
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost
Government Labor	71.9	$ 7,490	118.8	$ 11,748	111.5	$ 11,262	116.7	$ 12,085	231.4	$ 23,029	267.6	$ 27,691	917.9	$ 93,306
Contractor Labor	3.4	$ 381	7.6	$ 921	8.1	$ 948	46.2	$ 5,043	95.0	$ 8,742	57.4	$ 7,231	217.8	$ 23,265
Variable Overhead		$ 631		$ 805		$ 1,394		$ 371		$ 3,620		$ 4,068		$ 10,889
Fixed Overhead		$ 161		$ 217		$ 226		$ 3,453		$ 161		$ 45,384		$ 49,602
Total	75.4	$ 8,663	126.42	$ 13,691	119.6	$ 13,829	162.9	$ 20,952	326.3	$ 35,552	325.0	$ 84,375	1135.6	$ 177,062

Note: Dollars are in thousands ($000s)

Exhibit 1-15: Total Annual Operating Costs for To-Be

Summary *To-Be*	Western Operations		Eastern Operations		Headquarters		Total		Net Cost Differential After Transfers *	Percent Change
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost		
Government Labor	196.5	$ 20,114	284.3	$ 28,643	292.9	$ 30,654	773.7	$ 79,411	$ 13,895	-14.9%
Contractor Labor	67.1	$ 6,858	91.9	$ 8,632	69.9	$ 8,643	229.0	$ 24,133	$ (868)	3.7%
Variable Overhead		$ 450		$ 431		$ 3,822		$ 4,704	$ 6,185	-56.8%
Fixed Overhead		$ 265		$ 161		$ 45,384		$ 45,810	$ 3,792	-7.6%
Total	263.7	$ 27,687	376.2	$ 37,867	362.8	$ 88,503	1002.6	$ 154,057	$ 23,005	-13.0%

Summary *To-Be*	Gross Cost Differential Before Transfers*	Transfers to NOAA	Net Cost Differential After Transfers*
Government Labor	$ 10,769	$ 3,125	$ 13,895
Contractor Labor	$ (1,286)	$ 419	$ (868)
Variable Overhead	$ 5,854	$ 331	$ 6,185
Fixed Overhead	$ 3,792	-	$ 3,792
Total	$ 19,129	$ 3,875	$ 23,005

Notes: *Dollars are in thousands ($000s)*
**Gross cost differential before transfers: $19M is the actual finance and administrative services cost savings by implementing the To-Be model*
**Net cost differential after transfers: $23M is the total reduction in Operating Budget for finance and administrative services by implementing the To-Be Model*
Transfers occur within Facilities/Logistics and Information Technology
Calculations assume current workload and exclude effort for transition costs

To provide further detail, we present Exhibits 1-15 and 1-16, which show a breakdown of the As-Is and To-Be operating costs by function.

Exhibit 1-15: As-Is Operating Costs by Function

As-Is Operating Costs	EASC	CASC	MASC	WASC	Wash DC	HQ	Total
Acquisition	$ 1,270	$ 2,425	$ 1,522	$ 2,422	$ 6,006	$ 1,982	$ 15,628
Grants	$ -	$ -	$ 104	$ -	$ 1,920	$ 150	$ 2,174
Finance	$ 2,073	$ 2,241	$ 1,385	$ 2,437	$ 5,942	$ 11,766	$ 25,844
Budget	$ -	$ -	$ -	$ -	$ -	$ 6,717	$ 6,717
Workforce Management	$ 2,529	$ 2,142	$ 3,055	$ 3,450	$ 3,585	$ 7,995	$ 22,755
Information Technology	$ 473	$ 784	$ 2,028	$ 757	$ 7,652	$ 14,252	$ 25,946
Facilities	$ 1,177	$ 4,600	$ 3,791	$ 7,789	$ 7,058	$ 7,334	$ 31,749
Environmental / Logistics	$ 112	$ 224	$ 224	$ 224	$ 112	$ 673	$ 1,570
Global	$ 1,028	$ 1,275	$ 1,721	$ 3,872	$ 3,277	$ 12,445	$ 23,618
Other	$ -	$ -	$ -	$ -	$ -	$ 21,061	$ 21,061
Total	$ 8,663	$ 13,691	$ 13,829	$ 20,952	$ 35,552	$ 84,375	$ 177,062

Note: Dollars are in thousands ($000s)

Exhibit 1-16: To-Be Operating Costs by Function

To-Be Operating Costs	Western Operations	Eastern Operations	Headquarters	Total
Acquisition	$ 3,887	$ 6,717	$ 2,779	$ 13,383
Grants	$ -	$ 2,001	$ 150	$ 2,151
Finance	$ 4,288	$ 6,724	$ 11,766	$ 22,778
Budget	$ -	$ -	$ 6,501	$ 6,501
Workforce Management	$ 8,175	$ 6,314	$ 9,996	$ 24,485
Information Technology	$ 1,547	$ 7,652	$ 14,252	$ 23,451
Facilities	$ 9,341	$ 8,011	$ 9,585	$ 26,937
Environmental / Logistics	$ 449	$ 449	$ 673	$ 1,570
Global	$ -	$ -	$ 10,798	$ 10,798
Other	$ -	$ -	$ 22,002	$ 22,002
Total	$ 27,687	$ 37,867	$ 88,503	$ 154,057

Note: Dollars are in thousands ($000s)

Transition Costs

A summary of the transition costs required to move the organization from the current operating model to the proposed new model are provided in Exhibit 1-17. These costs account for more than $22.1 million in both one-time and recurring transition costs. Costs are broken down into major cost categories, including Studies and Analysis, IT Costs, Other Costs, and Staff-Related Costs. They are incurred over the full life cycle of the transition. Further detail on staff-related costs is provided in Exhibit 1-18. Costs for downsizing and re-staffing are presented for each function. Detailed recommendation-specific cost estimates, including the transition activities, are included in Section 13-2.

Exhibit 1-17: Transition Cost Summary Resulting from Recommendations Over Three Years

	Phase I	Phase II	Phase III	Total
Studies and Analysis	$ 3,417,293	$ 7,234,757	$ 2,121,450	$ 12,773,500
Program Management (includes 7 Govt / 1 Contractor FTEs)	$ 617,293	$ 1,204,157	$ 1,821,450	**$ 3,642,900**
Competitive Sourcing Assessment	$ -	$ 105,600	$ -	**$ 105,600**
Communications	$ 100,000	$ 200,000	$ 300,000	**$ 600,000**
Policies and Procedures Development	$ 50,000	$ 50,000	$ -	**$ 100,000**
Organizational Analysis and Redesign	$ 1,375,000	$ 2,025,000	$ -	**$ 3,400,000**
Process Analysis and Design	$ 1,175,000	$ 2,700,000	$ -	**$ 3,875,000**
IT Planning and Analysis	$ 100,000	$ 950,000	$ -	**$ 1,050,000**
IT Costs	$ -	$ 1,425,000	$ 1,975,000	$ 3,400,000
IT Hardware and Software (One-Time)	$ -	$ 850,000	$ 900,000	**$ 1,750,000**
IT Implementation (One-Time)	$ -	$ 575,000	$ 1,075,000	**$ 1,650,000**
Other Costs	$ 25,000	$ 360,000	$ 465,000	$ 850,000
Training Development	$ -	$ 50,000	$ -	**$ 50,000**
Training (Recurring)	$ -	$ 200,000	$ 300,000	**$ 500,000**
Travel (Recurring)	$ 25,000	$ 110,000	$ 165,000	**$ 300,000**
Staff-Related Costs	$ -	$ 3,057,742	$ 2,045,200	$ 5,102,941
Downsizing	$ -	$ 2,120,804	$ 1,385,306	**$ 3,506,110**
Restaffing (Relocations/Hires)	$ -	$ 936,938	$ 659,894	**$ 1,596,832**
Total	**$ 3,442,293**	**$ 12,077,499**	**$ 6,606,650**	**$ 22,126,441**

Note: Actual dollars

Exhibit 1-18: Staff Transition Costs

	Phase I		Phase II		Phase III		Total	
	Downsizing	Restaffing	Downsizing	Restaffing	Downsizing	Restaffing	Downsizing	Restaffing
Acquisition	$ -	$ -	$ 286	$ 143	$ 286	$ 178	$ 571	$ 321
Grants	$ -	$ -	$ 14	$ 12	$ -	$ -	$ 14	$ 12
Finance	$ -	$ -	$ 371	$ 154	$ 404	$ 181	$ 775	$ 335
Budget	$ -	$ -	$ -	$ 24	$ -	$ -	$ -	$ 24
Workforce Mgmt	$ -	$ -	$ 234	$ 178	$ 363	$ 289	$ 597	$ 467
IT	$ -	$ -	$ 229	$ 24	$ 186	$ -	$ 414	$ 24
Env Compl	$ -	$ -	$ 71	$ 59	$ -	$ -	$ 71	$ 59
Facilities	$ -	$ -	$ 544	$ 343	$ 147	$ -	$ 691	$ 343
Global	$ -	$ -	$ 371	$ -	$ -	$ 12	$ 371	$ 12
Other	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ 2,121	$ 937	$ 1,385	$ 660	$ 3,506	$ 1,597

Note: Dollars are in thousands ($000s)

Benefits Achieved

Exhibit 1-19 identifies the impact on operating costs of the implementation of the transition plan. The cumulative savings achieved in three years is based on the gross cost differential before transfers, which totals $52.5M (FY04 constant-year dollars). The break-even point is achieved at the end of Phase 2.

Exhibit 1-19: Cash Flow over Three Years by Phase

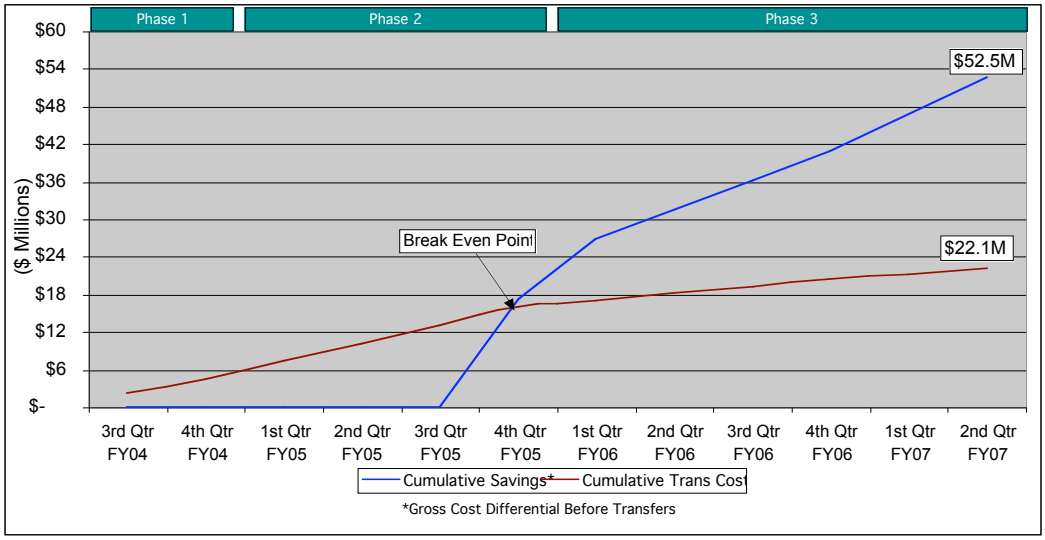
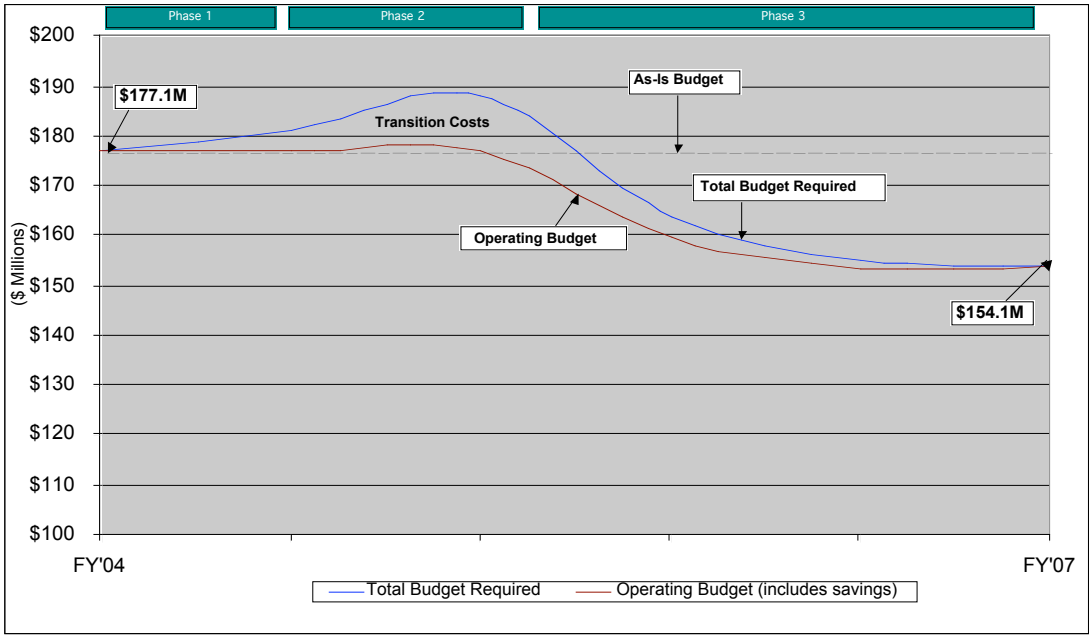


Exhibit 1-20 depicts the projected budget requirements for Finance and Administrative Services functions during the transition period, assuming current workloads. The bottom line shows the NFA Operating Budget, starting at $177M minus the estimated savings per year. The top curve shows the adjusted Operating Budget plus the estimated transition costs per year. This top line represents the total funds NFA will need per year to reach the new To-Be model. Therefore, the area between the two curves shows estimated transition costs.

Exhibit 1-20: Operating Budget over Three Years by Phase



2. INTRODUCTION

This chapter reviews the study's objectives and scope, approach and analytical methodologies, major activities and deliverables, schedule, personnel interviewed, the NOAA study team, and the structure of this report.

2.1 STUDY OBJECTIVES AND SCOPE

The National Oceanic and Atmospheric Administration (NOAA) is a bureau of the U.S. Department of Commerce (DOC). NOAA employs approximately 12,500 people located in approximately 700 buildings around the country.

NOAA's finance and administrative services organization is responsible for providing financial and administration support to NOAA and other DOC agencies. The number of authorized positions is approximately 1,014 people who are located in several locations in the Washington, DC area and at four Administrative Support Centers (ASCs) located in Norfolk, Virginia; Kansas City; Missouri; Boulder, Colorado; and Seattle, Washington. Some staffing the Washington, DC area provide operational services, while others provide oversight and policy services.

NOAA's finance and administrative services organization has been the subject of concern for many years. In fact, at least 12 studies of its operations have been conducted over the past 15 years resulting in few implemented changes. Today NOAA top management is committed to rigorously analyze and streamline its operations, taking full advantage of current technology, reconfiguring it to support current and known future operations, and "right-sizing" it to ensure that the investment made in financial and administrative support is consistent with its output. For example, it is not clear that work is properly distributed between Headquarters and the field or among the ASCs. Indeed, the extent of the existing workload is not completely known. NOAA's finance and administrative services organization has gathered a great deal of workload information during the past two years in conjunction with its Activity Based Costing (ABC) efforts, but that effort is still being refined and the information produced is not complete.

NOAA management has also expressed concern that while the organization includes as many as 1,014 authorized positions, approximately 145 positions are unfilled. In addition, very little of the staff resource is devoted to "Headquarters" activities, such as policy making, resource allocation, oversight and planning. Most of the work done by finance and administrative services in the Washington area is operational in nature, leaving few available resources to engage in true policy formulation and direction. Management seeks recommendations to address how to provide such Headquarters activities.

In response to the above issues and concerns, in September 2003, NOAA requested that Booz Allen Hamilton conduct a study to evaluate the current performance of its finance

and administrative functions and provide recommendations for a new service delivery model based on its findings. This document presents the results of this study. The functions studied include:

- Finance Services;
- Budget Services;
- Acquisition Services[1];
- Grants Management;
- Workforce Management;
- Facilities and Logistics;
- Information Technology Services; and
- Environmental Compliance and Health & Safety.

The study examined the activities, processes, and workload associated with the delivery of these administrative services in ASCs and NOAA Headquarters functional offices.

NOAA requested that Booz Allen analyze the required number of administrative service field sites, their locations, and the nature of the function that they should perform. Such an analysis was to take full cognizance of available information technology to mitigate the effects of distance support. Since reconfiguring field support is a substantial endeavor with significant potential impacts on employees' lives and costs to the Government, NOAA management wished to be made fully aware of the potential costs and benefits of substantial reconfiguring.

Alternative operational and configuration strategies were anticipated by NOAA to potentially involve reassignment of functions, geographic redistribution of resources and outsourcing of various functions. NOAA management wished to consider all appropriate strategies, "up to and including dramatic restructuring."

NOAA top management asked Booz Allen to make recommendations for streamlining and reconfiguring NOAA administrative services – based upon workload data, benchmarking analyses, and Booz Allen's experience in similar analyses.

The results of this study have been documented in four supporting deliverables and this Comprehensive Final Report. The supporting deliverables are:

Deliverable One:	Workload Analysis
Deliverable Two:	Benchmarking Study
Deliverable Three:	Recommendations for Cost-Effective Service Improvement

[1] The DOC Bankcard Center is not included in the scope of Acquisitions Services, even though it is housed at CASC. The Director of the Bankcard Center reports to the Director of Acquisitions at DOC and the Center supports all agencies of the Department of Commerce. The five FTE's associated with the Bankcard Center and their associated direct costs ($497,000 per year) are excluded from this analysis.

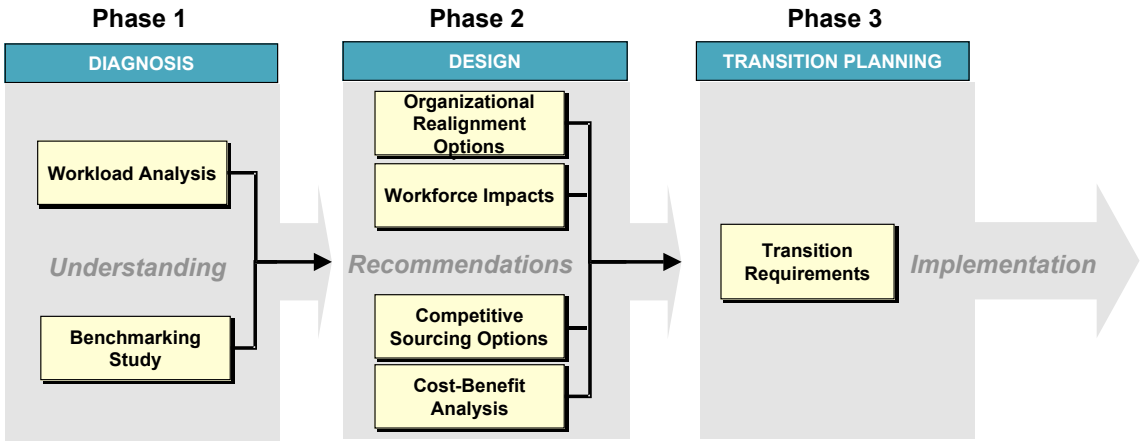
Deliverable Four: Transition Plan

Substantial additional detail is provided in the above deliverables. This Comprehensive Final Report summarizes the findings in those documents. For further information, please consult the supporting documents.

2.2 APPROACH/AND ANALYTICAL METHODOLOGY

Booz Allen utilized a three-phased approach to accomplish the overall goals of this study. As depicted in Exhibit 2-1, these phases were: (1) Diagnosis; (2) Design; and (3) Transition Planning. This approach was designed to build on available data, to look both internally at current NOAA performance and externally at the performance of other agencies, and to utilize Booz Allen's experience in assisting Federal organizations in transitioning to new, more effective performance models.

Exhibit 2-1: Study Approach



- The purpose of Phase 1 was to review available data resources, collect additional information to validate, modify, and extend that data, and report on our findings with regard to workload and productivity levels for finance and administrative functions both within NOAA and with comparable benchmarking partners. The results of Phase 1 are summarized in Interim Deliverables One: Workload Analysis, November 17, 2003 and Interim Deliverable Two: Benchmarking Analysis, November 17, 2003.
- The purpose of Phase 2, Design, was to identify potential organizational realignment options, evaluate the impacts of each option on staffing levels and distribution, and consider where outsourcing might play a role in an improved service delivery model. The results of Phase 2 are summarized in Interim Deliverable Three: Recommendations for Cost-Effective Service Delivery, December 15, 2003.

- The purpose of Phase 3 was to address the need for a Transition Plan to move the organization from the existing service delivery model to the proposed model. The results of Phase 3 are summarized in Interim Deliverable Four: Transition Plan, December 15, 2003.

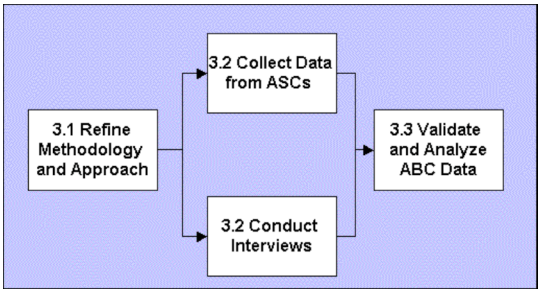
The following pages summarize the key activities carried out and the analytical methodologies employed in each phase of the project.

Phase 1: Diagnosis

Workload Analysis

The Booz Allen workload analysis team consisted of individuals who are expert in each of the functional areas addressed, as well as individuals who are expert in ABC analysis. Our workload analysis was performed using a methodology that was designed to provide NOAA management with the ability to evaluate the current distribution of labor across each functional area in an expedited timeframe. Exhibit 2-2 shows the approach we used to evaluate workload data for the eight functions contained within the scope of this study.

Exhibit 2-2: Workload Analysis Methodology

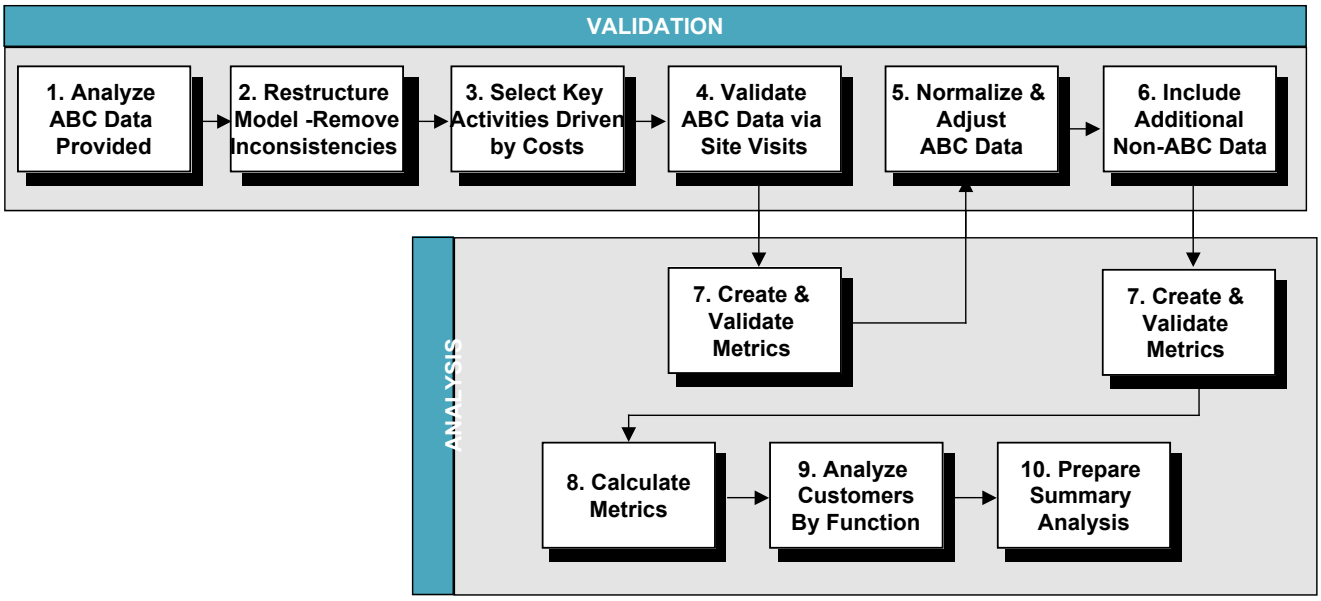


In analyzing the current administrative services workload, we began by reviewing the labor FTE, cost, and transaction volume data contained in NOAA's Activity-Based Costing (ABC) system, as a starting point for validating and refining these data as necessary. Other available information sources were also leveraged, including: interviews during site visits to the four Administrative Support Centers (ASCs); interviews conducted at the Washington, DC "fifth ASC," NOAA Headquarters offices; and interviews with customers supported by NOAA's finance and administrative services staff. We collected information about the current use of information management systems to support work performance, as well as current policies and procedures, current customers, and the issues and challenges facing administrative services. During these visits, substantial assistance was provided to Booz Allen by NOAA management and staff.

We recognized that NOAA has gathered a great deal of workload information during the past two years in conjunction with its ABC efforts, and this provided a valuable

starting point for our analysis, however, we also understand that this information is not complete and the data collection process is still being refined. As requested by NOAA, we used the ABC information as the basis for our workload analysis effort, verifying and refining the information where possible, and extending the data when other information was available. The team used information obtained from NOAA Subject Matter Experts and information obtained through knowledge of industry best practices, interviews, and document review as previously described. Our approach to the validation and analysis of available ABC data is illustrated in the following Exhibit:

Exhibit 2-3: Booz Allen Approach for Validation and Analysis of ABC Data



Step 1: Analyze ABC Data Provided

ABC data for 2001 was not available. Our analysis was based on data available for the full fiscal year for 2002 and the first half of fiscal year for 2003 (as of March 31, 2003). Since complete year-end 2003 ABC data was not available during the time available for the study, each Booz Allen functional team identified current FTE counts by using several inputs, including 2002 "actuals," 2003 data where available, and information collected in interviews and available documentation. The adjusted FTEs provided for 2003 in our study represent a well-informed identification of the current labor associated with each functional area. Therefore, all 2003 data presented in this study should be viewed as the current workload/FTEs for NOAA Finance and Administration.

Step 2: Restructure ABC Model by Removing Inconsistencies

The Booz Allen team reviewed the ABC data and identified inconsistencies in the model. These inconsistencies included differences in the way costs and hours were

collected against activities over different years. The organization began collecting ABC data in 2001. As the ABC collection efforts matured, changes were made to the account structure between 2002 and 2003 to better capture activities. However, this change in the activity account structure made it difficult to compare the data across fiscal years. In addition, at the process level, several activities could not be aligned with respect to a common reference number in the years 2002 and 2003. In many instances, activities were added, combined and/or dropped entirely across years. Our conversations with the NOAA ABC team confirm that the organization is aware that the overall ABC structure has not been consistently applied in tracking costs across years in the IT, facilities, and finance functional areas. These inconsistencies are not unusual. NOAA is typical of Federal Agencies that adopt an ABC approach. It generally takes several years to refine the ABC methodology, and the consistency and reliability of the data collected can be expected to increase over time.

Documented assumptions and notes on the ABC data were not available, so previous studies were reviewed to gain an understanding of the ABC data structure. The NOAA ABC team contributed greatly to our understanding of the data. The Booz Allen team mapped the 2002 activities to the 2003 activities. It is important to note that where 2002 data is presented in this report, it directly reflects our best understanding of the 2002 ABC data. When 2003 data is presented, it reflects our best understanding of the current workload and associated costs. Our understanding of the 2003 data was informed by any available ABC data for 2003, as well as information obtained through interviews with NOAA staff and the use of relevant documents. The 2003 data presented in this report may be best described as "adjusted" workload and transaction data, which has been modified to reflect our understanding of the present state.

Step 3: Select Key Activities Driven by Costs

The NFA "Catalog of Services" lists all functional areas, processes within functional areas, and activities within processes. This served as the universe of activities for the project. An analysis was conducted to identify those activities that contributed to the top eighty percent of the cost of providing services for each functional area. These were the activities our study focused on. An example of this analysis is shown in Exhibit 2-4, using Acquisition Services:

Exhibit 2-4: Pareto Analysis

FUNCTIONAL CATEGORY: ACQUISITION SERVICES			
Function	**Process**	**Total ($)**	**Percentage (%)**
ACQ-S0100 Acquisition Services	Pre-Award and Award Contracts	1,336,150	22
	Pre-Award and Award Simplified Acquisitions and Order	1,264,615	19
	Provide Contract Administration	1,123,935	12
	Perform Acquisition Planning	666,040	11
	Provide Admin for Simplified Acquisition and Orders	558,151	9
ACQ-S0200	Provide Purchase Card	140,673	5

FUNCTIONAL CATEGORY: ACQUISITION SERVICES			
Function	**Process**	**Total ($)**	**Percentage (%)**
Delegated Procurement Authority and Purchase Card	Administration		
ACQ-S0300 Bank Card Services	Provide Customer Services	141,981	2
Total		**$5,231,545**	**80%**

Step 4: Validate ABC Data Via Site Visits

Using available information, Booz Allen validated the ABC data. Where necessary, we made assumptions and adjusted the data. We have documented our adjustments in this section and within each section describing a functional area.

Initiatives to collect ABC data require a sustained effort with adequate buy-in from those that provide the data. During our interviews, some finance and administrative staff members indicated that they understood how the ABC data was compiled and stated that they believed that the data reflected their activities rather well. However, other staff members indicated that they believed costs, FTEs, and transaction data did not reflect their activities with complete accuracy. We also understand this data has not been validated at the business line levels.

The adjusted FTEs in the As-Is analysis were also reconciled against the CAMS data by function across all support centers. Based on this staffing report the validated FTEs were within 1.1% of the overall staffing levels within CAMS.

Steps 5 & 6: Normalize and Adjust ABC Data and Include Additional Non-ABC Data

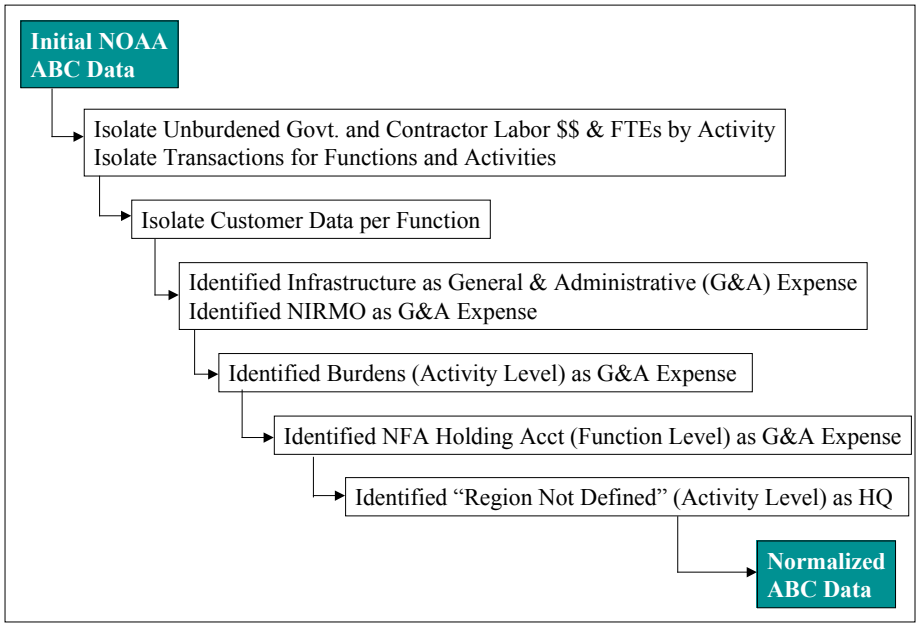
While Booz Allen attempted to validate the data, we needed to make certain adjustments to refine the FTE data and structure of the ABC model through a normalization process detailed in the diagram in Exhibit 2-5. Adjustments were made only when we had a clear indication of the degree and type of change that was needed. All adjustments to the data were carefully tracked. In addition to refining the ABC data, we also expanded the data by including additional information not captured from the site visits. General and Administrative activities were also identified as expenses throughout the ABC model in order to identify direct labor costs.

NOAA's As-Is administrative overhead costs reportedly total approximately $60.5 million per year. Booz Allen reviewed these costs to the extent possible within NOAA's current cost accounting structure, and categorized them as either "fixed" or "variable." "Fixed" overhead costs included IT infrastructure/support, physical security contracts, etc.; "variable" overhead costs include transportation, communications, etc. This categorization resulted in $49.6 million of "fixed" and $10.9 million of "variable" overhead costs in the "as-is" cost profile. Many of these costs, both fixed and variable, could not be described by NOAA in the detail required for a rigorous overhead cost

analysis. The details of our categorization of overhead costs are further described in Appendix A.

In estimating the impact of restructuring on overhead (e.g., non-labor) costs, Booz Allen conservatively assumed that "fixed" overhead costs would remain essentially unchanged, except for costs that could be directly associated with proposed facilities consolidation. It is clear, however, that in organizational transformations, many "fixed" overhead costs can in fact be reduced (e.g., become "variable" costs) under new concepts of operations. For example, service contracts can be renegotiated to reflect new service requirements, staffing levels, physical facilities, etc. However, due primarily to imprecision in NOAA's administrative cost accounting, we had only limited ability to estimate the projected impact of restructuring on overhead costs, and have therefore conservatively stated such impacts, as described above.

Exhibit 2-5: Process for Normalizing ABC Data Set 2002/2003



The initial set of ABC data received from NOAA contained some limitations. However, through our analysis, we were able to derive value by adjusting the data and normalizing its overall structure across fiscal years. Based on our findings, Booz Allen derived workload and productivity measures by regional ASC for each functional area, while also determining the level of service received by various customers, both external to NOAA and Department of Commerce.

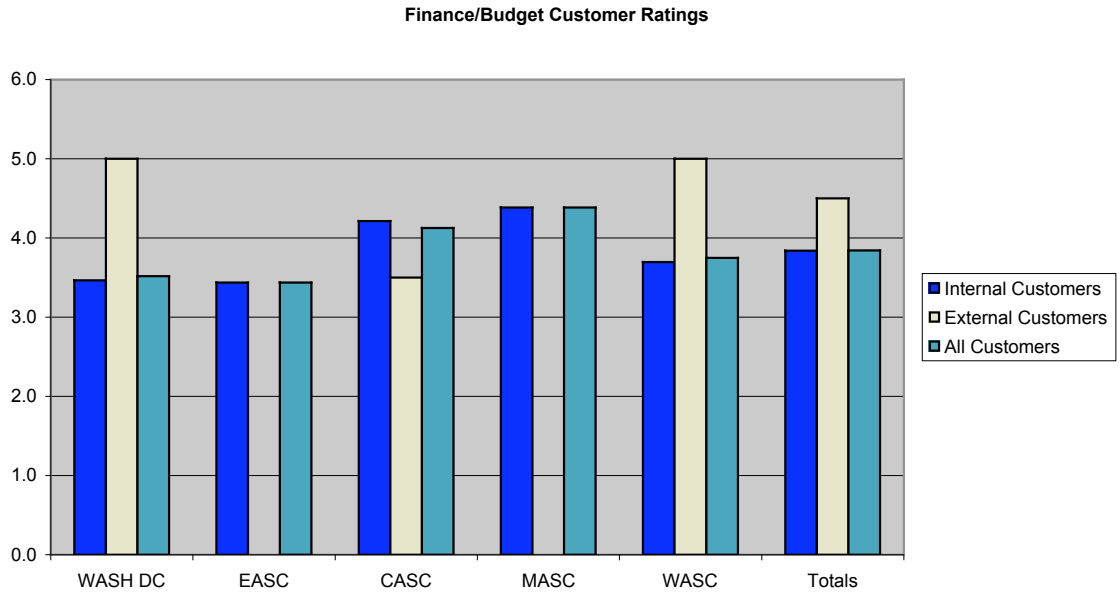
Specific limitations of the initial ABC data include the following:

- Full year ABC data was not available for 2003;
- Units of measure for the transactions were not consistently defined;
- Service names differed across fiscal years;

- Distribution of costs based on defined percentages instead of transaction levels or outputs, which is the standard practice;
- FTEs were derived from calculations in the model instead of direct inputs to the model from a formal collection process such as a survey;
- Reference indicators were not consistently applied in the model, which made difficult to understand the relationships among activities;
- It was not clear if labor and non-labor costs tie to NFA's general ledger; and
- Although the functions in the ABC model are tied to the "Catalog of Services," the activities did not consistently match the list contained in the "Catalog of Services."

As part of the data collection interviews, the team conducted a high-level survey to assess overall customer satisfaction within each functional area. Customers were asked to rate the quality of the services provided by their ASC. Customers were asked to use a 1-5 scale, with 1 as the lowest rating and 5 as the highest as shown in Exhibit 2-6.

Exhibit 2-6: Sample Customer Satisfaction Survey Results



Step 7: Define, Calculate, and Validate Metrics

We identified units of measure by which to define workload, productivity, and service performance. Examples of such measures are shown in the exhibits below.

Exhibit 2-7: Selected Financial Services Measures

Invoice Payment Services – Record Non Travel Disbursements						
Unit of Measure	EASC	CASC	MASC	WASC	WASH DC	AVERAGE
FTEs	6.87	8.67	6.94	11.25	18.99	10.54
Trans Vol	63,839	82,505	64,897	101,688	78,931	78,372
Cycle Time	N/A	3	2	1	2	2
Trans/FTE	9,292	9,516	9,351	9,039	4,156	8,271
Cost/Trans	$5.51	$6 43	$5.57	$4.74	$14.09	$7.27

Exhibit 2-8: Selected Workforce Management Measures

Competitive Placement Measures	EASC	CASC	MASC	WASC	WASH DC
Ratio of HR Personnel to Customers	1:110	1:117	1:77	1:102	1:106
Cost per Competitive Hire (Total Government Labor Cost)	$2,032	$4,101	$5,266	$2,256	$5,018
Cost per Certificate Issued (Total Government Labor Cost)	$2,142	$2,151	$2,527	$2,128	$2,894

In addition to the ABC data provided, some data was obtained from interviews with finance and administrative services personnel, customers, and stakeholders during site visits. Other data was obtained from various systems at NOAA. For example, grants transaction information was obtained from the NOAA grants system. While every effort was made to verify and refine the information where possible within the time constraints of the project, Booz Allen relied on the information provided by the Government to make calculations and comparisons.

Step 8: Analyze Customers by Function

Booz Allen organized the ABC customer information into logical groupings. We attempted to associate level of effort data with specific NOAA customers (NFA and Service Lines), identifying Department of Commerce (non-NOAA) customers, and non-Department of Commerce customers as distinct categories. In the available 2002 ABC data, only a portion of the costs are "mapped" to customers. Of the $193 million in total service costs for 2002, $4 million is mapped to the customers that used those services. We were not able to associate level of effort for customer categories with specific ASCs by reference to the ABC data, because this data was not available. The 2003 data supports the identification of burdened labor costs and FTEs for all services. It does not provide unburdened labor costs and provides only limited information by regional ASC.

Step 9: Prepare Summary Analysis

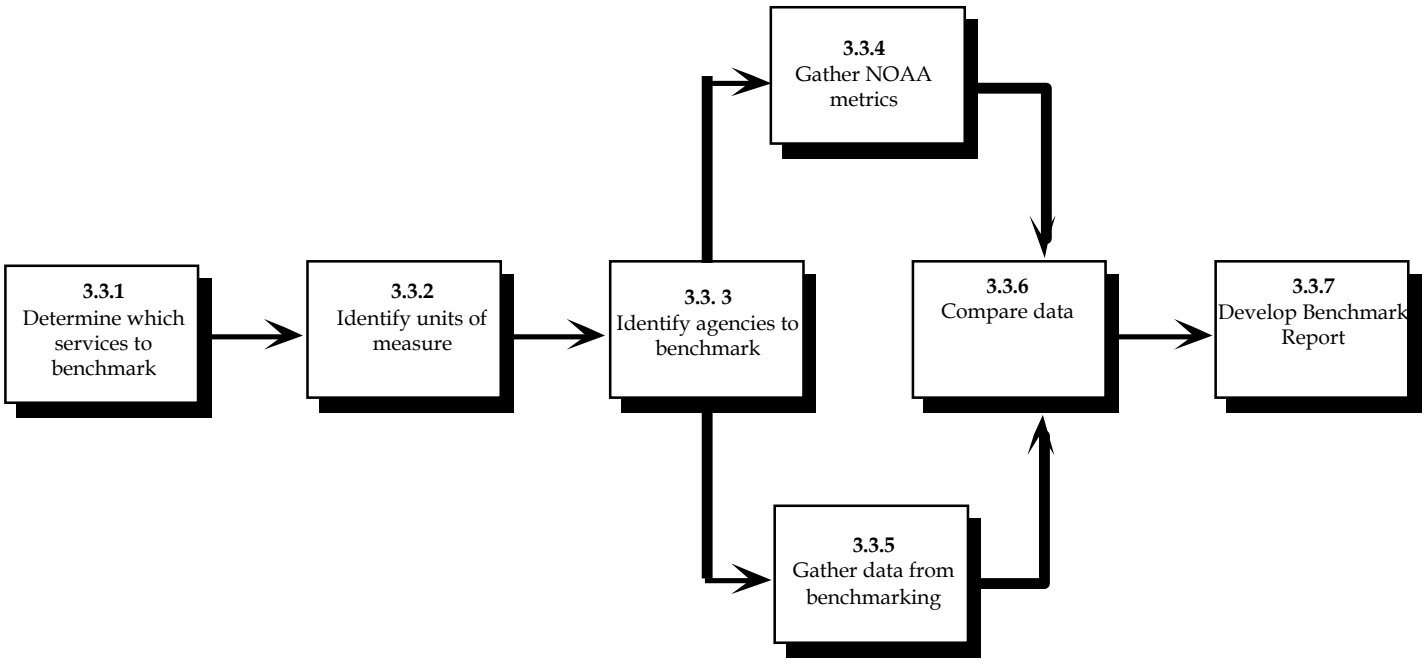
Using our analysis of the validated and refined ABC data, Booz Allen measured the distribution of workload and productivity across finance and administrative services. This data provided a performance baseline to help NOAA understand the level of effort

currently being applied in the eight functional areas and, to some extent, which customers are being served by that effort. It also provided the basis for comparing NOAA productivity with that of external benchmarked organizations.

Benchmarking Analysis

Booz Allen used a seven-step approach, shown in Exhibit 2-9, to collect and analyze benchmark data. This approach included determining which services within each function to benchmark, choosing appropriate units of measurement, and then identifying agencies from which to gather data. Data was collected internally from NOAA Headquarters and the ASCs and externally from the target benchmark partners.

Exhibit 2-9: Benchmark Approach



Determine Which Services to Benchmark

NOAA provides operational and, to some extent, oversight, policy, and planning support in the finance and administrative areas to its line offices, the Department of Commerce, and external customers. It also provides guidance and staff support to the Office of the Under Secretary in the areas of program planning, budget formulation and execution, resource management, financial systems development, and financial management. These functions are defined in Exhibit 2-10.

Exhibit 2-10: NOAA Key Functions and Definitions

Function	Definition
Finance	Finance Services within NOAA are delivered at two levels: operational and Headquarters. Operational functions consist of transaction processing and direct customer support. Headquarters functions focus primarily on policy development and information systems support.
Budget	The budget functional area includes budget formulation guidance and coordination; analysis, distribution, and monitoring of funds; and coordination and liaison with Congressional appropriations staff; and management of the proposed Business Management Fund. NOAA Budget serves as liaison to DOC and OMB, manages implementation of Activity Based Costing, and administers the Table of Organization.
Acquisition	Acquisition Management offices support their customers throughout the full acquisition lifecycle. Services performed include: planning, statement of work preparation, solicitation, negotiation, award, administration, and close out.
Grants	The grants management process can be broken down into four phases: Pre-Award, Award, Post-Award, and Closeout. The activities performed by the program offices are not within the scope of this study.
Workforce Management	The Workforce Management business line is comprised of the Human Resources function, the Office of Diversity, and the Office of Civil Rights, which includes the traditional Workforce Management (WFM) services typical of most Federal Agencies.
Facilities	The Facilities and Logistics business line is responsible for the acquisition, administration, and in certain cases, operation/management of the facilities and real property assets. Additionally, this includes the delivery of numerous logistics services nationwide, including personal property management, printing and publications management, and shipping/handling activities, as well as environmental compliance, safety, and security services.
Information Technology	Information Technology consists of Infrastructure Support, Workstation Support, IT Consulting and Application Development, General and Administrative Support, and the MASC Library.
Environmental Safety	Environmental Safety includes environmental compliance, occupational health and safety. Emergency Management performs routine facility assessments. It includes disaster and emergency response programs and policies in support of federal mandates, goals and objectives related to employees, contractors, and visitors operating in a healthful environment.

NOAA delivers a large and complex set of administrative services. In order to clarify our focus, the Booz Allen team selected the most significant services within each of these complex service areas for further analysis. In determining which services to benchmark, the Booz Allen team looked at this set of selected services and considered which activities within this set would lend themselves to the type of comparison that a benchmarking effort can provide. Services that could be evaluated in terms of FTEs per transaction were key candidates for selection. Services that could be evaluated in terms of cycle time per transaction were also likely candidates.

Identify Units of Measure

Once a draft list of candidate services was developed, Booz Allen evaluated its potential list of metrics. A consideration in identifying units of measure was whether relevant

data could be obtained to support the analysis of these metrics from NOAA and the benchmarking partners. In today's Federal Agencies, the activity of performance measurement and tracking is only beginning to be recognized as an important management tool. In addition, the systems needed to support this activity are not widely available. For this reason, benchmarking efforts are generally constrained by the availability of appropriate data. Recognizing this challenge, the Booz Allen team adopted a pragmatic approach, identifying appropriate metrics, but acknowledging that it would need to accept partial data and possibly expand its list of potential benchmarking partners. Where possible, metrics that are standard across Federal Agencies or which are recognized industry-wide were selected.

Identify Agencies to Benchmark

After variables were selected, Booz Allen identified potential benchmark partners. Contacts were made, discussions on the results of these contacts were held with the NOAA Study Team, and a final list of partner agencies was obtained. This list is provided in Exhibit 2-11. It includes agencies identified by the NOAA Study Team, which also provided assistance in identifying points of contact for some of these agencies. It also includes benchmarking data from Booz Allen's benchmarking archives, which was used to supplement the data gathered from other agencies when benchmarking partners could not provide the required data in the time available for this study. Where data is used from our archives, benchmarking partners are identified by numbers, (e.g., BP1, BP2) rather than by name.

Exhibit 2-11: Benchmark Agencies

Function	Benchmark Partners
Finance	Confidential Benchmarking Partners
Budget	Department of Energy, Confidential Benchmarking Partners
Acquisition	Social Security Administration, Department of Interior-National Business Center, U.S. Coast Guard
Grants Management	National Institutes of Health, National Science Foundation, Department of Homeland Security's Office for Domestic Preparedness
Workforce Management	U.S. Department of Agriculture – Forest Service, U.S. Geological Society, Department of Education
Facilities/Logistics	Internal Revenue Service, Confidential Benchmarking Partner
Information Technology	Industry Reports; Census Bureau, National Science Foundation (best practices)
Environmental Safety	Environmental Protection Agency, Internal Revenue Service, Confidential Benchmarking Partners

Gather NOAA Metrics

Booz Allen assessed the availability and quality of NOAA's internal data for each of the eight functions. For selected transactions, cost metrics were developed from the ABC data to reflect a per-unit cost. In other cases, Full Time Equivalent (FTE) metrics were used to show the burden of labor for a selected activity. In some cases, it was possible to show cycle times. For NOAA, as for most Federal Agencies, few systems are

designed to capture the type of benchmarking data that allows for easy comparison. Where data was available from systems, it was used; where it was not available, we asked NOAA staff to assist us in developing this information based on their experience and other data sources.

Gather Data From Benchmarking

Booz Allen requested data from benchmarking partners with respect to the identified units of measure. In the case of the Information Technology function, data was not available from partners selected by Booz Allen with input from the NOAA Study Team, and we were not able to obtain alternative sources in the time available. Industry benchmarks were used instead to support a comparative analysis of performance.

Compare Data

After data was collected, Booz Allen compared the results for NOAA performance and the performance of benchmarking partners in each of the eight areas. Similarities and differences in performance were compared, and the work environments were evaluated to identify reasons for any differences uncovered.

Develop Benchmarking Report

Interim Deliverable 2: Benchmarking Analysis summarizes all benchmarking data collected. It is designed to identify similarities and differences between the performance of NOAA and other Federal Agencies.

Phase 2: Design

During this project Phase, Booz Allen:

- Reviewed the outcomes of Phase One to identify key issues and areas of opportunity for performance improvement in NOAA administrative services delivery.
- Established, based on these issues and opportunities, a set of evaluative criteria for assessing the relative merits and applicability of alternative concepts of operation for NOAA's administrative services functions. These criteria included:
  - Responsiveness to customer needs;
  - Enhancement of performance accountability;
  - Ability to leverage technology;
  - Promotion of standardization of policy, process, and service performance;
  - Ability to support streamlining and reengineering of service processes; and
  - Ability to reduce the cost of service delivery.

- Defined alternative high-level organizational models for administrative services delivery, using our understanding of both commercial and governmental best practices in organization design. Such alternatives include:
  - Functional structure;
  - Geographic structure;
  - Business unit/market/product structure; and
  - Hybrid structures (incorporating a mix of the above models).
- Evaluated each alternative organizational model against the established design criteria, and force-ranked alternative models based on our assessment of their ability to meet the criteria.
- Used the highest ranked organizational model as a basis for defining a high-level Concept of Operations for NOAA administrative services, including consideration of:
  - Roles and responsibilities of each organizational entity;
  - Loci of performance accountability for each administrative service;
  - Decision-making processes and key points of authority;
  - Management planning and control processes and responsibilities; and
  - Logistical considerations, including the geographic placement of staff resources, need for on-site service delivery, co-located facilities, etc.

A more detailed discussion of the analytical methodologies and logic stream utilized in the design of the proposed Concept of Operations for NOAA administrative services is provided in Chapter 4: Proposed Concept of Operations.

Phase 3: Transition Planning

During this final phase of the project, Booz Allen developed a comprehensive, quantified transition strategy and plan for NOAA to use as a guide to the implementation of the proposed Concept of Operations and supporting detailed recommendations. This phase included:

- Identification of all significant implementation activities, their estimated resource requirements and interdependencies;
- Definition of significant implementation phases, using precedence relationships among activities and key milestones as major determinants of the content and duration of each phase. For example, it is clear that high-level organizational changes, such as those involving new authority and responsibility for functional managers, must precede the reengineering of functional processes, since such reengineering requires strong functional leadership for success;
- Determination of the likely costs and benefits associated with each implementation phase, based on estimated timing of change impacts on

performance and imbedded variable and fixed costs; projection of estimated cash flows based on these estimates; and

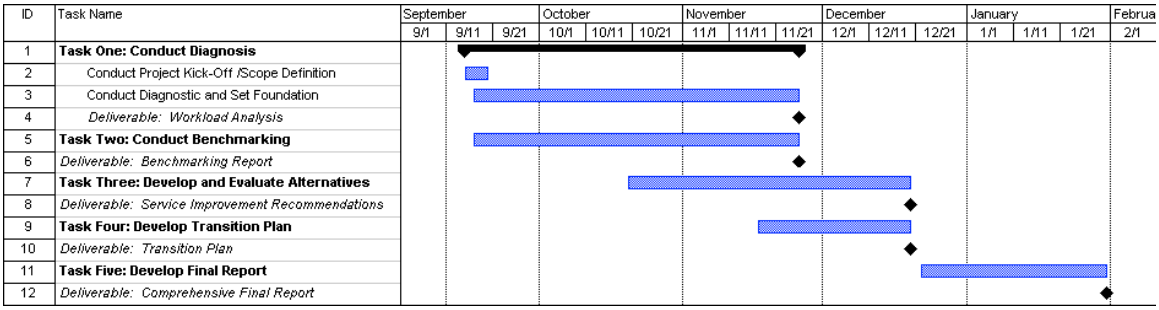
- Identification of probable risks associated with implementation and recommended risk mitigation strategies.

A complete discussion of the proposed implementation plan and associated costs, benefits, and risks is provided in Chapter 13: Transition Plan.

2.3 PROJECT SCHEDULE

This project began in mid-September, 2003, and concluded in January, 2004, with the delivery of this Comprehensive Final Report. Weekly status briefings were conducted with the NOAA Study Team, and Booz Allen delivered monthly written Status Reports to the NOAA project manager. All contractual milestones were achieved on schedule. A summary project schedule, showing major tasks and their duration, is shown below:

Exhibit 2-12: Project Schedule



2.4 KEY PERSONNEL INTERVIEWED

Booz Allen conducted more than 300 interviews of staff at NOAA, Department of Commerce, and the Office of Management and Budget. In addition, over 200 customers were queried via telephone and email interviews with respect to their satisfaction with NOAA administrative services. A list of all interviews is provided in Appendix C.

2.5 NOAA STUDY TEAM

Booz Allen is indebted to the NOAA Study Team for their valuable contributions to this project. The Study Team provided assistance, guidance, coordination, and oversight throughout every phase of the project. The Study Team conducted a comprehensive review of, and provided extensive commentary on, each of Booz Allen's work products, to enhance their accuracy, completeness, practicality to NOAA, and conformance with project objectives. The Study Team's dedicated efforts on behalf of this project have contributed significantly to the quality and utility of this report. The Study Team included:

- Bill Broglie

- Martha Cuppy
- Ted David
- Sam DeBow
- Helen Hurcombe
- Alan Neuschatz, Chair
- John O'Conor
- Barbara Retzlaff
- Zane Schauer

2.6 STRUCTURE OF THIS REPORT

The report is structured as a comprehensive, self-contained document. It is organized in thirteen chapters, as follows:

1. Executive Summary
2. Introduction
3. Profile of NOAA Administrative Services
4. Proposed Concept of Operations
5. Finance Services
6. Budget Services
7. Acquisition Services
8. Grants Management Services
9. Workforce Management Services
10. Facilities and Logistics Services
11. Information Technology Services
12. Environmental Compliance and Health & Safety Services
13. Transition Plan
14. Conclusion

Chapters 1-4 and 13 discuss NOAA-wide issues and concepts. Chapters 5 through 12 devote attention to each administrative function under review, providing an overview of that function's mission, scope, structure, key processes, performance metrics, opportunities for improvement, and recommendations.

For additional backup information on individual functional areas, workload analysis, benchmarking, recommendations or transition plan, the reader is also referred to the project's four final deliverables identified earlier in this chapter.

3. PROFILE OF NOAA ADMINISTRATIVE SERVICES

This chapter summarizes NOAA's mission and current organization structure, the history, evolution and current structure of administrative services, current staffing levels and costs, funding sources, workload indicators and trends, key findings from prior studies of administrative services, and overarching organization and management issues influencing the performance of NOAA's administrative services functions.

3.1 NOAA MISSION AND ORGANIZATION STRUCTURE

The National Oceanic and Atmospheric Administration is a bureau of the U. S. Department of Commerce. NOAA's mission is to understand and predict changes in the earth's environment and to conserve and manage coastal and marine resources to meet our nation's economic, social, and environmental needs.

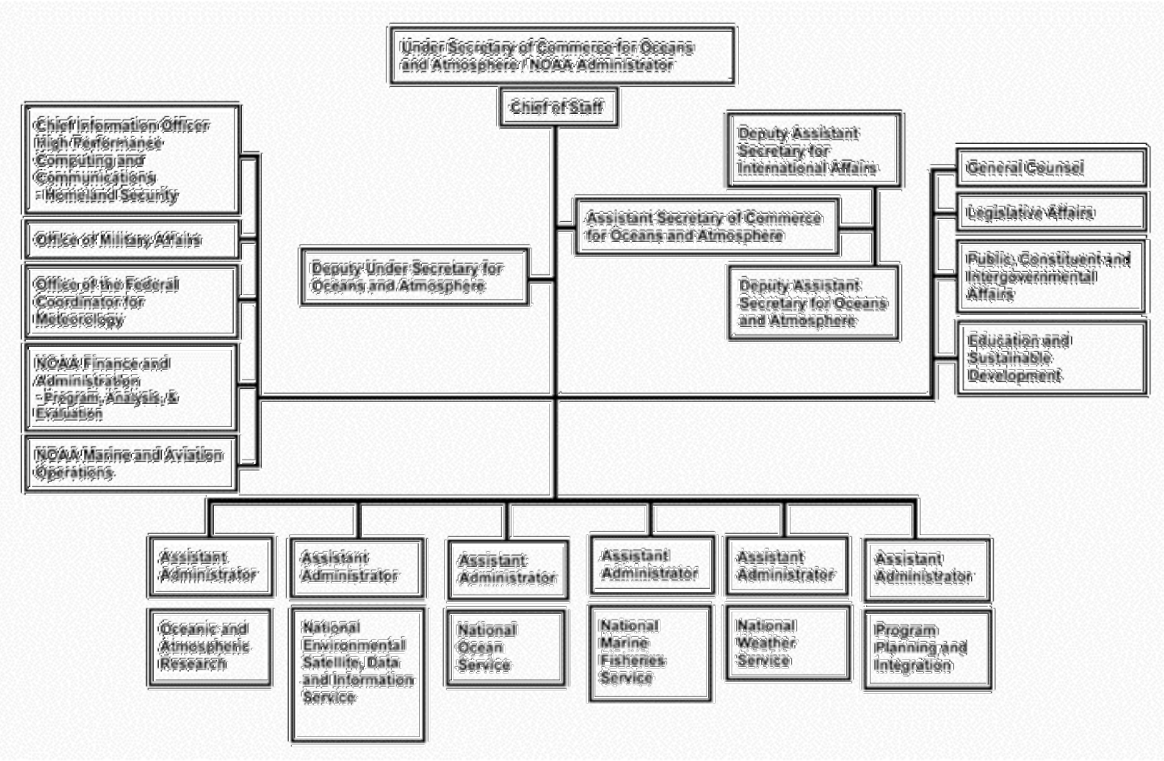
NOAA employs approximately 12,600 people located in approximately 700 buildings around the country. NOAA's annual operating budget is $3.7B (FY 03), and represents over 65% of the Department of Commerce's annual operating budget.

Exhibit 3-1 depicts the organizational structure of NOAA, including the Bureau's six "line offices:"

- National Weather Service (NWS)
- National Ocean Service (NOS)
- National Marine Fisheries Service (NMFS)
- National Environmental Satellite, Data, and Information Service (NESDIS)
- Office of Oceanic and Atmospheric Research (OAR)
- Office of Program Planning and Integration (PPI)

These organizations and the Office of Marine and Aviation Operations (OMAO) are the primary internal customers served by NOAA finance and administration functions.

Exhibit 3-1: NOAA Organizational Chart[2]

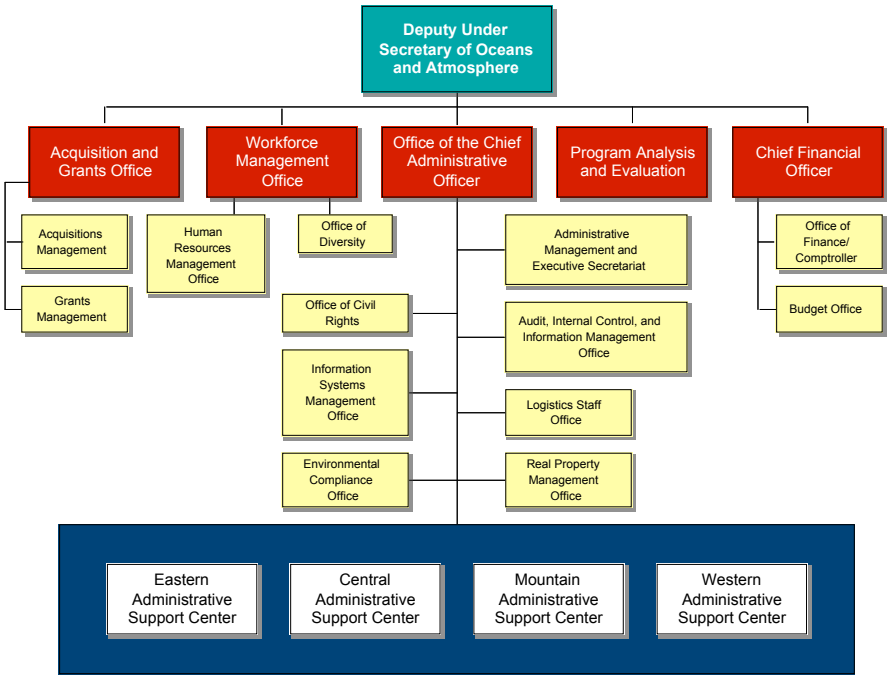


The focus of this study is the organization responsible for providing financial and administrative support within NOAA. This organization is currently comprised of 1,136 employees (Government and Contractor). These staff are located in the Washington, DC area and at four Administrative Support Centers (ASCs) located in Norfolk, Virginia, Kansas City, Missouri, Boulder, Colorado, and Seattle, Washington. In the Washington, DC area, the ASC-like services are provided by several NOAA Headquarters organizations, which are sometimes collectively referred to as the "fifth ASC."

NOAA's finance and administrative services are currently organized in functional Headquarters units and regional support centers as shown in Exhibit 3-2. Although these services are operating under this structure, the structure has not yet been officially approved.

[2] Chart depicted on the NOAA website as of 2-12-2004.

Exhibit 3-2: NOAA Finance and Administrative Services Structure



As shown in the chart above, regional ASC Directors report to the Chief Administrative Officer, and directly supervise the functional staff located in their Center. Support Centers, in turn, provide administrative services to NOAA line offices and, in some instances, to other DOC agencies. There is no consistent line of authority and responsibility between administrative functional managers at NOAA Headquarters and their functional counterparts in regional administrative support centers. The nature of these relationships vary by function and by ASC.

It should be noted that the NOAA organization includes other administrative functions beyond the scope of this study. These functions include:

- Office of the Chief Information Officer (CIO)
- Legislative Affairs
- General Counsel
- Public Affairs

3.2 History, Evolution and Current Structure of Administrative Services

In order to fully understand the current state of the organization, we studied the history of the finance and administrative services organization, and NOAA as a whole, by looking at several factors, one of which was a historical account of events and findings that shaped the organization. A brief timeline of the evolution NOAA's finance and administrative services organization and the issues, mandates, and factors that have influenced it during the past forty years follows:

Year	Event
1969	Stratton Commission report to Congress recommends creation of a new Federal agency
1970	NOAA created within the Department of Commerce, combining the Bureau of Commercial Fisheries, U.S. Weather Bureau, Coast and Geodetic Survey, Environmental Data Services, National Satellite Center, Research Libraries, among others
1983	Five administrative support centers (ASCs) created to serve all DOC bureaus and agencies, with NOAA serving as the ASCs "host" agency
1987+	Multiple studies conducted of ASCs and NFA operations, resulting in the implementation of 10 of 47 recommendations in ten years
1992+	"Reinventing Government" initiatives force FTE cuts, leading to decline in policy functions, reduced oversight, and staff departures. From FY1992 to FY1996, ASC budgetary resources decrease by 12%
1996	Census Bureau drops out of ASCs
1997	DOC Inspector General issues report on ASCs citing need for functional realignment and focus on essential services
1998	Internal report issued on "Changes Need to Transform Administrative Support Centers into the Best Federal Administrative Services Providers"
2000	NAPA conducts study of NOAA budget and financial management processes
2001	NOAA's 2001-2006 Strategic Plan cites the need for improvement of corporate administrative functions: • "We will improve the efficiency, accountability, and customer satisfaction of our administrative programs and services, including financial performance, human resources, information technology and electronic government, grants management, competitive sourcing, and budget and performance integration and assessing customer satisfaction." • "We will improve our policy, programmatic, and managerial foundations…and build a corporate NOAA that facilitates the effective, timely delivery of our products and services." • "We will expand workforce training, incentives, succession planning, and other administrative tools to recruit and retain a skilled workforce." • We will invest in facility modernization, repair, and maintenance…" • In our new corporate NOAA, strategic planning will be a coordinated, ongoing process…we will use periodic reviews and surveys, monitoring of performance measures, and the free flow of ideas to revise and update our strategic plan."
2001+	NOAA initiates Activity-based Cost (ABC) initiative, to provide basis for an NFA fee-for-service charge-back system to customer agencies
2002	CAMS system is implemented, standardizing financial accounting and reporting for all DOC agencies
2003	Inspector General's Office reports NOAA corporate costs process needs improvement
2003	Undersecretary Lautenbacher's FY06 planning guidance cites imperatives relevant to administrative services to improve administrative service performance: • "To ensure efficiency and accountability, NOAA should adopt best practices across the full range of our administrative functions." • Focus on integration, asset redeployment, and strategic alliances: "Given the current budget climate, we should focus more sharply on integrating our efforts to achieve efficiencies, on redirecting current assets and on building strategic alliances to leverage external resources." • Maximize ROI: "Among alternatives, we should emphasize those which provide the greatest or most certain return on investment."
2003	NOAA restructures NFA to eliminate Chief Financial Officer/Chief Administrative Officer position
2003	Congress proposes to mandate end to "taxation" of NOAA line offices to fund NFA
2003	NOAA requests Booz Allen Hamilton to assess NFA operations and structure

A 2003 realignment of NOAA administrative services abolished the Office of the Chief Financial Officer/Chief Administrative Officer, and created five offices reporting to the Deputy Under Secretary: the Office of Chief Financial Officer, Office of Chief

Administrative Officer, Workforce Management Office, Acquisition and Grants Office, and Office of Program Analysis and Evaluation. The structure of these offices and the purview of their responsibilities following realignment is as follows:

1. Office of the Chief Financial Officer
Responsible for oversight and management of NOAA's budget and financial processes. Finance Services within NOAA are delivered at two levels: operational and Headquarters. Operational functions consist of transaction processing and direct customer support. Headquarters functions focus primarily on policy development and information systems support. The budget functional area includes budget formulation guidance and coordination; analysis, distribution, and monitoring of funds; and coordination and liaison with Congressional appropriations staff; and management of the proposed Business Management Fund. NOAA Budget serves as liaison to DOC and OMB, manages implementation of Activity Based Costing, and administers the Table of Organization.
Budget Office Finance Office

2. Office of the Chief Administrative Officer
Provides comprehensive, NOAA-wide technical and programmatic guidance in the areas of facilities, real property management, information systems management, information management and internal control, environmental compliance, health, safety, security, and other administrative support services; provides staff support to NOAA Headquarters and other Department of Commerce field offices, including the four regional Administrative Support Centers; provides policy, management and operational direction for the Administrative Support Centers, coordinating and evaluating their activities; administers NOAA-wide Civil Rights and EEO programs.
Administrative Management and Executive Secretariat Civil Rights Office Audit, Internal Control and Information Management Office Information Systems Management Office Real Property Management Office Logistics Staff Office Environmental Compliance/Health/Safety/Security Office
Four Administrative Support Centers *Administrative support services common to all ASCs include: administrative payments, payroll and personnel systems, facility engineering, environmental compliance, real property and space management, personal property management including warehousing, procurement, publications, human resources management services, health and safety, security, recycling, mail management and vehicle fleet management*
Eastern Administrative Support Center – EASC (Norfolk, VA) *Provides administrative support services in the areas of workforce management, acquisitions, finance, facilities, and logistics, to the predominant field components within its service area of: National Oceanic and Atmospheric Administration, International Trade Administration, Minority Business Development Agency, Bureau of Industry and Security, and Economic Development Administration.*
Central Administrative Support Center – CASC (Kansas City, MO) *Provides administrative support services in the areas of workforce management, acquisitions, finance, facilities and logistics, to the predominant field components within its service area of: NOAA, Economic Development Administration, Census Bureau, the Minority Business Development Agency, International Trade Administration, and the Office of the Inspector General.*
Mountain Administrative Support Center – MASC (Boulder, CO) *Provides administrative support services in the areas of workforce management, acquisitions, finance, facilities and logistics, to the predominant field components within its service area of: NOAA, NIST, NTIA, ITA, MBDA, BIS, and EDA. Also responsible for hazmat management, shipping/receiving, award and administration of cooperative agreements with joint institutes, and scientific and technical library services.*
Western Administrative Support Center – WASC (Seattle, WA) *Provides administrative support services in the areas of workforce management, acquisitions, finance, facilities, and logistics to the predominant field components within its service area of: NOAA, ITA, MBDA, Census Bureau, OIG, BEA, and EDA.*

3. Workforce Management Office
Provides human resources operational and policy support, payroll management, and organization management for NOAA line, staff, and program offices in the Washington, DC metropolitan area; manages SES HR activities NOAA-wide.
Programs and Plans Division Management and Employee Services Division Demonstration Project Office Consulting Services Division Diversity Program Division

4. Acquisition and Grants Office
Provides NOAA-wide policy guidance and program support to NOAA components nationwide in acquisition and financial assistance award and administration; plans, designs, and coordinates acquisition and financial assistance standards, practices and procedures for NOAA; provides support in A-76/FAIR Act cost comparisons; provides NOAA-wide oversight on purchase card transactions; awards and administers all NOAA Federal assistance transactions; provides acquisition support to DOC operating units.
Grants Management Division NWS Acquisition Management Division NESDIS Acquisition Management Division NOS/NMFS/OAR Acquisition Management Division External Customers Acquisition Management Division

5. Office of Program Analysis and Evaluation
Provides evaluations and assessments of specific initiatives and program plans for consistency with, and support of, DOC and NOAA mission, objectives, and policies; manages and coordinates programming phase of the Planning, Programming and Budgeting System process linking NOAA's strategic plan and budget.

3.3 SUMMARY STAFFING AND COSTS

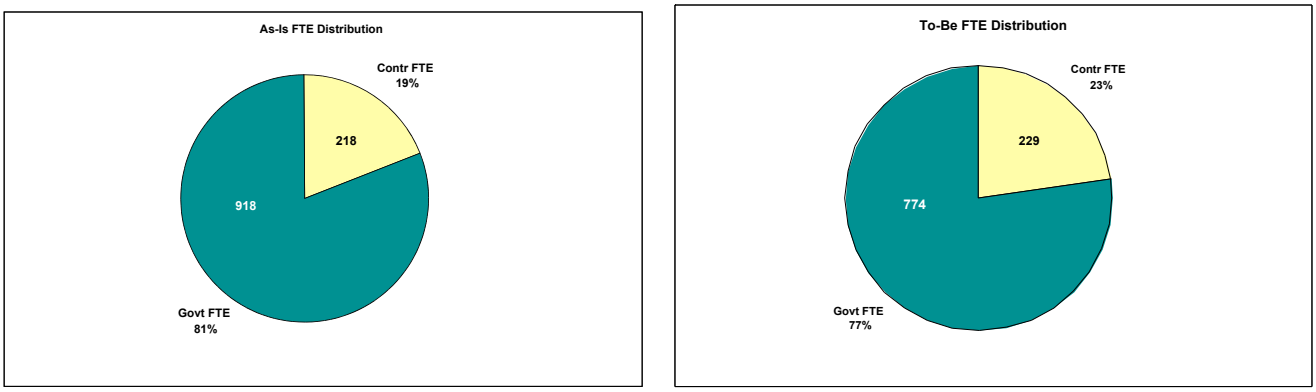
The data in Exhibit 3-3 provides an overview of the total current FTEs that support the finance and administrative functions as derived from the ABC data and modified by our data validation methodology. The total number of government FTEs is shown below in Exhibit 3-3.

Exhibit 3-3: Total Workload Evaluated (As-Is)

Functional Area	EASC	CASC	MASC	WASC	WASH DC	HQ	Total FTEs	Total %
Acquisition								
Government FTE	11.0	21.0	13.0	21.0	52.0	11.0	129.0	12%
Contractor FTE	0	0	0	0	1.1	0	2.0	
Grants								
Government FTE	0	0	1.0	0	20.0	0	21.0	2%
Contractor FTE	0	0	0	0	0	0	0.3	
Finance								
Government FTE	20.5	20.8	13.0	24.4	62.0	105.0	245.7	23%
Contractor FTE	0	1.0	0	0	0	16.0	17.0	
Budget								
Government FTE	0	0	0	0	0	45.0	45.0	4%
Contractor FTE	0	0	0	0	0	3.5	3.5	
Workforce Management								
Government FTE	20.4	20.0	28.5	31.4	33.2	33.9	167.4	18%
Contractor FTE	3.2	0	0	0	0.7	27.9	32.5	
Information Technology								
Government FTE	5.0	8.0	18.0	8.0	36.0	11.0	86.0	11%
Contractor FTE	0	0	0	0	34.0	10	44.0	
Facilities								
Government FTE	10.0	41.0	28.0	25.9	27.2	20.7	152.8	24%
Contractor FTE	0	6.5	7.5	45.5	59.0	0	118.5	
Environmental / Logistics								
Government FTE	1.0	2.0	2.0	2.0	1.0	6.0	14.0	1%
Contractor FTE	0	0	0	0	0	0	0	
Global / Other								
Government FTE	4.0	6.0	8.0	4.0	0	35.0	57.0	5%
Contractor FTE	0	0	0	0	0	0	0	
TOTAL Government FTE	**71.9**	**118.8**	**111.5**	**116.7**	**231.4**	**267.6**	**917.9**	**81%**
TOTAL Contractor FTE	**3.4**	**7.6**	**8.1**	**46.2**	**95.0**	**57.4**	**217.8**	**19%**
TOTAL ALL FTE	**75.4**	**126.4**	**119.6**	**162.9**	**326.3**	**325.0**	**1135.6**	**100%**

As the exhibit demonstrates, the functions that consume the greatest number of FTEs are Finance and Facilities/Logistics. However, the amount of labor currently provided by contractors is substantially higher for Facilities/Logistics (44% of total contractor FTEs for the function) than it is for Finance (6% of total contractor FTEs for the function). Grants Management and Environmental Compliance each consumes only 1 to 2 % of total FTEs across the functional scope examined. However, this does not necessary reflect the relative importance of these functions. The Grants Management function, in particular, contributes significantly to the organization's achievement of its mission. Additional information related to the performance of each function is provided in this study. This information identifies services provided within the scope of each function and identifies units of measure that can be used to assess the productivity with which they are performed. Overall, the distribution of current staff consists of 81% government FTEs and 19% contractor FTEs. The distribution for the proposed To-Be model consists of 77% government FTEs and 23% contractor FTEs.

Exhibit 3-4: As-Is and To-Be Staffing Distribution



This may be compared with the NOAA CAMS data provided to Booz Allen, which shows 928 FTEs for finance and administrative for FY 2003. The difference between the two numbers is within 1% and provides an external check on the workload numbers presented here. For these reasons, we believe that our presentation of workload data in this study represents a fair look at the effort expended in support of NOAA's finance and administrative functions.

Labor expended by both government staff and contractors is included in this summary. Data for the four ASCs appears in the columns labeled EASC, CASC, MASC, and WASC. FTEs expended on operational activities in the Washington DC metropolitan area (sometimes identified as the "fifth" ASC) are presented in the column labeled "WASH DC." Labor expended in support of policy and oversight activities is presented in the column labeled "HQ." Exhibit 3-3 also indicates the relative percentage of effort that is expended on each of the eight functions within the scope of this study. As the exhibit indicates, Finance and Facilities/Logistics are the two functional areas that consume that greatest amount of resources, while Grants Management and Environmental Compliance consume the least.

In evaluating this data, several factors should be taken into account:

- The numbers provided in exhibits throughout this document are not exactly the same as those found in the 2002 or the 2003 ABC data. We have used that data to inform our analysis, but the numbers provided below represent, we believe, a more accurate picture of labor expended based on our interviews, document review, and data analysis.
- In determining how to count certain FTEs, we have had to make decisions on the assignment of labor. The Acquisition function for CASC, for example, includes five FTEs that support the Bank Card Center.

- The customer base served by the staff time represented in these FTEs includes both NOAA and non-NOAA customers.
- The scope of the current effort does not include labor expended by staff members in the line offices in support of finance and administrative functions.
- The numbers provided here are derived from the ABC data, which was validated and modified to increase accuracy. While it roughly parallels the number of authorized staff positions for the finance and administrative functions within 2%, it is not exactly the same as this number.

This information provides a framework for assessing the current workload at NOAA's ASC and Headquarters offices and will provide the basis for a consideration of the applicability of alternative service delivery models.

In addition, we identified the relative level of effort applied to the performance of operational tasks and oversight/policy tasks for each functional area. As with all data in this study, these numbers do not track precisely to either the 2002 or 2003 ABC data. The numbers presented here represent our best understanding of actual effort expended, taking into account many sources of information, including the ABC data. In addition, it is premature to fully determine this ratio under the new Concept of Operations without further detailed analysis. However, we are confident that there are sufficient FTEs allocated in the To-Be environment to achieve the goals of the new model. Operational tasks are defined as those function-specific tasks that contribute to producing a particular product or service offered by that function. Oversight/policy tasks are those that relate to policy making or standard setting for the entire functional area. Exhibit 3-5 identifies an approximate split for each of these two task categories by function for the ASCs and Headquarters. The As-Is FTE numbers are a rough estimate of the number of staff primarily performing these types of tasks.

Exhibit 3-5: Summary of As-Is Policy/Oversight vs. Operations FTE

	EASC	CASC	MASC	WASC	WASH DC	HQ	TOTAL FTEs	TOTAL PERCENTAGE
FINANCE	20.5	21.8	13.0	24.4	62.0	121.0	**262.7**	**100.0%**
OPERATIONS	20.5	21.8	13.0	24.4	62.0	110.0	**251.7**	**95.8%**
POLICY / OVERSIGHT	0.0	0.0	0.0	0.0	0.0	11.0	**11.0**	**4.2%**
BUDGET	0.0	0.0	0.0	0.0	0.0	48.5	**48.5**	**100.0%**
OPERATIONS	0.0	0.0	0.0	0.0	0.0	14.5	**14.5**	**29.9%**
POLICY / OVERSIGHT	0.0	0.0	0.0	0.0	0.0	34.0	**34.0**	**70.1%**
ACQUISITION	11.2	21.2	13.4	21.2	53.0	11.0	**131.0**	**100.0%**
OPERATIONS	11.2	21.2	13.4	21.2	53.0	2.0	**122.0**	**93.1%**
POLICY / OVERSIGHT	0.0	0.0	0.0	0.0	0.0	9.0	**9.0**	**6.9%**
GRANTS MANAGEMENT	0.0	0.0	1.1	0.0	20.2	0.0	**21.3**	**100.0%**
OPERATIONS	0.0	0.0	1.1	0.0	19.6	0.0	**20.7**	**97.2%**
POLICY / OVERSIGHT	0.0	0.0	0.0	0.0	0.6	0.0	**0.6**	**2.8%**
WORKFORCE MANAGEMENT	23.7	20.1	28.6	31.5	34.0	61.9	**199.8**	**100.0%**
OPERATIONS	23.2	20.1	28.6	27.5	34.0	28.4	**161.8**	**81.0%**
POLICY / OVERSIGHT	0.5	0.0	0.0	4.0	0.0	33.5	**38.0**	**19.0%**
FACILITIES AND LOGISTICS	10.0	47.5	35.5	71.4	86.2	20.7	**271.3**	**100.0%**
OPERATIONS	9.0	46.5	34.5	70.4	85.4	0.0	**245.8**	**90.6%**
POLICY / OVERSIGHT	1.0	1.0	1.0	1.0	0.8	20.7	**25.5**	**9.4%**
INFORMATION TECHNOLOGY	5.0	8.0	18.0	8.0	70.0	21.0	**130.0**	**100.0%**
OPERATIONS	3.8	5.4	14.4	5.6	61.4	10.0	**100.6**	**77.4%**
POLICY / OVERSIGHT	1.2	2.6	3.6	2.4	8.6	11.0	**29.4**	**22.6%**
ENVIRONMENTAL COMPLIANCE	1.0	2.0	2.0	2.0	1.0	6.0	**14.0**	**100.0%**
OPERATIONS	1.0	2.0	2.0	2.0	0.0	6.0	**13.0**	**92.9%**
POLICY / OVERSIGHT	0.0	0.0	0.0	0.0	1.0	0.0	**1.0**	**7.1%**
GLOBAL/OTHER	4.0	6.0	8.0	4.0	0.0	35.0	**57.0**	**100.0%**
OPERATIONS	4.0	6.0	8.0	4.0	0.0	22.0	**44.0**	**77.2%**
POLICY / OVERSIGHT	0.0	0.0	0.0	0.0	0.0	13.0	**13.0**	**22.8%**
TOTAL OPERATIONS FTEs	**72.7**	**123.0**	**115.0**	**155.1**	**315.4**	**192.9**	**974.1**	**85.8%**
TOTAL POLICY/OVERSIGHT FTEs	**2.7**	**3.6**	**4.6**	**7.4**	**11.0**	**132.2**	**161.5**	**14.2%**
TOTAL FTEs	**75.4**	**126.6**	**119.6**	**162.5**	**326.4**	**325.1**	**1135.6**	**100.0%**

As the Exhibit demonstrates, differences exist on a function-by-function basis. It is not surprising that the Budget function shows the greatest relative level of effort assigned to the policy/oversight category. The Grants Management and Finance functions show the lowest relative level of effort devoted to the policy/oversight category. While the overall Grants Management level of effort is relatively small, the low level of effort devoted to policy/ oversight is noteworthy because the trend for transactions is up in this area.

The costs and benefits associated with moving to the new Concept of Operations are identified below. As indicated in Exhibits 3-6 and 3-7 below, current annual operating costs for all identified FTEs are $177,062,000. Annual operating costs for all identified FTEs in the proposed new model are $154,057,000. The actual finance and administrative services cost savings is $19,129,000 by implementing the To-Be Model before transfers. This represents a 10.8% reduction from the As-Is operating budget. The net cost differential in annual operating costs between the two models is $23,005,000 after transfers. This represents a change of 13.0% on an annual basis after transfers. Transfers consist of functions and staff shifting to NOAA line offices.

Exhibit 3-6: Total Annual Operating Costs for As-Is

Summary	EASC		CASC		MASC		WASC		Wash DC		Headquarters		Total	
As-Is	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost
Government Labor	71.9	$ 7,490	118.8	$ 11,748	111.5	$ 11,262	116.7	$ 12,085	231.4	$ 23,029	267.6	$ 27,691	917.9	$ 93,306
Contractor Labor	3.4	$ 381	7.6	$ 921	8.1	$ 948	46.2	$ 5,043	95.0	$ 8,742	57.4	$ 7,231	217.8	$ 23,265
Variable Overhead		$ 631		$ 805		$ 1,394		$ 371		$ 3,620		$ 4,068		$ 10,889
Fixed Overhead		$ 161		$ 217		$ 226		$ 3,453		$ 161		$ 45,384		$ 49,602
Total	75.4	$ 8,663	126.42	$ 13,691	119.6	$ 13,829	162.9	$ 20,952	326.3	$ 35,552	325.0	$ 84,375	1135.6	$ 177,062

Note: Dollars are in thousands ($000s)

Exhibit 3-7 summarizes the projected impact on staffing, resulting in a total reduction of 144.2 (15.7%) government FTEs. The "Summary As-Is Total FTE" column indicates the current staffing levels within the existing organizational model. The numbers for current staffing are based the available ABC data, which we refined by using information gathered through interviews and finance and administrative services documentation.

Exhibit 3-7: Total Annual Operating Costs for To-Be

Summary	Western Operations		Eastern Operations		Headquarters		Total		Net Cost Differential	Percent
To-Be	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	After Transfers *	Change
Government Labor	196.5	$ 20,114	284.3	$ 28,643	292.9	$ 30,654	773.7	$ 79,411	$ 13,895	-14.9%
Contractor Labor	67.1	$ 6,858	91.9	$ 8,632	69.9	$ 8,643	229.0	$ 24,133	$ (868)	3.7%
Variable Overhead		$ 450		$ 431		$ 3,822		$ 4,704	$ 6,185	-56.8%
Fixed Overhead		$ 265		$ 161		$ 45,384		$ 45,810	$ 3,792	-7.6%
Total	263.7	$ 27,687	376.2	$ 37,867	362.8	$ 88,503	1002.6	$ 154,057	$ 23,005	-13.0%

Summary *To-Be*	Gross Cost Differential Before Transfers*	Transfers to NOAA	Net Cost Differential After Transfers*
Government Labor	$ 10,769	$ 3,125	$ 13,895
Contractor Labor	$ (1,286)	$ 419	$ (868)
Variable Overhead	$ 5,854	$ 331	$ 6,185
Fixed Overhead	$ 3,792	-	$ 3,792
Total	$ 19,129	$ 3,875	$ 23,005

Notes: Dollars are in thousands ($000s)
**Gross cost differential before transfers: $19M is the actual finance and administrative services cost savings by implementing the To-Be model*
**Net cost differential after transfers: $23M is the total reduction in Operating Budget for finance and administrative services by implementing the To-Be Model*
Transfers occur within Facilities/Logistics and Information Technology
Calculations assume current workload and exclude effort for transition costs

In addition, the summary of costs and benefits includes a detailed break-out of the As-Is and To-Be operating costs by function in Exhibits 3-8 and 3-9 respectively. Exhibit 3-8 shows the As-Is operating costs by function.

Exhibit 3-8: As-Is Operating Costs by Function

As-Is Operating Costs	EASC	CASC	MASC	WASC	Wash DC	HQ	Total
Acquisition	$ 1,270	$ 2,425	$ 1,522	$ 2,422	$ 6,006	$ 1,982	$ 15,628
Grants	$ -	$ -	$ 104	$ -	$ 1,920	$ 150	$ 2,174
Finance	$ 2,073	$ 2,241	$ 1,385	$ 2,437	$ 5,942	$ 11,766	$ 25,844
Budget	$ -	$ -	$ -	$ -	$ -	$ 6,717	$ 6,717
Workforce Management	$ 2,529	$ 2,142	$ 3,055	$ 3,450	$ 3,585	$ 7,995	$ 22,755
Information Technology	$ 473	$ 784	$ 2,028	$ 757	$ 7,652	$ 14,252	$ 25,946
Facilities	$ 1,177	$ 4,600	$ 3,791	$ 7,789	$ 7,058	$ 7,334	$ 31,749
Environmental / Logistics	$ 112	$ 224	$ 224	$ 224	$ 112	$ 673	$ 1,570
Global	$ 1,028	$ 1,275	$ 1,721	$ 3,872	$ 3,277	$ 12,445	$ 23,618
Other	$ -	$ -	$ -	$ -	$ -	$ 21,061	$ 21,061
Total	$ 8,663	$ 13,691	$ 13,829	$ 20,952	$ 35,552	$ 84,375	$ 177,062

Note: Dollars are in thousands ($000s)

The To-Be operating costs for the finance and administrative services are detailed below in Exhibit 3-9.

Exhibit 3-9: To-Be Operating Costs by Function

To-Be Operating Costs	Western Operations	Eastern Operations	Headquarters	Total
Acquisition	$ 3,887	$ 6,717	$ 2,779	$ 13,383
Grants	$ -	$ 2,001	$ 150	$ 2,151
Finance	$ 4,288	$ 6,724	$ 11,766	$ 22,778
Budget	$ -	$ -	$ 6,501	$ 6,501
Workforce Management	$ 8,175	$ 6,314	$ 9,996	$ 24,485
Information Technology	$ 1,547	$ 7,652	$ 14,252	$ 23,451
Facilities	$ 9,341	$ 8,011	$ 9,585	$ 26,937
Environmental / Logistics	$ 449	$ 449	$ 673	$ 1,570
Global	$ -	$ -	$ 10,798	$ 10,798
Other	$ -	$ -	$ 22,002	$ 22,002
Total	$ 27,687	$ 37,867	$ 88,503	$ 154,057

Note: Dollars are in thousands ($000s)

3.4 KEY FINDINGS FROM PRIOR STUDIES OF ADMINISTRATIVE SERVICES

NOAA has undergone multiple studies and received numerous recommendations for improving service delivery in the past fifteen years. We conducted a thorough review of documentation from previous studies in order to glean a clearer understanding of past efforts to further clarify the historical context of the finance and services organization. In general, prior studies cite deficiencies in administrative service performance, funding levels, accountability for performance, and management systems and controls.

Key findings, conclusions and recommendations from selected previous studies of NOAA administrative services functions are summarized below:

Date: August 1997	**Author**: Office of the Inspector General (OIG) Inspection Report

The focus of this study examines the management oversight and leadership provided by NOAA and the Department, as well as the efficiency and effectiveness of the ASCs' current operations in supporting the Department's field units and their future viability.

This report observes that departmental leadership and NOAA management voids have complicated ASC operations. It also notes an emergence of "shadow" staffs within regional offices, and observes that oversight and accountability has not been given proper attention. The OIG recommends that NOAA develop a funding or budget process that provides sufficient resources, set service level agreements, and develop an updated billing methodology. The report cites that the implementation of CAMS is a high priority.
While ASCs receive high marks from their clients, some are dissatisfied and have determined a case to discontinue services. Top administrative officials for ITA and Census claim that the costs charged by NOAA are too high and that better services could be provided in-house for less money. The Department, in fact, allowed Census to sever its ties with the ASCs as of October 1, 1996. The OIG recommends in this report that NOAA should initiate a study to examine the costs and benefits of allowing the Census Bureau and ITA to withdraw from the ASC network.

NOAA's investment in ASCs has been declining and NOAA has failed to fully meet its responsibility to oversee and evaluate ASC operations, lacking in performance measures and coordination with NOAA HQ. ASC funding and billing issues warrant management attention. The OIG recommends that NOAA determine its administrative staffing and resource needs based on an assessment of anticipated staffing impacts post CAMS implementation.

Title: Report on Changes Needed to Transform Administrative Support Centers into the Best Federal Administrative Services Providers
Date: July 23, 1998 — **Author:** Prepared by Administrative Support Center Directors for W. Scott Gould, Assistant Secretary for Administration, US Department of Commerce

In this report, ASC Directors respond to a request from Mr. Scott Gould to review the ASC organization and to identify current ASC resources, costs, workload, and performance measures.

The ASC Directors recommend that NOAA create a working capital fund to appropriately fund the nature of ASC business, which would require no additional funding. They also agreed that it was important to develop performance-based service agreements with ASC customers and a Customer Advisory Board to increase customer involvement. These initiatives would also require no additional funding. They further recommend that ASCs should be reorganized under an OFA Director of Field Operations to ensure alignment of the management structure with organizational goals, which is cited at an estimate cost of $200,000. The ASC Directors also saw a need to accelerate automation of internal business processes and have an IT infrastructure that supports all ASC customers. Costs for this recommendation were not given, as estimates would be developed in concert with stakeholders. The final recommendation was to increase ASC human resource staffing to achieve a 1:85 servicing ratio and provide FTE to transition to CFS, at an estimated cost of $1,600,000.

Title: NOAA's "Corporate-Costs" Process Needs Improvement
Date: March 2003 — **Author:** Office of the Inspector General (OIG) Audit Report

The OIG conducted a performance audit of the process and practices NOAA used to develop its corporate-costs budgets for FY 2000 and FY 2001 and focused on NOAA's management and funding of costs for centrally controlled administrative services.

"Corporate-costs" refers to the costs associated with NOAA's (1) central executive management and policy direction, and (2) centrally controlled administrative services provided by the Office of Finance and Administration (OFA), such as personnel and contracting services that are used by NOAA's line offices. This report recommends that NOAA improve the methods by which corporate costs are funded by the line offices. NOAA's "direct billing" algorithms are not always equitable and reasonable. The administration should improve the planning process for developing the annual corporate-costs budget. NOAA should include in the audit action plan specific steps to address corporate-costs-related problems identified by this report and addressed in the March 2000 NAPA Report.

Title: CAMS Implementation Transition Plan for the OFA Finance Office and Information Systems Management Office
Date: November 4, 2002 **Author:** BearingPoint
The focus of this study assesses the impacts on staffing due to the implementation of the new financial system, CAMS. Recommendations are presented in a "To Be" model (01/2004) based on an "As Is" analysis (09/2002) and a review of peer organizations after similar COTS implementations. The "To Be" model presents staffing levels as reduced from 215.6 to 161.7 from Office of Finance and Administration offices. Bearing Point also anticipates changes in the levels of effort in their new model, post-CAMS implementation. Specific staffing recommendations are made for the Director's Office, supporting administrative group staff, and each branch of the Finance Office, including the Accounting Operations Division (AOD), the CAMS Program Division, the Financial Reporting Division (FRD), and the Financial Systems and Policy Division (FSPD).

Title: Improving the NOAA Budget and Financial Management Processes
Date: March 2000 **Author:** National Academy of Public Administration (NAPA)
In the course of reviewing the NOAA operations, the Academy panel makes a number of detailed recommendations in this report that address problems covering the areas of strategic management, fundamental budget structure and process, and the role of the Budget Office. There is a continued lack of a unified planning and budget process that is not well integrated. A recommendation to address this issue is the creation of a Corporate Planning and Resources Board. Additionally, NOAA should strengthen the role of the assistant administrators (AAs) in the annual strategic planning process. Strategic plans and management activities should include developing an agency annual performance plan that NOAA sends to DOC. Other recommendations include restructuring the line office annual operating plans and comparing obligations at the senior management level to these plans, maintaining a clear link between cross-cutting initiatives and the budget structure, and tracking by senior management of progress toward these initiatives. NAPA found it necessary to give the newly established Budget Restructuring Task Force top priority support. NOAA should place accountability for corporate costs with the director of budget by transferring the function to the Budget Office and establish a working capital fund (WCF) to place corporate cost activities on a fee-for-service basis. Further, the administration should convert non-service activities now funded by assessments to appropriations, as well as develop a clear and formal requirements definition and budget formulation and analysis process with a schedule that feeds corporate cost estimates. The study finds a need to conduct a comprehensive base analysis of all programs, including the NOAA-wide and line office corporate costs and NOAA indirect costs. NAPA also stresses the importance of providing management attention and resources required to implement CAMS successfully. Major improvements in the line office financial operating plan process are required, including the capacity upgrade of the Budget Office and a review of current staffing allocations. NOAA should consider reorganizing the Budget Office along programmatic lines, rather than functionally by formulation and execution, to provide a one-stop shopping focus for line office customers.

Title: Semiannual Report to Congress	
Date: March 2003	**Author:** Office of the Inspector General (OIG)

This report about the Department of Commerce evaluates its critical functions. While it highlights significant progress in implementation of CAMS, the report discusses weaknesses and recommends improvements from NOAA in performance measurement, management and internal control.

Top 10 Challenges for the Department include: (1) strengthen financial management controls and systems, (2) strengthen Department-wide information security, (3) enhance export controls for dual-use commodities, (4) effectively manage departmental and bureau acquisition processes, (5) enhance emergency preparedness, safety, and security of Commerce facilities and personnel, (6) successfully operate the US Patent and Trademark Office as a performance-based organization, (7) increase international compliance with trade agreements and expand market access for American exporters, (8) increase the effectiveness of marine resource management, (9) continue to improve the Department's strategic planning and performance measurement in accordance with the GPRA, (10) effectively manage major Commerce renovation and construction projects.

Additional improvements are needed in NOAA's "Corporate Costs" process. Tighter management controls should be addressed for NWS' Travel Card program to resolve misuse and delinquencies among cardholders. The report also points that accuracy and reliability of some NOAA performance measures are questionable. Proactive measures are necessary to improve federal fisheries enforcement.

Title: Data Element Report	
Date: July 28, 2003	**Author:** BearingPoint

In this report, Bearing Point identifies and defines the data and their sources used in the NFA ABC/M model, which requires a large amount of data drawn from all over NFA to operate successfully. These data elements include resource drivers, activity drivers, output measures, and performance measures.
This report analyzes each service for the functional areas to identify performance measures, sources of data, data collection levels of effort, data collection methods, data validation processes, frequency of updates, and recommendations. Bearing Point identified "At Risk" Data Elements with significant data quality or collection issues and suggested that they be addressed, recommending that NOAA improve the data input quality and efficiency through the implementation of common data sources, streamlining data collection processes, and standardization of business line services across ASCs.

Bearing Point also recognized a need to update SAS licensing agreement (for ABC Modeler software) and leverage SAS ABM's new capabilities. The report stated that NOAA should refine its ABC/M Process and migrate to Activity-Based Budgeting and Planning (ABB/ABP). The administration should also support the electronic capture of ABC/M Modeling Data Elements and create a Web-based central repository of all ABC/M materials. Final recommendations included the development of standard operating procedures for all business lines' services and a best practice assessment of Government Working Capital.

3.5 OVERARCHING ORGANIZATION AND MANAGEMENT ISSUES

NOAA's challenges with its central finance and administrative services during the past twenty years are well documented, and share a common theme of ineffective functional management leadership that must be adequately addressed if these services are to meet the expectations of NOAA, the Department of Commerce, the Administration, and Congress.

NOAA's traditional approach to the organization of its finance and administrative functions has directly contributed to the problem of weak administrative functional leadership, in several ways:

- NOAA's structure as a confederation of semi-autonomous offices weakens the authority of all Headquarters functions, including administrative services. The independence of NOAA Line Offices has kept administrative functional managers from having strong visibility into, or control over, administrative activities carried out within NOAA Line Offices.
- The creation of the ASCs gave ASC Directors line authority over ASC functional staff. In doing this, the leadership role of administrative services functional management was weakened.
- Congress's approach to funding NOAA operations has traditionally been to fund NOAA's Line Offices and programs with direct appropriations and earmarks, leaving NOAA's finance and administrative services functions under-funded and in the unfortunate position of asking the Line Offices for sufficient funding to support continued operations. When HQ managers cannot visit field sites because of insufficient travel funds, the plight of functional leadership becomes starkly clear.
- These factors have also reportedly contributed to NOAA's difficulty in attracting and retaining highly qualified people. Many competent, experienced staff reportedly left NOAA, while others have migrated to NOAA Line Offices.

Beyond these factors, our review has identified a number of important issues that appear to be detracting from the cost-effective delivery of finance and administrative services to NOAA customers. These include the following:

A technologically obsolete regional service delivery model characterized by widely varying service levels and limited functional oversight

The original DOC-wide support center concept has not proven workable in practice. Other DOC bureaus opted out years ago, leaving NOAA as the ASCs primary customer. Service policies and performance levels vary widely among regional support centers, with some centers appearing to be well managed, others weak. Administrative policies and procedures are inadequately documented, and staff competency reportedly varies widely despite training investments. Only 5-10% of ASC business is from non-

NOAA customers, but this is cited by the ASCs as one reason for their inability to standardize. Inconsistent service levels among ASCs has resulted in NOAA Line Offices admittedly "shopping" among support centers for the best service. A 1995 force reduction reportedly eliminated many policy-setting positions in Headquarters finance and administrative functions, and these positions have not been restored. As a result, NOAA lacks a culture of standard policy setting and execution. In addition, the ASC organizational concept does not reflect the ability of contemporary IT (primarily internet-enabled electronic information access and transaction processing, using enterprise-wide information systems) to enable location-independent service delivery.

Ineffective, un-empowered functional leadership

Functional HQ administrative services managers wield little real authority over field operations. Functional staff in the support centers report to their ASC Directors, not to the respective functional lead at HQ. It is unclear what, if any, role HQ functional leads have in the management and oversight of field functional staff. Although the "DC support center" was presumably closed years ago, Line Office HQ staff continue to receive administrative services from HQ units in Washington, detracting from the ability of these units to provide policy and governance oversight to functional field operations.

There appears to be a consistent lack of effective management across finance and administrative services functions – little planning, few controls, no training, and poor morale seem to be common. A succession of CFO/CAOs have failed to lead NOAA effectively, with the most recent being removed by elimination of the position in December 2002. While at least twelve studies of NFA operations have been undertaken in the last fifteen years, few improvement actions have resulted from these analyses, an indication of the ineffectiveness of NFA leadership to execute meaningful change.

Embryonic and uncoordinated planning, budgeting, and performance management processes, perceived as adding little value

NOAA-level support to these processes is uniformly perceived by NOAA Line Offices, DOC, and OMB as adding little value. For example, the Budget Office "assembles" line office budgets and responds to DOC, OMB, and Congressional information requests, but this function is viewed as a "pass-through" with little value-added. OMB and Congress view NOAA's budget formulation and execution process as weak, with the interface between Headquarters and NOAA field operations seen as ineffective. Each NOAA line office has its own budget formulation process. Line Office CFO's meet to formulate budget policies, rather than responding to guidance coming from the Budget Office. There is also an apparent lack of an effective budget formulation process for NOAA's finance and administrative functions. The budget is reportedly based on history, but not linked to projected service demands of customers. In addition, strategic planning, budgeting, and performance management, including program analysis and

evaluation, do not appear to be effectively integrated at NOAA. Each of these functions is organizationally isolated from the others.

Lack of cost and performance accountability for NOAA finance and administrative service

Line Offices reportedly do not understand what they are paying for in the delivery of finance and administrative services, driving NOAA toward a fee-for-service basis for services. More urgent, however, is the need for performance accountability within NOAA's corporate finance and administrative services functions. Performance data are not routinely generated to enable functional managers to understand performance levels, trends, variations, and root causes of performance shortfall. For example, neither process cycle times nor transaction volumes are routinely or consistently tracked. Even if such data was captured and reported, functional managers currently have no direct accountability for the overall performance of their functions.

Weak IT systems, with no IT strategic plan to address. Multiple IT policy and planning functions exist

There are numerous, incompatible desktop applications throughout the organization. In addition, CAMS, while being used effectively as an accounting system, is not used to its full functionality. For example, the procurement module is being used to record obligations, but the entire system is not yet being utilized. As a result, the ability of CAMS to reconcile financial information from the line offices has not yet resulted in a streamlining of the budget execution process at NOAA HQ.

Organizational role redundancy

Exhibit 3-10 highlights the key attributes of the current NOAA finance and administrative services delivery model. The exhibit illustrates the redundancy in the primary roles of each of the key structural elements in the model:

Exhibit 3-10: Key Attributes of the Current NOAA Administrative Services Model

	DOC	NOAA HQ	ASCs	Line Offices
Primary Roles	• Policy and planning • Interagency coordination • Compliance oversight	• NOAA policy • Planning and budgeting • Compliance oversight • Coordination • Operational support	• Planning and budgeting • Operational support	• Policy development • Planning and budgeting • Operational support
Structural Orientation	• Functional	• Functional • Customer (in certain areas)	• Geographic • Functional	• Customer • Functional
Coordination mechanisms	• Chief Administrative Officer	• Functional councils (NOAA Executive Panel, etc.)	• ASC Directors	• Chief Administrative Officer

- Responsibility for delivery of operational support services is shared by NOAA HQ offices, ASCs, and NOAA Line Offices
- Responsibility for administrative policy development is shared by DOC, NOAA HQ, and NOAA Line Offices (through NOAA councils and committees)
- Responsibility for planning and budgeting is shared by DOC, NOAA HQ units, ASCs, and NOAA Line Offices
- Responsibility for compliance oversight is shared by NOAA HQ and DOC

While some level of organizational redundancy may be appropriate to facilitate the aggregation of information and coordination of effort, the pervasive nature of overlapping roles among organizational levels in the NOAA administrative chain of command appears to result in unnecessary duplication of effort and resources.

Exhibit 3-10 illustrates the structural orientation of each layer in the NOAA administrative chain of command. Note that the primary structural orientation varies from functional to geographic to customer, at different points in the chain, with no clear "field of vision" through the chain for administrative functional managers to assess the demand, cost, service processes, deployment of resources, or performance levels and trends of the function for which they are responsible.

Exhibit 3-10 also illustrates the inconsistency of mechanisms for achieving cross-functional coordination at various organizational levels in the NOAA administrative chain of command. For example, at DOC and NOAA Line Office levels, a Chief Administrative Officer position has overall responsibility for coordination of all finance and administrative services functions. However, at NOAA HQ, no comparable position exists. Instead, NOAA utilizes a Council and Committee structure comprised of functional leadership from NOAA HQ and Line Offices. Within ASCs, ASC Directors are charged to perform a center-level coordination function across finance and

administrative service functions. However, it is not clear that coordination at this level is of any significant value.

An organizational culture unsupportive of administrative functions

NOAA's primary mission as a scientific research enterprise produces an organizational culture not unlike that of a university, where administrative functions are viewed as overhead, of little value added, and a diversion of funds from the institution's core business. Moreover, because the NOAA Line Offices pre-date the existence of NOAA as an agency and because of their extensive geographic footprint, they retain strong relationships with legislators, who traditionally earmark funds for specific NOAA programs without adequately reflecting the true costs of administrative support. These cultural attributes have detracted from NOAA's ability to develop and execute an effective finance and administrative services delivery model.

Lack of reliable, timely funding for NOAA-level finance and administrative services

Congress has historically appropriated only a fraction of the actual cost of NOAA corporate administrative services, leaving the finance and administrative services organization to petition Line Offices for diversion of appropriated funds to NFA. This has introduced significant uncertainty and delay in NOAA's ability to plan and execute its corporate administrative services agenda. For example, Grants Management is a large and growing issue for NOAA – representing 1/3 of NOAA's annual budget – and reportedly not well managed. From FY00 to FY03, the volume of NOAA grants increased by 45%, to 1506, and the value of grants awarded grew by 74%, to $854 million. However, NOAA has experienced difficulty managing this increased grants volume, in part because of funding levels not keeping pace with increased demand and delays in funding causing workload peaks late in the fiscal year. For example, 91% of NOAA grants awards are made in the second half of the fiscal year, with 65% awarded during the fourth quarter.

In its appropriation for FY04, Congress is expected to fully fund NOAA administrative services through direct appropriation, as reflected in the Senate appropriation committee's mark-up to the FY04 budget…

"NOAA covers the costs of certain central services through a system of internal "taxation". The costs of other central services are covered through a payment to the Department of Commerce's Working Capital Fund. Rather than budget for these expenses, NOAA has always skimmed funds from program, project, and activity lines. Congressional supporters of NOAA have been understandably frustrated by these hidden taxes on essential programs. The Committee recommendation eliminates the taxation system by adding new lines under Program Support that totally fund central services. Henceforth, funding in program, project, and activity lines shall be available only for those programs, projects, and activities unless NOAA submits, and Congress approves, a reprogramming."

…albeit with Congress' clear expectation that these central service expenditures will be reduced in future years through organizational restructuring and operational enhancements, leading to significantly increased productivity and service performance. Future NOAA administrative budget appropriations are likely to be highly directive and tightly controlled, to ensure these outcomes.

4. PROPOSED CONCEPT OF OPERATIONS

This chapter summarizes organizational redesign goals and evaluation criteria, alternative organizational models for administrative services delivery, a proposed high-level concept of operations, global recommendations for moving toward the recommended concept, projected impact on organization, staffing, and cost, and estimated costs associated with transition.

4.1 ORGANIZATIONAL REDESIGN GOALS AND EVALUATION CRITERIA

By their very nature, organizations are changing entities. As such, an organization's structural design needs to be responsive to the changing dynamics within as well as external to the organization. Any of a number of factors (typically along with other forces) can drive the need for a new organizational model:

- Changes in an organization's strategy are needed to match changes in the environment, resources, or organizational capabilities;
- Growth in the size or scope of an organization;
- Major changes within the workforce;
- Changes in the way an organization performs its work due to shifts in strategy, new technology, or availability of resources; and
- Performance problems caused by the present organization's design.

Certain fundamental principals govern organization re-design and serve as the foundation to improving organizational effectiveness and achieving the goals of an organizational design effort.

- One: to improve organizational effectiveness, a balance must be achieved between *strategy /work performance* (e.g., achievement of the organizational strategy, facilitating the flow of work and information, improving coordination and managerial control, and creating achievable and measurable work roles) and *individual/social/cultural issues* (e.g., staff migration, power relationships and status, organizational values and beliefs, and organizational climate).
- Two: the goal of organizational design is to increase the congruence (i.e., fit) among its components – work (e.g., job design elements), people (e.g., individual competencies), the formal organization (e.g., structure, processes), and the informal organization (e.g., norms/values).
- Three: information processing requirements need to fit the organizational design to improve integration, coordination, and information sharing.

Some organizations are quick to assume that changing the organizational structure (e.g., by centralizing or decentralizing functions) will, in itself, address its underlying problems. However, it is rarely this simple. Organizations that have successfully

designed and implemented a new organizational design have found that a series of integrated changes must be made at three levels: the structure, the operating model, and the geographical footprint.

Structural changes address characteristics such as reporting lines, management layers, and spans of control – issues that, on the surface, pertain to the "look" of the new organization.

The *operating model* refers to the core components that must be aligned with the new structure so that service delivery is most effective. This includes realigning processes (i.e., reengineering processes to achieve greater efficiencies), technologies (e.g., creating a complementary self-service function – accessible via telephone, web portal, and kiosk – to streamline how employees can contact service providers), and employee competencies (e.g., assessing skill gaps, training needs, and career paths). It may also entail defining a portfolio of services, governance structure, customer relationship management, performance measurement and management, and service agreements. In essence, changing the operating model addresses the underlying problems in ways a structural change alone cannot.

The *geographical footprint* defines location issues and the resultant impact on service delivery and staffing. For example, decisions must be made in regards to whether greater efficiencies can be gained and whether better service can be provided if staff are co-located with their customer base versus with other administrative services. Decisions must also be made with consideration for staffing issues, given that changes to the location of service delivery impacts employees who have been performing those functions.

4.2 EVALUATION OF ALTERNATIVE ORGANIZATIONAL MODELS

Creating a new organizational design entails detailed analysis and design in areas beyond the structure itself. We looked at a number of classic organizational design options that might be considered for NOAA. Exhibit 4-1 presents the options we considered, as they pertain to the delivery of finance and administrative services, along with the advantages and limitations of each.

Exhibit 4-1: Some Classic Organizational Design Options for Finance and Administrative Services Delivery

	Definition Description	Advantages	Disadvantages/Limitations
Functional Structure	Service delivery organized by functions (e.g., finance, human resources, and facilities management)	• Allows for efficiency gains and economies of scale • Encourages collaboration and attention to quality within each function • Facilitates greater sharing of functional knowledge • Makes more efficient use of resources (e.g., staff can better adapt to workload demands) • Is a structure that can easily be applied to a shared services model • Facilities Standardization	• Requires mechanisms to ensure coordination and communication across functional units • May result in functional units with different priorities, management structure, and accountabilities • Creates managers with depth rather than breadth – may inhibit managerial mobility across functional areas • More distant from organization's core mission
Geographic Structure	Service delivery organized by geographical regions	• Able to remain knowledgeable about and respond to environmental and market demands in a given geographic area • Facilitates faster customer response time, if face-to-face interaction is needed • Supports cross-functional skills development, strengthening the overall capabilities of the team • Minimizes travel-related costs	• Requires mechanisms for sharing resources and knowledge across same functions in different geographical units • Depending on the number of geographic regions, can result in duplicative functions, redundant resources, and excess management layers • Inconsistencies in service delivery may result if geographical units create unique methods of service delivery • More distant from organization's core mission
Business Unit Structure	Service delivery organized by customer organizations	• Able to focus on and serve unique needs of customers • Closer to organization's core mission, which facilitates staying abreast of changes in customer needs and preferences • Able to coordinate and integrate the delivery of various functional services to a given customer • Supports cross-functional skills development, strengthening the overall capabilities of the team	• Inconsistencies in service delivery may result if customer-facing units create unique methods of service delivery • Depending on the number of customer organizations, can result in duplicative functions, redundant resources, and excess management layers • May limit career mobility of opportunities are few due to smaller sized service delivery teams per function
Multi-Tiered Structure	Uses some hybrid of the described structures (e.g., sub-structures within structures, different structures at different levels in the organization)	• Allows the organization to take advantage of the benefits of multiple structural options • Can enhance customer service delivery by closely aligning providers and customers	• More complex model; may increase management layers • Requires additional communication to customer base to ensure clear distinction of service providers

The structural options presented above are independent of macro-level decisions to centralize, decentralize, or transition to shared services. In fact, the above options can be applied within a centralized, decentralized, or shared services model. Many government agencies have experienced shifts over the years from centralization (which was often efficient, but not effective) and decentralization (which was often effective, but not efficient). Following the private sector's lead, some government agencies are

now turning to shared services, which allows for the consolidation of administrative services into a customer focused organization that is designed to be both efficient and effective. Exhibit 4-2 shows examples of other government agencies and their current organizational design for delivering finance and administrative services.

Exhibit 4-2: Examples of Other Agencies' Finance and Administrative Services Organizational Designs

Agency	Functional Structure	Geographic Structure	Business Unit Structure	Multi-Tiered Structure
Department of Labor (DOL)	✓			
Department of Veteran's Affairs (VA)[1]			✓	
Internal Revenue Service (IRS)			✓	✓
Department of Homeland Security (DHS)	✓			
National Geospatial Intelligence Agency (NGA)	✓			
U.S. House of Representatives	✓			
National Reconnaissance Office (NRO)	✓			
Department of State	✓			
Central Intelligence Agency (CIA)				✓
National Aeronautics and Space Administration (NASA)[2]			✓	✓
General Services Administration (GSA)	✓			
General Accounting Office (GAO)	✓			

[1] VA organizes its IT Division by customer base and is currently working to migrate to a functionally based organization that would serve the entire Department.
[2] At the senior level, NASA organizes its administrative services by functional area. At lower levels, NASA organizes its administrative services by customer business unit, i.e., flight centers.

Strategically designed organizations result in improved organizational performance and overall effectiveness. Properly designed, the right organizational design should be appropriate given the organization's mission, strategies, and goals; facilitate high levels of coordination across units; align people, processes and systems, and experience positive, measurable outcomes in commitment, effectiveness, and efficiency.

In addition to analyzing the alternatives for organizational structure, we developed and evaluated recommendations against a set of customized criteria to ensure the new

structure, once implemented, would meet NOAA's needs now and in the future. Exhibit 4-3 identifies and defines the criteria and provides an evaluation of alternative operating models against these criteria.

Once fully implemented, the new operating model will fully meet the objectives of six criteria: Responsive to Customer Needs, Support Performance Accountability, Leverage Technology, Promote Standardization, Streamline Processes, and Reduce Costs of Service Delivery. The recommended functional model clearly illustrates that performance accountability is at the functional manager level. In addition, the responsibilities of the functional manager include creating and enforcing policy and holding staff accountable, therefore ensuring standardization throughout the function. The new model will create the necessary foundation for process streamlining through the elimination of the ASC layer and centralizing the policy making function with the functional managers, but developing streamlined processes will be up to NOAA and the functional manager. As such, the recommended model mostly meets this criterion.

Customer needs will be met as an indirect result of the new organizational structure. Specifically, they will be met through the actions of the centralized functional leadership in making and enforcing policy, streamlining processes, etc., not as a direct result of the re-organization alone, and therefore somewhat meets the criterion. The leveraging of technology is also an indirect result and an expected outcome of the actions of the strong functional IT leadership, but not inherent in the new structure, so it is also rated as somewhat meeting this criterion.

Throughout this document, these criteria are referred to in each functional area recommendation section.

Exhibit 4-3: Alternative Models Evaluated

	Criteria for Recommended Operating Model						
	Responsive to Customer Needs	Support Performance Accountabilit	Leverage Technology	Promote Standardization	Streamline Processes	Reduce Cost of Service Delivery	Aggregate Score
Functional Structure	2	4	2	4	3	4	4
Geographic Structure	4	1	2	1	1	2	2
Business Unit Structure	3	2	2	1	1	2	2
Multi-Tiered Structure	4	1	2	3	2	2	3

Key: 0 Does not meet criteria 1 Minimally meets criteria 2 Somewhat meets criteria 3 Mostly meets criteria 4 Fully meets criteria

4.3 PROPOSED HIGH-LEVEL CONCEPT OF OPERATIONS

Based on our assessment of NOAA's finance and administrative services functions, the results of our analysis of current workloads and staffing levels, performance levels and trends, internal and external performance benchmarks, and a review of a variety of organizational design options, we conclude that a new concept of finance and administrative services operations is required. This new organizational design is necessary in order for these operations to reach their full potential of cost-effectiveness and customer service performance. This recommended new Concept of Operations features several key elements, highlighted below, which underlie the more detailed functional recommendations in this report. The key elements of the new concept of operations include:

1. Significantly enhanced functional management authority and accountability

At the core of NOAA's challenges in building a cost-effective finance and administrative service delivery model is the vital need to strengthen the quality of leadership and performance within each of its finance and administrative functions.

Specifically, NOAA must give each of its finance and administrative functional managers the clear authority, responsibility, resources, organizational reach, and accountability for performance to effectively direct their respective service functions NOAA-wide. This basic need for increased functional management authority and accountability is the central theme of the Concept of Operations recommended for NOAA finance and administrative services. Several important organizational design elements flow directly from this central theme, related specifically to the role and responsibilities of NOAA's functional managers.

In the proposed Concept of Operations, Functional Managers will have direct line authority over all NOAA-level finance and administrative staff, including all those who work in administrative support centers. Functional Managers will also maintain "ownership" of all NOAA finance and administrative services processes, regardless of where or by whom they are conducted. In this role, they are ultimately responsible for the efficiency, effectiveness, cost, and customer satisfaction of such processes. It is recommended that they carry out these responsibilities through a collaborative management process that includes leadership of NOAA-wide functional committees and councils.

They will be directly responsible for all aspects of the effective management of their respective functions NOAA-wide, including:

- Planning, budgeting, and goal setting;
- Policy and procedures design, development, dissemination, and maintenance;
- Process and organization design and improvement;
- Staff hiring, competency development, training, deployment, performance appraisal, and compensation;
- Technology deployment and utilization;
- Administrative management of service facilities and equipment; and
- Service cost and quality performance tracking and reporting, etc.

Functional Managers will be responsible for determining which organizational entity(s) should perform each activity under their jurisdiction, as defined above, including:

- Determining the extent of centralization/decentralization appropriate to each functional service process under their jurisdiction;
- Identifying the appropriate line of demarcation between the activities of central services units and NOAA Line Offices; and
- Determining which finance and administrative activities should be outsourced, identifying sources of supply for the performance of such activities, negotiating service agreements with suppliers, and overseeing their performance.

Functional Managers will be integrated organizationally under a NOAA Assistant Administrator for Management who will be responsible for coordinating all finance and administrative services.

Functional Managers will maintain strong centralized policy and procedure guidance and compliance monitoring, with end-to-end functional oversight of their respective operations. They will have functional line responsibility for NOAA-wide service functions, to ensure consistent service performance.

2. Consolidated operational support locations, under direct Functional Management leadership

Establish Eastern Operations and Western Operations in order to meet customer needs in providing time zone coverage and ease of travel to customer sites for certain service delivery. This two-location model will also provide for Continuity of Operations (COOP) in case of technology failure or national emergency. The current model of providing services under the leadership of the ASCs is no longer necessary since the Functional Mangers at Headquarters are operationally responsible for service delivery. Western Operations will be housed in Seattle, WA with some staff in Boulder, CO. Eastern Operations will be located in the Washington, DC metropolitan area. Our recommended operating model provides for maximizing processing efficiencies at two geographic locations, rather than selecting locations based on current Centers of Excellence or current operating efficiencies.

By leveraging and enabling Internet technology and adopting the recommendations for process streamlining detailed by function in this document, NOAA will be positioned to provide location-independent service delivery from these locations.

This model will eliminate the four current ASC director positions and any supporting administrative staff. The oversight role of the ASC directors for the various finance and administrative functions will be reassigned to the respective Functional Managers at Headquarters.

3. Standardized, streamlined, and reengineered administrative services processes
Each Functional Manager would, under the proposed concept of operations, launch a comprehensive performance improvement program within his/her functional area of responsibility. This program would systematically explore, verify, design, and implement improvements in policies, procedures, process design, workflows, technology, workforce deployments, facilities, and management controls appropriate to each functional area's potential opportunities and needs as outlined by the functional recommendations section in this document. These recommendations include opportunities to:

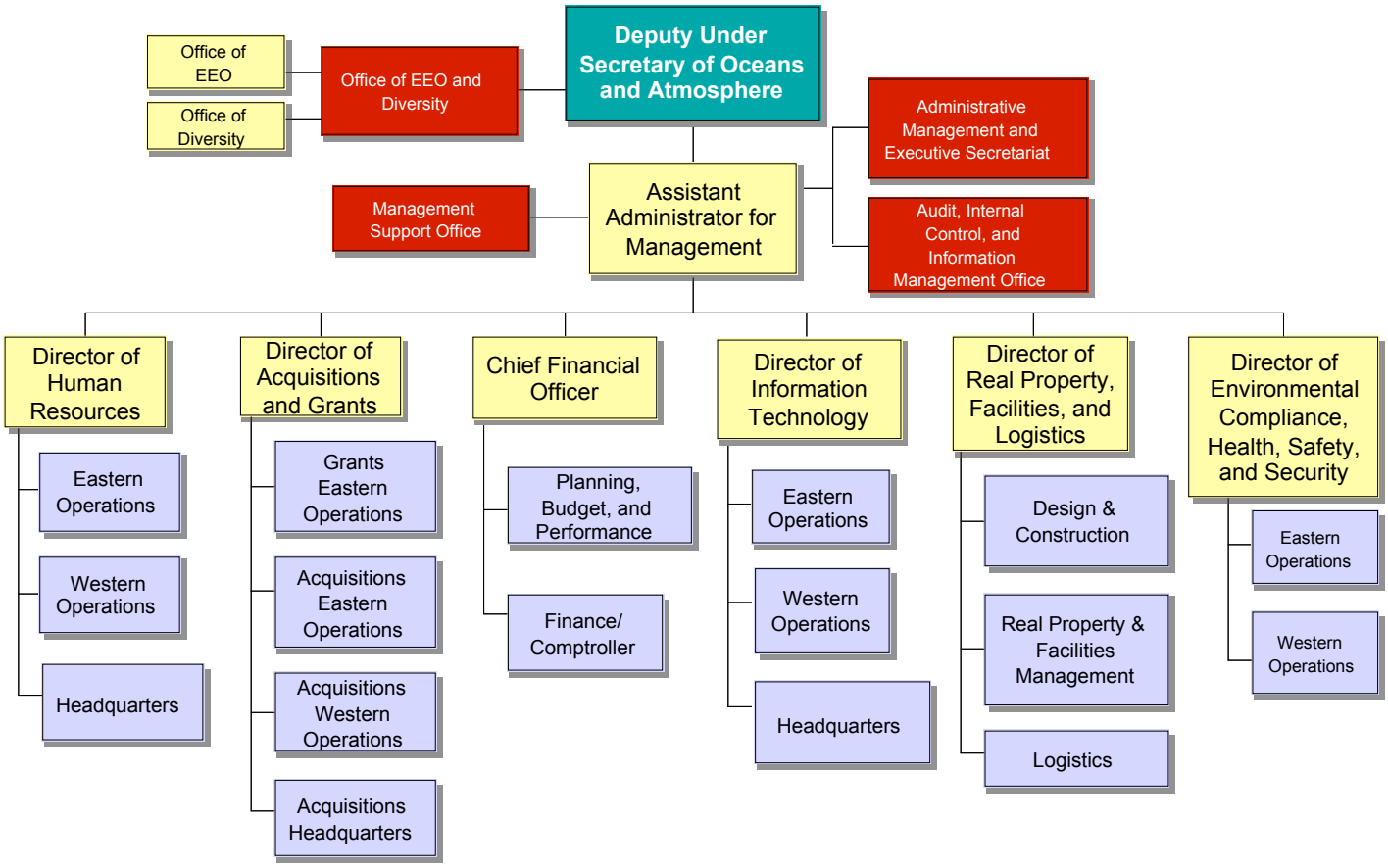
- Standardize administrative processes and performance across NOAA, using internal performance benchmarks, increased policy and procedural

documentation, effective performance management systems, and expanded staff training.

- Simplify and streamline service processes and structures to include: reengineering of processes to eliminate non-value-added activities, rationalize activity and resource mix between line offices and central administrative services, leverage current ERP functionality (CAMS, etc.), focus first priority on supporting NOAA operations, serve other agencies only as cost-effective.
- Consolidate related activities to increase scale economies and improve coordination. For example, explore the possibility of moving certain finance and administrative activities to NOAA line offices, as appropriate. Combine strategic programming and budgeting, PA&E, and performance management within the purview of the Chief Financial Officer.

The highlights of the Concept of Operations combined with the detailed recommendations for service delivery improvement, lead to a recommended structure for an integrated NOAA finance and administrative services organization. The To-Be structure is shown below in Exhibit 4-4. This figure shows the reporting structure of the Functional Managers at the Headquarters level and the relationship to NOAA and DOC leadership. Each functional area presents as As-Is description of its respective service delivery model as we observed it in its current state of operations, and the recommended To-Be state that incorporates the new Concept of Operations as well as function specific recommendations.

Exhibit 4-4: Recommended Administrative Services Organization



The following chapters of this report outline the detailed functional recommendations that also support the functionality of this structure. The recommendations are organized in two categories: globally and by function. The global recommendations are described below and are designed to be implemented cross-functionally, since they affect the organization as a whole and can be applied to all functions. The functional recommendations were developed specific to each functional area and are designed to maximize improvement of service delivery through a variety of approaches. Looking across the entire scope of recommendations, general themes emerged including:

- Enhanced functional planning, budgeting, and goal-setting processes;
- Intensive process reengineering, utilizing internal and external best practices and reflecting increased utilization of available technology functionality;
- Expanded management information systems, to track key performance indicators and trigger performance improvement initiatives;
- Comprehensive staff competency assessment, driving an expanded staff training agenda;
- Intensified policy and procedure development, documentation, and dissemination; and

- Expanded exploration of outsourcing options for selected processes and activities.

The Transition Plan in Chapter 13 provides a comprehensive approach for implementation of all recommendations, globally and by function.

4.4 GLOBAL RECOMMENDATIONS

The functional based chapters in this report identify actions recommended to transition NOAA's finance and administrative functions from their current performance model to the new recommended model. This section describes a group of global recommendations that will impact all NOAA finance and administrative staff and activities.

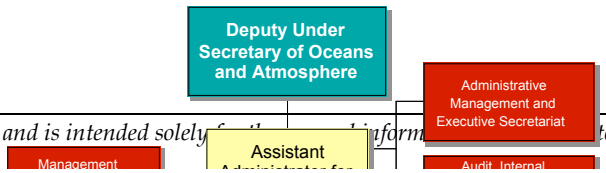
RECOMMENDATION GL.1: Establish the Office of the Assistant Administrator for Management

This recommendation includes the establishment of the Assistant Administrator for Management (additional 5 FTEs), the elimination of the Office of the Chief Administrative Officer (reduction of 13 FTEs), and the elimination of the ASC directors and their immediate staff (reduction of 18 FTEs). This is a total reduction of 26 FTEs.

In the proposed new concept of operations, we recommend that an Assistant Administrator for Management be designated. This individual would have responsibility for managing all finance and administrative functions and report directly to the Deputy Secretary of Oceans and Atmosphere.

As depicted in Exhibit 4-5, the Director of Human Resources, Director of Acquisitions and Grants, Chief Financial Officer (CFO), Director of Information Technology, Director of Real Property, Facilities and Logistics, and Director of Environmental Compliance, Health, Safety, and Security would report directly to the Assistant Administrator. Also reporting to the Assistant Administrator would be the Administrative Management and Executive Secretariat (AMES), the Management Support Office (MSO), and the Audit, Internal Control and Information Management Office. The MSO is discussed in Recommendation OT.3 in Section 13.

Exhibit 4-5: Headquarters NOAA Finance and Administration To-Be Structure*



Note: Partial organizational illustrations are depicted here.

The Office of the Chief Administrative Officer currently has 13 authorized and filled positions, with its staff dispersed across the country. There are currently three Facilities Constituents and Outreach Managers (GS-15) within the CAO's office that are functionally aligned to design and construction (D&C) operations. We recommend that these personnel be administratively assigned to the Construction Projects Office (CPO), where they would continue to serve as project directors and contributors to policy and procedure development. The proposed new Office of the Assistant Administrator for Management would have a total staff of five FTE, including the Assistant Administrator for Management (ES-00), one Secretary (GS-9), one Administrator Officer (GS-11), and two Program Analysts (GS-13).

The new Headquarters model will bring a reduction in staffing costs. Since many of the functional responsibilities would be realigned to other areas, the staffing level will be reduced from the 13 FTE, currently in the Office of the Chief Administrative Officer to a streamlined staff of five FTE for the Office of the Assistant Administrator for Management. This realignment will effectively place the Assistant Administrator for Management closer to other Assistant Administrators (AAs) as well as the Deputy Under Secretary. As a result, management and administrative issues with line offices, such as the need to update technology, may be surfaced and addressed much more efficiently.

RECOMMENDATION GL.2: Create a Transition Program Management Office (PMO) to manage transaction activities

A number of recommendations are offered in this report. The Transition Plan identifies the schedule and costs associated with the implementation of those recommendations. In order to ensure that the recommendations are successfully implemented within an acceptable timeframe and at an acceptable cost, we recommend that NOAA create a Project Management Office (PMO). Further, we recommend that a full time NOAA staff member be appointed as the Transition Project Manager, with full accountability for managing transition activities. We recommend that the PMO be established and a Transition Project Manager be named as soon as NOAA senior management has made the decisions required to move forward.

Under the direction of the Transition Project Manager, the mission of the PMO would be to:

- Work with NOAA senior executives to establish transition objectives and priorities;
- Develop a strategy to measure achievement of objectives and be accountable for achieving these objectives;
- Identify specific transition activities, develop transition project schedule, and prepare a transition budget;
- Manage and be accountable for transition activities on an on-going basis, including meeting project schedule, staying within budget, and managing project risks;
- Be accountable for identifying required transition resources, both from within NOAA and appropriate contractor support, and for managing these resources on an ongoing basis; and
- Manage and be accountable for the implementation of a Change Management Strategy, to address issues related to communication and culture.

We recommend that a Transition Advisory Board be created to support the Transition Project Manager. This Board would be composed of representatives from each of the functional areas (and impacted Headquarters organizations) within the scope of the transition effort. In addition, representatives from the Line Offices (and possibly non-NOAA customers) should be included to ensure that all customers are represented. Board members should meet monthly to support effective coordination, communication, and early issue identification and resolution. The Transition Plan recommends a three-phase, three-year transition plan, and we recommend that the Transition PMO be established for the duration of the implementation period.

RECOMMENDATION GL.3: Develop a plan to re-staff key positions in the new organizational structure

The cumulative impact of the changes to staffing proposed in this document is significant. In order to maximize the opportunity presented to realign and upgrade staff and to minimize the risks associated with the proposed changes, we recommend that a Staffing Plan be developed. This plan will help NOAA leadership determine the impact of the proposed staffing model, identify which positions will be right-sized, identify need for filling key leadership positions and candidates for these positions, and establish the best strategy for implementing those changes. The Staffing Plan will address how to staff the positions in the new organizational model and how to soften the impact for positions that will be removed. For example, the plan would guide leadership in prioritizing positions that would be transitioned out, as well as define new position descriptions (PDs) for those positions that will be added or changed. The

plan should also support budget planning to anticipate the impact and related costs of placement, transition, and separation packages under a variety of scenarios.

In order to ensure a successful transition to the new staffing model, NOAA will need to assess the competencies required by various positions, determine selection criteria for the positions, and compare these against the current baseline. Transition options will be explored, including retraining of existing staff, hiring new staff with the requisite skills and competencies in a competitive process, allowing lateral transfers of current staff, and contracting out for services that can not be provided by government staff. Other considerations for right sizing the workforce include using early retirement, buy-outs, Reductions in Force (RIFs), and support for re-location of staff within NOAA or to other organizations. Each of these options should include consideration of potential risks to morale, disruption in services, labor relations issues, and potential lawsuits from impacted staff. Best practices exist for mitigating these risks and can be used to soften the impact on employees and the organization in this staffing transition. The goals of "soft landing" strategies are to minimize the negative impact on employees and operations while taking into account Federal, union, and legal requirements.

RECOMMENDATION GL.4: Assess the ABC initiative and define the steps required to improve the accuracy and utility of ABC data

As we have indicated in our analysis of the ABC data, while there is much potential value in ABC analysis, the ABC program has not yet achieved its desired level of accuracy and reliability. A great deal of time and effort has already been expended on the collection, refinement, and analysis of ABC data. If the data is to be fully utilized, a substantial amount of additional work will be required. We recommend that NOAA conduct an assessment of this initiative to determine:

- How much additional work will be required to bring the ABC data to a useful level of consistency and quality? What resources are available to perform this work?
- Will this data be useful in supporting NOAA's current interest in identifying the real costs associated with providing administrative services to its customers? In what timeframe is this goal likely to be achieved? and
- Does NOAA want to employ a performance-based budgeting approach to support full cost recovery for administrative services? Can the ABC data, once perfected, be used to support this approach? Is the ABC program, as currently constituted, on track to achieve this objective?

In order to move to a performance based management concept, NOAA should consider leveraging the framework established in the ABC model. While NOAA could abandon the ABC initiative, the need to move to a more robust performance management system would remain, and an alternative path to achieve this goal would need to be identified.

We also recommend that NOAA examine the options for leveraging current ABC data to establish a set of transition performance metrics. A strategy for measuring the impact of the actions contained in the plan must be developed in order to ensure that the plan is achieving the desired results, and to allow for mid-course corrections if results are not achieved. ABC data can be used to support an analysis of the results of process streamlining and other activities.

RECOMMENDATION GL.5: Conduct a study of the services provided to non-NOAA customers by NOAA finance and administrative functions

Based on available information, it is not possible to determine whether NOAA's finance and administrative organization is being appropriately reimbursed by its non-NOAA customers for the work performed on their behalf. We recommend that a study be conducted to answer the following questions:

- Should the finance and administrative organization continue to serve non-NOAA customers?
- What are the true costs of providing reimbursable services to non-NOAA customers? Do current reimbursable revenues adequately cover these costs of service?
- If service is to be continued, what methods should be used to determine appropriate compensation for providing these services?
- How should this reimbursement model be implemented? and
- If service is to be discontinued by NOAA, what other service providers are available to support them? What transition plan should be proposed to withdraw service?

RECOMMENDATION GL.6: Conduct an analysis of the administrative processes and activities carried out within NOAA's line offices

Some of the processes addressed in this study are completely within the control of the finance and administrative organization. The life cycles of many of these administrative processes, however, are spread over both the central finance and administrative organization and NOAA's line offices. In order to examine the end-to-end life cycle of each process, it is necessary to collect information on those parts of each process that are performed within the line offices, and the staff resources associated with each. For this reason, we recommend that NOAA conduct a study of the workload associated with the performance of finance and administrative processes in the line offices. This analysis should result in the identification of opportunities to streamline processes, enhance standardization, and adjust staffing levels. It will also provide information that will be useful in implementing the organizational realignments proposed in this report.

While it does not rise to the level of a global recommendation, we also observe the need for NOAA's administrative services functions to work more closely with the NOAA Performance Measurement Working Group for the effective delivery of administrative management services. The NOAA Performance Measurement Working Group (PMWG) was created in June 2003 by NOAA's Administrator to lead the effort to improve the performance management system in consonance with the Program Planning and Integration Office (PPI), the Office of Strategic Planning (OSP), and the Program Analysis and Evaluation Office (PA&E). All NOAA Line Offices are represented on the Working Group.

The responsibilities of the PMWG include:

- Evaluating the current status of and requirements for performance measurement throughout NOAA;
- Developing an integrated approach to performance management;
- Providing recommendations regarding how the measures resulting from this integrated approach can be incorporated into the NOAA and Line Office Strategic Plans, program planning, and NOAA budget submission;
- Assessing the alternatives and identifying the benefits and costs of creating an enterprise-wide performance data collection, tracking, and reporting information management system; and
- Evaluating performance management education and training requirements for NOAA personnel and recommending a multi-year plan.

We observe that adequate resources and leadership support should be provided within administrative services to ensure the success of PMWG in meeting its objectives. The relationship of PMWG with the proposed Transition PMO should also be strong, to ensure consistency in approach and to avoid potential duplication of effort.

Global Recommendations - Costs and FTEs

The total annual operating costs for the As-Is for the FTEs associated with the global recommendations are $23.6M as shown in Exhibit 4-6.

Exhibit 4-6: Total Global Annual Operating Costs for As-Is

Global	EASC		CASC		MASC		WASC		Wash DC		Headquarters		Total	
As-Is	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost
Government Labor	4.0	$ 508	6.0	$ 762	8.0	$ 1,016	4.0	$ 508	0.0	$ -	13.0	$ 1,651	35.0	$ 4,445
Contractor Labor	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -
Variable Overhead		$ 520		$ 509		$ 703		$ 116		$ 3,277		$ 1,408		$ 6,532
Fixed Overhead		$ -		$ 4		$ 3		$ 3,248		$ -		$ 9,386		$ 12,641
Total	4.0	$ 1,028	6.0	$ 1,275	8.0	$ 1,721	4.0	$ 3,872	0.0	$ 3,277	13.0	$ 12,445	35.0	$ 23,618

Note: Dollars are in thousands ($000s)

The total savings resulting from the implementation of global recommendations are estimated to be 54 percent per year, as depicted in Exhibit 4-7.

Exhibit 4-7: Total Global Annual Operating Costs for To-Be

Global *To-Be*	Western Operations FTE	Western Operations Cost	Eastern Operations FTE	Eastern Operations Cost	Headquarters FTE	Headquarters Cost	Total FTE	Total Cost	Percent Change	Net Cost Differential *
Government Labor	0	$ -	0	$ -	6.0	$ 762	6.0	$ 762	-83%	$ 3,683
Contractor Labor	0	$ -	0	$ -	0.0	$ -	0.0	$ -	0%	$ -
Variable Overhead		$ -		$ -		$ 650		$ 650	-90%	$ 5,883
Fixed Overhead		$ -		$ -		$ 9,386		$ 9,386	-26%	$ 3,255
Total	0	$ -	0	$ -	6.0	$ 10,798	6.0	$ 10,798	-54%	$ 12,820

Note: Dollars are in thousands ($000s)

4.5 OTHER RECOMMENDATIONS

Booz Allen reviewed NOAA financial and administrative services Headquarters organizations, including the Administrative Management and Executive Secretariat, and the Audit, Internal Control and Information Management Office. Recommendations that pertain to these offices are provided in this chapter. In addition, we have included a recommendation concerning the budget function for the Assistant Administrator for Management.

Two other Headquarters organizations are discussed in other areas of this report: the Chief Administrative Office is discussed under Global Recommendations, and the Program Analysis and Evaluation Office is addressed in the Budget chapter of this report.

RECOMMENDATION OT.1: Establish a Management Support Office (MSO) to serve as the Budget Office for the new Assistant Administrator for Management

We recommend that NOAA analyze and reengineer the Business Management Fund Division (BMFD) activities as it transitions to the Management Support Office (MSO). The reengineering will address the budget operations lifecycle, from initial preparation; through submission to the NOAA Budget Office; to execution, monitoring, and end of year close. Process analysis should focus on the MSO's role in all aspects of budgeting. The reengineering team must address the primary question: "if business managers build their respective budgets and submit to the MSO, what value-added activities does the MSO conduct before passing the budget to the NOAA Budget Formulation and Execution Division?" Similarly, the team must identify what value-added activities the MSO will conduct before passing allocated funds to the line offices and staff elements under the Assistant Administrator's control. If value-added activities do occur, the team must also determine how these activities differ, if at all, from those done by the Line Offices. This study will help to determine if the MSO should be reorganized with

new functions or realigned with the same or similar functions that were previously performed by the BMFD.

RECOMMENDATION OT.2: Assess and redesign the records management process for the Administrative Management and Executive Secretariat (AMES)

There is a strong need for process improvement in the Administrative Management and Executive Secretariat (AMES), and it seems clear that a technology solution is required. Because the DOC and NOAA WebCIMS systems are not linked, the Executive Secretariat spends a considerable amount of time on double data entry of records as well as the storage of file documents, and maintenance of both electronic records and hard copy files of documents. Upgraded technology and system linkages would remove double entry of data and increase the quality of the data. AMES indicated a need for two additional FTE, including an administrative clerk and program analyst, but Booz Allen believes that a technology upgrade would address the requirement by improving productivity without augmenting the staff. It would have the added benefit of improving accessibility to records. We have recommended a BPR study to ensure that the technology upgrade proposed meets user requirements and that any impacts to policy and procedures are identified and addressed.

RECOMMENDATION OT.3: Provide additional study assistance for the Competitive Sourcing (CS) Program

As part of the present study, NOAA requested that Booz Allen include an analysis of the options available under the provisions of OMB Circular A-76 (Revised May 29, 2003). In support of this requirement, we reviewed NOAA's FAIR Act documentation and considered what studies have recently been conducted by NOAA in support of competitive sourcing. The function-based chapters of this report address whether competitive sourcing options would be appropriate in each of the areas addressed.

We also addressed the issue of the current workload supported by the organization that manages the Competitive Sourcing Program (CSP). We interviewed key personnel in that program and considered whether the current organization is adequately staffed to meet current and potential needs. The current staffing profile includes one Director (GS-15), who devotes approximately half of his effort to FAIR Act and CS matters, and two fully dedicated Management Analysts (GS-14 and GS-13).

The program director believes that additional manpower and funding are needed to more effectively carry out a broad and complex range of program management responsibilities and to perform analytic responsibilities involving Business Case Analyses and A-76 competition studies. He contends that important program management functions, such as providing staff training and developing detailed program guidance, are hampered by insufficient manpower and funding, and that additional FTEs are required to adequately support their broad range of program

management responsibilities. However, because a substantial restructuring of the finance and administrative organization is proposed in this document and the impact of such a restructuring to the future workload for this program office is uncertain, we have not made a specific recommendation with regard to increasing staffing at this time. We have, however, included a recommendation that funding for additional studies be provided. This funding might be used to support an analysis and prioritization of outsourcing options.

Other Recommendations - Costs and FTEs

The total annual operating costs for the As-Is for the FTEs associated with the other recommendations are $21.0M as shown in Exhibit 4-8.

Exhibit 4-8: Total Other Annual Operating Costs for As-Is

Other *As-Is*	EASC		CASC		MASC		WASC		Wash DC		Headquarters		Total	
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost
Government Labor	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	22.0	$ 2,794	22.0	$ 2,794
Contractor Labor	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -
Variable Overhead		$ -		$ -		$ -		$ -		$ -		$ 2,383		$ 2,383
Fixed Overhead		$ -		$ -		$ -		$ -		$ -		$ 15,884		$ 15,884
Total	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	22.0	$ 21,061	22.0	$ 21,061

Note: Dollars are in thousands ($000s)

The total savings resulting from the implementation of the other recommendations are estimated to be 4 percent per year, as depicted in Exhibit 4-9.

Exhibit 4-9: Total Other Annual Operating Costs for To-Be

Other *To-Be*	Western Operations		Eastern Operations		Headquarters		Total		Percent Change	Net Cost Differential *
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost		
Government Labor	0	$ -	0	$ -	26.0	$ 3,302	26.0	$ 3,302	18%	$ (508)
Contractor Labor	0	$ -	0	$ -	0.0	$ -	0.0	$ -	0%	$ -
Variable Overhead		$ -		$ -		$ 2,816		$ 2,816	18%	$ (433)
Fixed Overhead		$ -		$ -		$ 15,884		$ 15,884	0%	$ -
Total	0	$ -	0	$ -	26.0	$ 22,002	26.0	$ 22,002	4%	$ (941)

Note: Dollars are in thousands ($000s)

4.6 IMPACT ON ORGANIZATION, STAFFING, AND ONGOING OPERATING COSTS

The benefits of the proposed concept of operations are expected to meet the objectives of the evaluation criteria and position NOAA's finance and administrative services to better meet the expectations of NOAA, DOC, and Congress. Benefits at the operational level are expected to include:

- Higher, more consistent, levels of service performance across each functional service area and between service delivery locations;
- Finance and administrative service delivery processes designed to maximize "end-to-end" cost effectiveness and end user satisfaction;

- Elimination of all duplication of effort and organizational redundancy among NOAA central finance and administrative service units, NOAA line offices, and DOC;
- A more streamlined organization structure, flattened to eliminate redundant management layers;
- Strengthened NOAA-wide administrative policy and procedure guidance, supporting staff training and service consistency, matched with equally strong compliance monitoring capability through the performance management initiative;
- Enhanced ability for NOAA to implement a One-NOAA philosophy in the management of the agency's affairs, through stronger, more effective agency-wide leadership of each of its finance and administrative services functions; and
- Adequate, more predictable appropriation funding of NOAA finance and administrative services, resulting from increased stakeholder confidence in cost-effective administrative operations and unified, NOAA-wide approaches to budgeting for required finance and administrative services.

Exhibit 4-10 summarizes the projected overall impact on staffing over the three phases of the transition plan. In total, assuming no change in service demand or transaction volume, a reduction of 144 government FTEs is projected. While there is no net change to the overall contractor FTE level, the areas decreasing contractor support include Acquisitions, Grants, and Finance. This is offset by minor increases in contractor support in Information Technology and Facilities.

It is important to note that these are preliminary estimates of the projected impact of transition on aggregate staffing levels, based on currently available information, and to support the calculation of an expected return on investment. However, it is clear that these actual changes in staffing will depend on detailed redesign of work processes, determination of appropriate improvements in service quality, assessment of the impact of new technologies, staff competency levels and training requirements, adjustments in staff mix between government and contractor employees, and reconfiguration of staff resources among field operating locations. All of these issues are to be addressed in detail as part of the recommended transition plan, under the leadership of the Assistant Administrator for Management and administrative services functional managers.

Exhibit 4-10: To-Be Staffing Model- Overall

Govt FTE	Current 2003	Phase I	Phase II	Phase III	Final 2007	Net Change
DC Metro/Eastern Ops	231.4	0	30.2	22.7	284.3	52.9
WASC/Western Ops	116.7	0	11.4	17.8	146.0	29.2
EASC	71.9	0	-40.0	-31.9	0	-71.9
CASC	118.8	0	-80.0	-38.8	0	-118.8
MASC/Western Ops	111.5	0	-40.6	-20.3	50.6	-60.9
Headquarters	267.6	0	24.3	1.0	292.9	25.3
Total	917.9	0	-94.7	-49.4	773.7	-144.2

Contractor FTE	Current 2003	Phase I	Phase II	Phase III	Final 2007	Net Change
DC Metro/Eastern Ops	95.0	0	-5.4	2.3	91.9	-3.1
WASC/Western Ops	46.2	0	2.8	0.0	49.0	2.8
EASC	3.4	0	-1.1	-2.3	0	-3.4
CASC	7.6	0	-7.6	0	0	-7.6
MASC/Western Ops	8.1	0	-0.5	10.5	18.2	10.0
Headquarters	57.4	0	4.0	8.5	69.9	12.5
Total	217.8	0	-7.8	19.0	229.0	11.2

Exhibit 4-11 depicts the overall cumulative impact of staffing across all three phases beginning with the As-Is.

Exhibit 4-11: Overall Impact of Staffing Across Three Phases

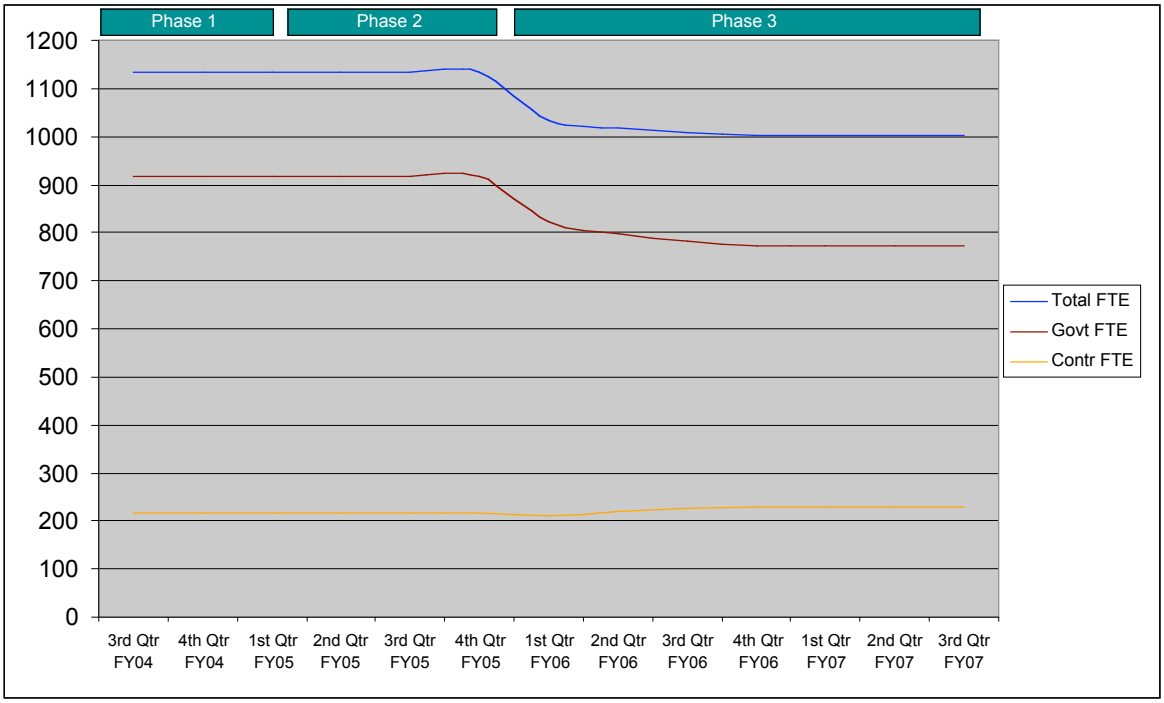


Exhibit 4-12 depicts the impact of staffing on each functional area.

Exhibit 4-12: Overall To-Be Staffing Model – By Function

Functional Area	Western Operations	Eastern Operations	Headquarters	Total FTEs	Total %
Acquisition					
Government FTE	34.0	59.0	18.0	111.0	11%
Contractor FTE	0	0	0	0	
Grants					
Government FTE	0	21.0	0	21.0	2%
Contractor FTE	0	0	0	0	
Finance					
Government FTE	44.2	70.4	105.0	219.6	24%
Contractor FTE	0	0	16.0	16.0	
Budget					
Government FTE	0	0	43.0	43.0	5%
Contractor FTE	0	0	3.5	3.5	
Workforce Management					
Government FTE	75.5	55.5	39.5	170.5	21%
Contractor FTE	0.6	3.9	40.4	45.0	
Information Technology					
Government FTE	12.0	36.0	11.0	59.0	11%
Contractor FTE	3.0	34.0	10.0	47.0	
Facilities					
Government FTE	26.8	38.4	38.4	103.6	22%
Contractor FTE	63.5	54.0	0.0	117.5	
Environmental / Logistics					
Government FTE	4.0	4.0	6.0	14.0	1%
Contractor FTE	0	0	0	0	
Global					
Government FTE	0	0	6.0	6.0	1%
Contractor FTE	0	0	0	0	
Other					
Government FTE	0	0	26.0	26.0	3%
Contractor FTE	0	0	0	0	
TOTAL Government FTE	**196.5**	**284.3**	**292.9**	**773.7**	**77%**
TOTAL Contractor FTE	**67.1**	**91.9**	**69.9**	**229.0**	**23%**
TOTAL ALL FTE	**263.7**	**376.2**	**362.8**	**1002.6**	**100%**

4.7 TRANSITION COSTS

The following table, Exhibit 4-13, summarizes all savings and costs associated with the recommendations. After accounting for more than $22.1 million, in both one-time and recurring transition costs. The transition costs shown below (see 'One-time and recurring costs' column) are shown by cost categories and represent a three-year total. Detailed recommendation-specific cost estimates, including the transition activities, are included in Section 13.

Exhibit 4-13: Transition Cost Summary Resulting from Recommendations Over Three Years

	Phase I	Phase II	Phase III	Total
Studies and Analysis	$ 3,417,293	$ 7,234,757	$ 2,121,450	$ 12,773,500
Program Management (includes 7 Govt / 1 Contractor FTEs)	$ 617,293	$ 1,204,157	$ 1,821,450	**$ 3,642,900**
Competitive Sourcing Assessment	$ -	$ 105,600	$ -	**$ 105,600**
Communications	$ 100,000	$ 200,000	$ 300,000	**$ 600,000**
Policies and Procedures Development	$ 50,000	$ 50,000	$ -	**$ 100,000**
Organizational Analysis and Redesign	$ 1,375,000	$ 2,025,000	$ -	**$ 3,400,000**
Process Analysis and Design	$ 1,175,000	$ 2,700,000	$ -	**$ 3,875,000**
IT Planning and Analysis	$ 100,000	$ 950,000	$ -	**$ 1,050,000**
IT Costs	$ -	$ 1,425,000	$ 1,975,000	$ 3,400,000
IT Hardware and Software (One-Time)	$ -	$ 850,000	$ 900,000	**$ 1,750,000**
IT Implementation (One-Time)	$ -	$ 575,000	$ 1,075,000	**$ 1,650,000**
Other Costs	$ 25,000	$ 360,000	$ 465,000	$ 850,000
Training Development	$ -	$ 50,000	$ -	**$ 50,000**
Training (Recurring)	$ -	$ 200,000	$ 300,000	**$ 500,000**
Travel (Recurring)	$ 25,000	$ 110,000	$ 165,000	**$ 300,000**
Staff-Related Costs	$ -	$ 3,057,742	$ 2,045,200	$ 5,102,941
Downsizing	$ -	$ 2,120,804	$ 1,385,306	**$ 3,506,110**
Restaffing (Relocations/Hires)	$ -	$ 936,938	$ 659,894	**$ 1,596,832**
Total	**$ 3,442,293**	**$ 12,077,499**	**$ 6,606,650**	**$ 22,126,441**

Note: Actual dollar amounts

Exhibit 4-14 represents those staff transition costs associated with downsizing or restaffing (e.g., relocations, hires, etc.). The costs for downsizing total $3.5 million and restaffing costs total $1.6 million across all three phases. Sixty-one percent of the staffing changes would occur toward the end of Phase II, and thirty-nine percent occurring throughout Phase III as the ASCs are consolidated and the To-Be organization is implemented.

Exhibit 4-14: Staff Transition Costs

	Phase I		Phase II		Phase III		Total	
	Downsizing	Restaffing	Downsizing	Restaffing	Downsizing	Restaffing	Downsizing	Restaffing
Acquisition	$ -	$ -	$ 286	$ 143	$ 286	$ 178	$ 571	$ 321
Grants	$ -	$ -	$ 14	$ 12	$ -	$ -	$ 14	$ 12
Finance	$ -	$ -	$ 371	$ 154	$ 404	$ 181	$ 775	$ 335
Budget	$ -	$ -	$ -	$ 24	$ -	$ -	$ -	$ 24
Workforce Mgmt	$ -	$ -	$ 234	$ 178	$ 363	$ 289	$ 597	$ 467
IT	$ -	$ -	$ 229	$ 24	$ 186	$ -	$ 414	$ 24
Env Compl	$ -	$ -	$ 71	$ 59	$ -	$ -	$ 71	$ 59
Facilities	$ -	$ -	$ 544	$ 343	$ 147	$ -	$ 691	$ 343
Global	$ -	$ -	$ 371	$ -	$ -	$ 12	$ 371	$ 12
Other	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ 2,121	$ 937	$ 1,385	$ 660	$ 3,506	$ 1,597

Note: Dollars are in thousands ($000s)

Annual operating costs for all identified FTEs in the proposed new model are $154,057,000. The net cost differential in annual operating costs between the two models is $23,005,000 after transfers. This represents a change of 13% on an annual basis after transfers.

Exhibit 4-15: Total Annual Operating Costs for As-Is

Summary *As-Is*	EASC		CASC		MASC		WASC		Wash DC		Headquarters		Total	
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost
Government Labor	71.9	$ 7,490	118.8	$ 11,748	111.5	$ 11,262	116.7	$ 12,085	231.4	$ 23,029	267.6	$ 27,691	917.9	$ 93,306
Contractor Labor	3.4	$ 381	7.6	$ 921	8.1	$ 948	46.2	$ 5,043	95.0	$ 8,742	57.4	$ 7,231	217.8	$ 23,265
Variable Overhead		$ 631		$ 805		$ 1,394		$ 371		$ 3,620		$ 4,068		$ 10,889
Fixed Overhead		$ 161		$ 217		$ 226		$ 3,453		$ 161		$ 45,384		$ 49,602
Total	75.4	$ 8,663	126.42	$ 13,691	119.6	$ 13,829	162.9	$ 20,952	326.3	$ 35,552	325.0	$ 84,375	1135.6	$ 177,062

Note: Dollars are in thousands ($000s)

Transfers consist of functions and staff (government and contractors) shifting to NOAA line offices. These include 10 FTEs from MASC Library transferring to main DOC, and 33.2 FTEs from CASC Facilities transferring to the NOAA line offices. These transferred costs include salary, benefits and variable overhead.

Exhibit 4-16: Total Annual Operating Costs for To-Be

Summary *To-Be*	Western Operations		Eastern Operations		Headquarters		Total		Net Cost Differential After Transfers *	Percent Change
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost		
Government Labor	196.5	$ 20,114	284.3	$ 28,643	292.9	$ 30,654	773.7	$ 79,411	$ 13,895	-14.9%
Contractor Labor	67.1	$ 6,858	91.9	$ 8,632	69.9	$ 8,643	229.0	$ 24,133	$ (868)	3.7%
Variable Overhead		$ 450		$ 431		$ 3,822		$ 4,704	$ 6,185	-56.8%
Fixed Overhead		$ 265		$ 161		$ 45,384		$ 45,810	$ 3,792	-7.6%
Total	263.7	$ 27,687	376.2	$ 37,867	362.8	$ 88,503	1002.6	$ 154,057	$ 23,005	-13.0%

Summary *To-Be*	Gross Cost Differential Before Transfers*	Transfers to NOAA	Net Cost Differential After Transfers*
Government Labor	$ 10,769	$ 3,125	$ 13,895
Contractor Labor	$ (1,286)	$ 419	$ (868)
Variable Overhead	$ 5,854	$ 331	$ 6,185
Fixed Overhead	$ 3,792	-	$ 3,792
Total	$ 19,129	$ 3,875	$ 23,005

Notes: Dollars are in thousands ($000s)
Gross cost differential before transfers: $19M is the actual finance and administrative services cost savings by implementing the To-Be model
Net cost differential after transfers: $23M is the total reduction in Operating Budget for finance and administrative services by implementing the To-Be Model
Transfers occur within Facilities/Logistics and Information Technology
Calculations assume current workload and exclude effort for transition costs

The chart below depicts the cash flow over three years by phase. The cumulative savings is based on the gross cost differential before transfers, which totals $52.2M (FY04 constant-year dollars). The break-even point is achieved at the end of Phase 2.

Exhibit 4-17: Cash Flow over Three Years by Phase

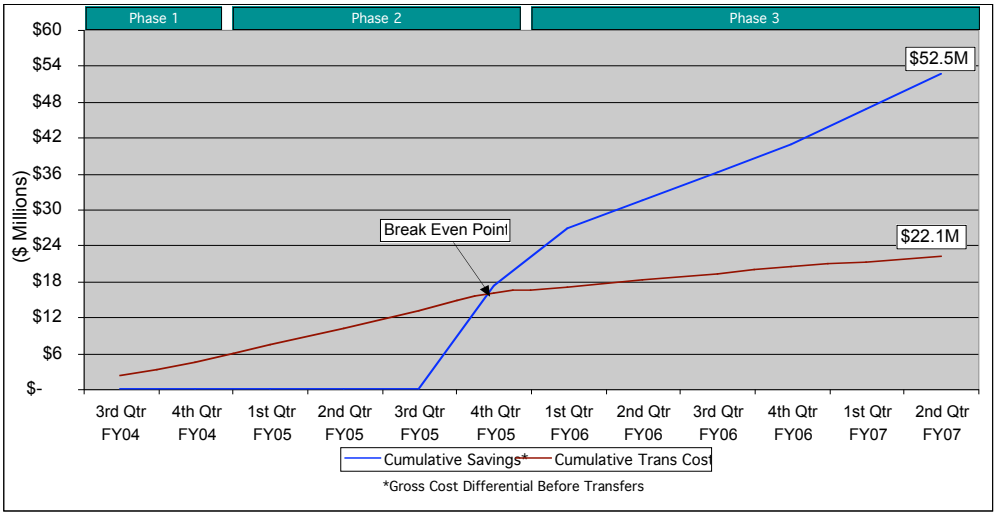
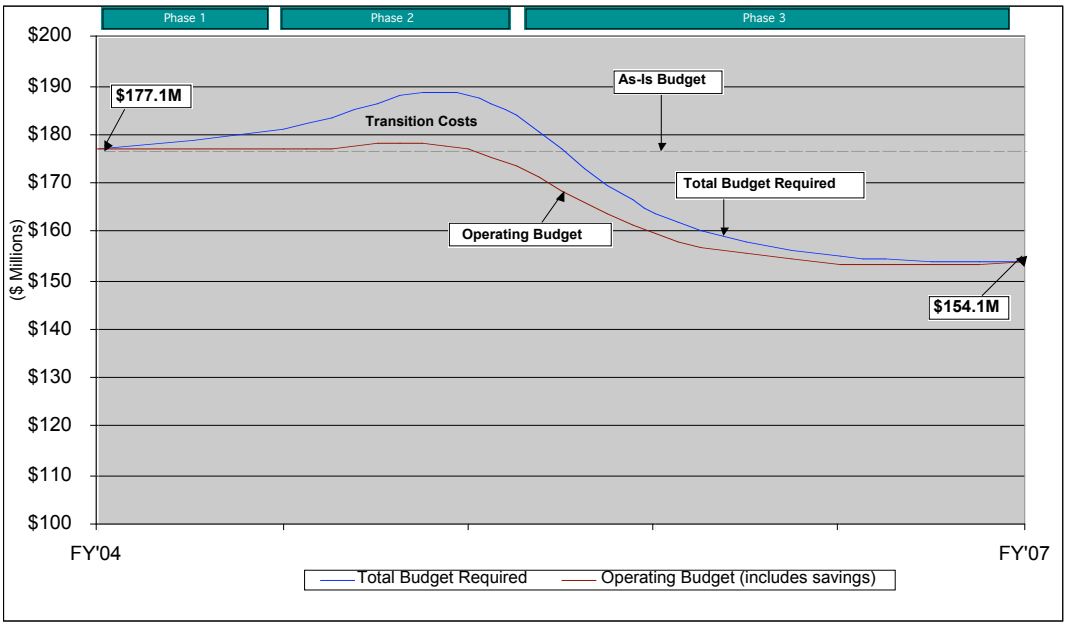


Exhibit 4-18 depicts the projected budget requirements for Finance and Administrative Services functions during the transition period, assuming current workloads. This bottom line is the NFA Operating Budget, starting at $177M minus the estimated savings per year. The top curve shows the adjusted Operating Budget plus the estimated transition costs per year. This top line represents how much appropriated funds NFA will need per year to reach the new To-Be model. Therefore, the area between the two curves shows estimated transition costs.

Exhibit 4-18: Operating Budget over Three Years by Phase



5. FINANCE SERVICES

This chapter summarizes our review of NOAA finance services. This includes the services provided, customers, current organization, staffing and costs, findings and conclusions regarding workload, productivity, customer satisfaction and management processes, recommendations for improvement, and projected To-Be staffing and cost levels.

5.1 OVERVIEW OF FINANCE SERVICES

Finance services are delivered by the NOAA Headquarters Finance Office and regional Administrative Support Centers (ASCs). The customer delivery model for the finance function is characterized by centralized policy formulation and guidance by the Finance Office and (regionally) decentralized customer interface and transaction processing at the ASCs/Finance Office.

5.1.1 Service Portfolio

The finance functional area covers the full range of financial support services expected of a Federal agency, to include both operational and Headquarters functions. Operational finance functions encompass processing invoice payments (commercial vendors, employee's travel, bills of lading), recording undelivered orders and accruals, performing billings and collections, managing reimbursable actions, and managing Imprest Funds. The Headquarters finance functions include management of policies, systems and procedures, and financial reporting.

Finance services are defined in the NOAA Office of Finance and Administration Catalog of Services (May 27, 2003) as follows:

- Invoice payment services;
- Automated invoice payment services;
- Travel administration services;
- PCS administration services;
- Reimbursable agreement services;
- Billings and collections services;
- Loan administration services;
- Imprest fund management services; and
- Funds management services

Funds management services are reviewed separately in Chapter 6 of this report.

5.1.2 Customers

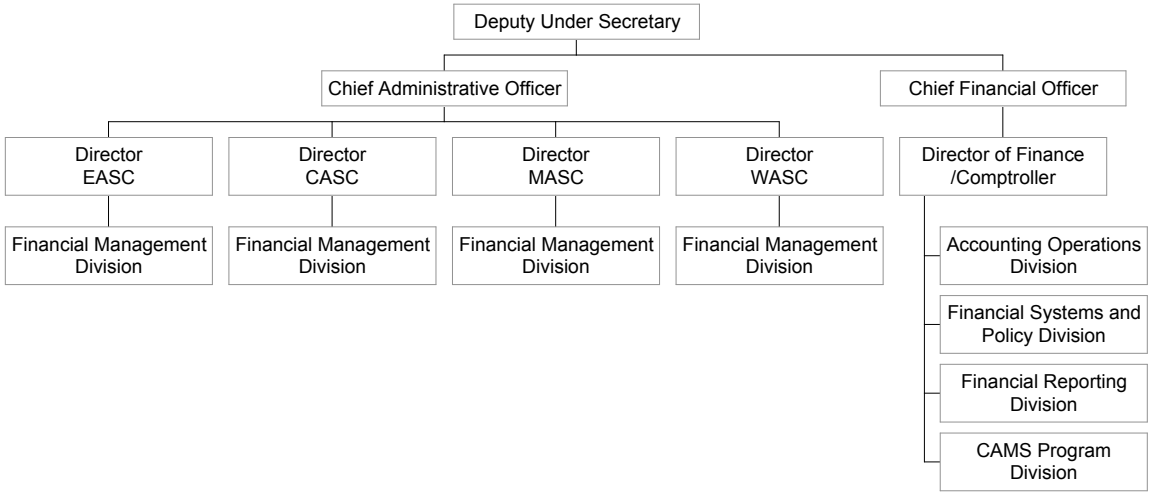
NOAA line and staff offices are the primary customers for Finance services. The only non-NOAA customer is the Department of Commerce's Bureau of Industry and Security (BIS). It is estimated that BIS comprises approximately 1% of the customer base for Finance services.

5.1.3 Organization

As shown in Exhibit 5-1, Finance services within NOAA are provided by five organizational units: the four ASCs and the Headquarters Finance Office. Each ASC has a Financial Management Division (FMD), whose chief reports to the ASC director. FMDs receive policy and technical guidance from the Director of Finance/Comptroller.

The Finance Office, headed by the Director of Finance/Comptroller, contains four divisions, as shown in the Exhibit.

Exhibit 5-1: As-Is Finance Organization



Note: This chart only displays the finance organizations. It does not show all the organizations that report to the ASC directors, the Chief Administrative Officer, the Chief Financial Officer, or the Deputy Under Secretary.

Operational finance services are provided by the four FMDs at the ASCs and by the Accounting Operations Division (AOD) at the Finance Office. The AOD acts as a "fifth ASC."

Headquarters functions focus primarily on policy development, financial reporting, and information systems support, and are provided by three divisions in the Finance Office: Financial Systems and Policy, Financial Reporting, and the CAMS Program.

5.1.4 Staffing and Costs

As shown in Exhibit 5-2, the 262.7 FTE currently support the Finance function. The associated unburdened costs are $22.9M.[3] The largest single component of this labor force is at Headquarters, where contractors are supporting the CAMS program. The current level of contractor FTEs that support the CAMS program has been significantly reduced from 2002, when the CAMS system was implemented.

Exhibit 5-2: Finance Services FTEs and Costs for As-Is

FINANCE SERVICES														
	EASC		CASC		MASC		WASC		WASH DC		HQ		TOTALS	
	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*
GOVT FTES	20	20.5	22.44	20.8	12.45	13	22.14	24.4	64	62	108.67	105	249.70	245.70
Govt Cost	$1,118.0	$1,146.7	$1,286.1	$1,316.1	$671.6	$743.6	$1,156.7	$1,267.9	$4,766.3	$4,981.7	$8,115.5	$8,436.7	$17,114..2	$17,892.6
Contractor FTEs	0	0	1	1	0	0	1	0	0	0	53	16	55	17
Contractor Cost	0	0	$15.6	$31.6	0	0	$34.1	0	0	0	$6,679.1	$5,103.5	$6,728.7	$5,135.1

Notes: Dollars are in thousands ($000s)
Costs are unburdened labor
**FY 2003 is adjusted data*

5.2 FINDINGS AND CONCLUSIONS

This section summarizes our findings and conclusions with respect to workload, productivity, customer service satisfaction, and management processes observed in the conduct of NOAA's finance services.

5.2.1 Workload and Productivity Analysis

Booz Allen conducted a workload analysis of Finance services at the four ASCs and the AOD, using ABC data for selected service processes, augmented by management and staff interviews and review of, policy and procedure documentation, operating reports and available workload-related data. The results of our workload analysis were initially summarized in Deliverable One: Workload Analysis issued in November 2003.

5.2.1.1 Services Selected for Detailed Analysis

Services were selected for analysis in order to support a comparison of productivity across the NOAA finance function. In order to focus this analysis, specific processes were selected from within each service area for this comparative analysis. These processes were selected to ensure that the majority of the operational workload was reviewed. Activities were selected from Finance services that comprise over 80% of the operational workload and are performed at all ASCs and AOD.

[3]Refer to Deliverable One: Workload Analysis issued on November 17, 2003 for a detailed analysis of the unburdened costs associated with Finance Services.

- Invoice Payment Services: The processes selected were: "Record Non-Travel Disbursements," "Record Undelivered Orders," and "Maintain System Files."
- Automated Invoice Payment Services: The process selected was "Process Interfaced Disbursements."
- Travel Administration Services: The process selected was "Record Employee Travel Disbursements."
- Financial Management Services: The process selected was "Adjust Accounting Transactions." This process is performed at all ASCs/AOD.

Our analysis examined both 2002 and 2003 transaction data and 2003 FTEs. 2003 transaction data for three services (Invoice Payments, Automated Invoice Payments, and Travel Administration) was made available, but there was concern by some ASCs that data for Automated Invoice Payments and Travel Administration was not accurate. Therefore, only the 2003 Invoice Payment data was used. In all other cases, 2002 transaction data was used. It would be preferable to use transactions and FTE data from the same year. However, based upon our discussions and field visits, it appears that the processing procedures have not significantly changed between 2002 and 2003, nor was there a significant reassignment of FTEs between processes. Therefore, potential errors introduced by this methodology would be consistent across all organizations and not affect internal comparisons.

5.2.1.2 Internal Benchmarking

Using the selected services, we compared processing productivity between service delivery locations, expressed in terms of transactions per FTE. This provided an internal performance benchmark. The comparison of internal data from across the ASCs/AOD provides an understanding of opportunities for improvement. These internal comparisons proved to be the best source of data for the development of recommendations for improvement.

Record Non-Travel Disbursements
Record non-travel disbursements is a process within the Invoice Payment Services that involves processing invoices (other than travel) for payment. In order to support comparisons of the performance of the ASCs/AOD (Wash DC) for this process, consistent units of measure were identified. For transaction volumes, the unit selected was the number of disbursement transactions; for FTEs, it was the number of personnel performing the activity; for cycle time, it was the number of work days from receipt of signed invoice to approval by the financial management division "certifying officer."

The rationale for the selection of these units of measure is that this information is available in the ABC data by ASC/AOD. The transaction data for this activity for each ASC/AOD is provided in Exhibit 5-3.

Exhibit 5-3: Record Non-Travel Disbursements Data

INVOICE PAYMENT SERVICES – RECORD NON TRAVEL DISBURESEMENTS						
Unit of Measure	EASC	CASC	MASC	WASC	WASH DC	AVERAGE
FTEs	6.87	8.27	6.94	11.25	18.99	10.54
Trans Vol	63,839	82,505	64,897	101,688	78,931	78,372
Cycle Time	N/A	3	2	1	2	2
Trans/FTE	9,292	9,976	9,351	9,039	4,156	8,363

Note: The FTE and transaction data is adjusted FY 2003 data

The data provided above indicates that the ASCs are fairly consistent in the ratio of transactions per FTE. AOD stands out as having a much lower transactions per FTE ratio. One reason for this may include the additional duties performed at AOD. The AOD certifies disbursements for all ASCs for transmission to the Treasury and subsequent payment. This requirement is estimated at one FTE. If this adjustment is made, the AOD productivity is 4,387 transactions per FTE, or still 48% below the average for the ASCs. Cycle times seem reasonably consistent except for CASC, which included in their cycle time a next-day verification of disbursement vouchers. This step was not included by other ASCs in their calculations of cycle time.

Record Undelivered Orders

Record undelivered orders is a process within Invoice Payment Services that involves recording procurement documents received from CSTARS into CAMS. In order to support comparisons of the performance of the ASCs/AOD (Wash DC) for this process, consistent units of measure were identified. For transaction volumes, the unit selected was the number of undelivered orders recorded; for FTEs, it was the number of personnel performing the activity; for cycle time, it was the number of work days from receipt of undelivered order to approval by the financial management division "certifying officer." The rationale for the selection of these units of measure is that this information is available in the ABC data by ASC/AOD. The transaction data for this activity for each ASC/AOD is provided in Exhibit 5-4.

Exhibit 5-4: Record Undelivered Orders Data

INVOICE PAYMENT SERVICES – RECORD UNDELIVERED ORDERS						
Unit of Measure	EASC	CASC	MASC	WASC	WASH DC	AVERAGE
FTEs	0.73	2.86	0.5	1.5	5.16	2.15
Trans Vol	5,997	8,114	6,314	11,641	12,450	8,903
Cycle Time	2	2	1	2	2	1.80
Trans/FTE	8,215	2,837	12,628	7,761	2,413	6,771

Note: The FTE and transaction data is adjusted FY 2003 data

The data provided indicates that there are significant variations between ASCs/AOD in transactions per FTE. With productivity measured as transactions per FTE, MASC appears to be most efficient in recording undelivered orders, with over an 86% margin

over the average. AOD has the lowest productivity at 64% below average. The cycle times are relatively consistent across locations.

Maintain System Files

Maintain system files involves the activities of updating the vendor file to support the processing of disbursements and undelivered orders. In order to support comparisons of the performance of the ASCs/AOD (Wash DC) for this activity, consistent units of measure were identified. For transaction volumes, the unit selected was the number of transactions; for FTEs, it was the number of personnel performing the activity; for cycle time, it was the number of workdays from identification of system maintenance requirement to input to vendor file. The rationale for the selection of these units of measure is that this information is available in the ABC data by ASC/AOD. The transaction data for this activity for each ASC/AOD is provided in Exhibit 5-5.

Exhibit 5-5: Maintain System Files Data

INVOICE PAYMENT SERVICES – MAINTAIN SYSTEM FILES						
Unit of Measure	EASC	CASC	MASC	WASC	WASH DC	AVERAGE
FTEs	0.59	1.13	1.55	0.69	0.39	0.87
Trans Vol	10,236	16,247	10,046	16,033	24,461	15,405
Cycle Time	N/A	N/A	N/A	N/A	1.5	N/A
Trans/FTE	17,349	14,378	6,481	23,236	62,721	24,833

Note: The FTE and transaction data is adjusted FY 2003 data

Exhibit 5-5 indicates that there are significant variations between ASCs/AOD in transactions per FTE. The data is centered on three points, with a significantly higher point and a significantly lower point. In this set of data, AOD appears to be the most efficient in maintaining system files, with over a 150% margin over the average. MASC has a ranking of 74% below average.

Automated Invoice Payment Services

Automated invoice payments involve the activities of reviewing and processing automated payment transactions, including bank card transactions, convenience checks, Government Transportation Accounts, Motor Pool accounts, and FEDEX billings. In order to support comparisons of the performance of the ASCs/AOD (Wash DC) for this activity, consistent units of measure were identified. For transaction volumes, the unit selected was the number of transactions; for FTEs, it was the number of personnel performing the activity; for cycle time, it was the number of workdays from receipt of transaction/download to approval by financial management division "certifying officer." The rationale for the selection of these units of measure is that this information is available in the ABC data by ASC/AOD. The transaction data for this activity for each ASC/AOD is provided in Exhibit 5-6.

Exhibit 5-6: Automated Invoice Payment Services Data

AUTOMATED INVOICE PAYMENT SERVICES – PROCESS INTERFACED DISBURSEMENTS						
Unit of Measure	EASC	CASC	MASC	WASC	WASH DC	AVERAGE
FTEs	0.99	0.75	0.38	0.56	4.61	1.46
Trans Vol	18,880	26,658	13,138	39,363	64,601	33,528
Cycle Time	2	1	2	1	1	1.40
Trans/FTE	19,071	35,544	34,574	70,291	14,013	34,699

Note: The FTE and transaction data is adjusted FY 2003 data

Exhibit 5-6 indicates significant variations between ASCs/AOD in transactions per FTE. Using transaction per FTE to assess productivity, WASC appears to be most efficient in processing interfaced disbursements, with more than a 100% margin over average. AOD appears to be the least efficient, at 60% below the average.

The rather small number of FTEs involved may be causing this wide fluctuation. This does not appear to be a major duty for any one individual but rather a duty performed for a small amount of time by several (for the ASCs providing detailed information, the records show that from five to seven staff members report against this activity). Therefore, it would seem possible for inaccuracies to be posted to this activity.

Travel Administration Services

Travel administration services involve the activities of reviewing, approving, entering, and processing employee travel vouchers. There are several activities in this service. In order to support comparisons of the performance of the ASCs in this service area, the activity of recording employee travel disbursements was selected.

In order to support comparisons of the performance of the ASCs/AOD (Wash DC) for this process, consistent units of measure were identified. For transaction volumes, the unit selected was the number of transactions; for FTEs, it was the number of personnel performing the activity; for cycle time, it was the number of work days from receipt of approved voucher to approval by financial management division "certifying officer." The rationale for the selection of these units of measure is that this information is available in the ABC data by ASC/AOD. The transaction data for this activity for each ASC/AOD is provided in Exhibit 5-7.

Exhibit 5-7: Record Employee Travel Disbursements

TRAVEL ADMINISTRATION SERVICES – RECORD EMPLOYEE TRAVEL DISBURSEMENTS						
Unit of Measure	EASC	CASC	MASC	WASC	WASH DC	AVERAGE
FTEs	2.95	1.57	1.64	3.74	4.45	3.27
Trans Vol	8,934	10,268	7,680	17,756	16,890	12,305
Cycle Time	2	3	2	3	2	2.40
Trans/FTE	3,028	6,540	4,683	4,748	3,796	4,559

Note: The FTE and transaction data is adjusted FY 2003 data

The data provided in the Exhibit above indicates a rather uniform productivity among four locations with CASC 43% above average. Cycle times are relatively consistent throughout the ASCs/AOD.

Under a pilot program, EASC uses an abbreviated process for travel vouchers that eliminate submission of the complete voucher and supporting documentation. This eliminates the detailed review of many of the vouchers. The review of selected vouchers is still conducted. Although not all transactions within this category are covered by this pilot program, it would be expected that it would result in some improvement by faster processing and an increased transactions per FTE.

Financial Management

Financial Management is not a service but a cost object for purposes of the ABC study. There is one activity in this area that can support a comparison between organizations. In order to support comparisons of the performance of the ASCs/AOD (Wash DC) for this activity, consistent units of measure were identified. For transaction volumes, the unit selected was the number of transactions; for FTEs, it was the number of personnel performing the activity; for cycle time, it was the number of workdays from receipt of adjustment request to processing. The rationale for the selection of these units of measure is that this information is available in the ABC data by ASC/AOD. The transaction data for this activity for each ASC/AOD is provided in Exhibit 5-8.

Exhibit 5-8: Adjust Accounting Transactions

ADJUST ACCOUNTING TRANSACTIONS						
Unit of Measure	EASC	CASC	MASC	WASC	WASH DC	AVERAGE
FTEs	1.63	0.94	0.58	0.80	6.57	2.10
Trans Vol	107,886	143,792	107,075	186,481	197,333	148,513
Cycle Time	5	3	3	3	2	3.20
Trans/FTE	66,188	152,970	184,612	233,101	30,035	133,381

Note: The FTE and transaction data is adjusted FY 2003 data
Cycle times are in business days

Exhibit 5-8 indicates that there are significant variations between ASCs/AOD in transactions per FTE. The data indicates that WASC appears to be the most efficient in processing adjustments, with a processing productivity of 75% over the average. AOD has the lowest ranking of 77% below average.

5.2.1.3 External Benchmarking

We also used the selected processes to compare NOAA's productivity with other non-NOAA organizations, as external benchmarks. The Benchmarking Analysis was designed to provide a picture of workload and productivity in other Federal agencies that could be used to shed light on current NOAA performance. As initially reported in Interim Deliverable Two: Benchmarking Analysis, benchmarking partners provided data points that ranged significantly above and below NOAA's performance for

selected processes. These variations show that there is a broad range of performance in the Federal government among agencies, often based upon the extent to which automation has been incorporated into the process under review.

Booz Allen used performance data from previous client work to develop metrics to monitor and assess financial performance. These benchmarking partners are identified as Benchmarking Partner 1 (BP1), Benchmarking Partner 2 (BP2), and Benchmarking Partner 3 (BP3). The benchmarking partners identified in this section are unique to this function and do not correspond with other sections of this document.

Exhibit 5-9: Financial Services Benchmark Comparative Analysis

FINANCIAL SERVICES								
Unit of Measure	**EASC**	**CASC**	**MASC**	**WASC**	**WASH DC**	**BP1**	**BP2**	**BP3**
Record Non-Travel Disbursements								
Transactions Per FTE	9,292	9,976	9,351	9,039	4,156	60,000	1,560	Data Not Available
Record Employee Travel Disbursements								
Transactions Per FTE	3,028	6,540	4,683	4,748	3,796	HQ: 7,200	Lcl Tvl: 588	GTA**: 168
						TAPU*: 1,200	TDY: 1,140	TDY: 1,776

*Notes: *Travel Advance and Payment Unit (TAPU)*
***Government Travel Account (GTA)*

Performance data indicates that among ASCs, CASC processes the greatest number of Non-Travel Disbursements per FTE. It also indicates that even CASC's high rate falls far short of the processing rate attributed to BP1's fully automated process, but significantly exceeds the BP2's manual procedures. In fact, all ASCs significantly outperformed BP2 in this area.

For Employee Travel Disbursements, the analysis indicates a significant disparity among ASCs. When compared with rates reported by the benchmarking partners, the ASCs performance exceeded all but BP1's high speed, fully automated process.

5.2.2 Customer Service Satisfaction Analysis

Our analysis of customer service satisfaction for Finance services examined both satisfaction levels reported by finance customers and average process cycle times for selected Finance services processes. As part of the data collection interviews, Booz Allen conducted a high-level survey to assess overall customer satisfaction with finance services. Customer contacts involved a combination of personal interviews, telephone interviews, and e-mail surveys. NOAA management provided us with the names of

these customers. The rating scale for Customer Satisfaction is based on a 1-5 Likert scale[4]. The customer satisfaction results, reported by average rating scores, reflect the data collected from both surveys and are documented as "internal" customers in Exhibit 5-10.

Exhibit 5-10: Finance Customer Satisfaction Survey Results

Finance	EASC	CASC	MASC	WASC	WASH DC/HQ	TOTAL
Internal Customers	3.4	4.2	4.4	3.7	3.5	3.8
External Customers		3.5		5.0	5.0	4.5
All Customers	3.4	4.1	4.4	3.8	3.5	3.8

As Exhibit 5-10 indicates, differentials exist in satisfaction levels with Finance services among service delivery locations. MASC and CASC received high ratings from internal customers. AOD and WASC received high rankings from external customers. The rating for HQ refers to support provided by the operations group at Headquarters.

A frequent theme in the customer comments was the need for more training for customers. This issue was also identified by service delivery units during our field visits. Reported lack of resources during 2003 severely restricted the ability to provide customer training.

Cycle times are presented for selected activities in Exhibit 5-11. These times reflect the amount of time that the transaction is the responsibility of the ASC/AOD (Wash DC); generally, this is from receipt of the document through approval or recording into CAMS. As such, these cycle times do not include the full life cycle of the transaction. Total cycle times would also include the time from origination of the transaction (within a line office) to receipt by the ASC/AOD, and the time after the ASC/AOD processed the transaction until a payment is transmitted through the Department of the Treasury to the payee.

A review of these cycle times shows that there is a general consistency between locations for each activity. Cycle times are presented in terms of business days and were estimated by supervisory personnel within the ASC/AOD. Often, supervisors made estimates of ranges. In such cases, the midpoint was used. These are estimates of average times and are not substantiated by records or logs.

[4] Rating Scale for Customer Satisfaction Survey:
1. Services **seldom** meets your needs in a timely manner and are free from errors
2. Services **sometimes** meet your needs in a timely manner and are free from errors
3. Services **often** meet your needs in a timely manner and are free from errors
4. Services **usually** meet your needs in a timely manner and are free from errors
5. Services **always** meet your needs in a timely manner and are free from errors

Exhibit 5-11: Cycle Times – Selected Finance Activities

CYCLE TIMES – SELECTED ACTIVITIES						
Activity	EASC	CASC	MASC	WASC	WASH DC	AVE.
Record Non-Travel Disbursements	N/A	3	2	1	2	2
Record Undelivered Orders	2	2	1	2	2	1.80
Maintain System Files	N/A	N/A	N/A	N/A	1.5	N/A
Process Interfaced Disbursements	2	1	2	1	1	1.40
Record Employee Travel Disbursements	2	3	2	3	2	2.40
Adjust Accounting Transactions	5	3	3	3	2	3.20

Note: Cycle times are in business days

The Finance services appear to be providing the proper mix of services. Our field visits did not identify any services that were lacking, not did customers comment that there were missing services.

There is not a universal maintenance of records either of errors made in processing documents or of workload accomplished by each staff member. Therefore, it was not possible to calculate the error rates for each process or to verify the number of document transactions by employee. Additionally, it was not possible to verify the cycle times for transactions, since employees do not generally maintain logs of work assignments.

5.2.3 Management Process Analysis

Planning and Budgeting

Planning and budgeting for the Finance function is currently the responsibility of the ASC directors reporting through the Chief Administrative Officer. ASC directors provide a consolidated budget estimate for all business functions, including finance services within the ASC, to the CAO. Budget execution follows the same path; funds are allocated through the CAO to the ASC directors.

In the proposed To-Be organization, the Director of Finance/Comptroller, as the business line manager, would plan and budget for all finance activities. Guidance would be received from the Chief Financial Officer (in the role as supervisor of the Director) and the Management Support Office (in the role of budget office for the Assistant Administrator for Management). This change will ensure that the budget for finance services is clearly displayed in its entirety as a separate item, and allow the Director of Finance to deploy appropriate functional resources across service locations.

Workload Forecasting

The workload for an ASC/AOD is dependent upon the customer initiating actions. This is an obvious observation, but it causes unpredictability in the workload. Changes to customer programs and funding levels result in increases or decreases to the workload at the ASC/AOD. This is a major area of concern to the ASC directors and supervisors since it is beyond their control and they are forced into a reactive mode.

We observed little effort to project future transaction workloads as a basis for budget and resource management decision-making.

ASCs/AOD report that they do not generally experience backlogs on processing documents, although this could vary especially at year-end. Invoice payments is the only finance service for which both 2002 and 2003 transaction data is available. It comprises 62% of the operational services being studied in this report and therefore may be judged as a good indication for the entire finance services. The number of transactions increased by 7% between 2002 and 2003. The customers with the largest increases were NESDIS (36%) and OMAO (33%).

Policy Development and Documentation

The Finance Office provides overall financial policy guidance for NOAA. The Finance Office staff, in consultation with the ASCs, develops this guidance. The Finance Office promulgates this guidance throughout NOAA, and the ASCs/AOD use that guidance to manage the delivery of finance services to the line offices. The ASCs report that they do not supplement NOAA guidance because the guidance is considered adequate and complete. The ASCs often retransmit the guidance to their line office contacts to ensure that the guidance has been received.

Exhibit 5-12: As-Is Operations vs. Policy/Oversight Breakdown

	EASC	CASC	MASC	WASC	WASH DC	HQ	TOTAL FTEs	TOTAL PERCENTAGE
FINANCE	20.5	21.8	13.0	24.4	62.0	121.0	**262.7**	**100.0%**
OPERATIONS	20.5	21.8	13.0	24.4	62.0	110.0	**251.7**	**95.8%**
POLICY / OVERSIGHT	0.0	0.0	0.0	0.0	0.0	11.0	**11.0**	**4.2%**

Note: FY 2003 Total FTEs associated with operations and policy/oversight

Neither our field visits to the ASCs/AOD nor customer interviews indicated a need for additional finance policy. The number of staff devoted to policy formulation appear adequate, and we have not recommended additional staffing. The challenge is to keep those policies up to date, a project that is currently underway with many policies being updated.

Process Design and Technology Utilization

In reviewing the activities selected for detailed analysis, it appeared that the processes were fairly consistent between locations. This is expected since the use of CAMS requires that all locations follow standard procedures. During the CAM implementation there was an ongoing process to reengineer processes to meet reduced staffing levels. During FY 2002, NOAA successfully implemented CAMS - a new core financial system – throughout the agency. CAMS became the system of record in FY 2003. The most recent financial audit did not identify any information technology material weaknesses in CAMS.

NOAA has identified additional enhancements to CAMS. One of those enhancements is to create an interface between CSTARS and CAMS to eliminate duplicative data

entry. In Section 5.3.1 of this report, there is a recommendation that this interface be implemented immediately. Funding for this initiative was included in the FY 2005 NOAA budget request, but not included in the OMB pass back.

The Finance Office currently provides automation technical support for the CAMS project in the CAMS Program Division. A recommendation under the Information Technology Services section of this report recommends transferring all technical support to the Office of Director of Information Technology (Recommendation IT.1). However, it is recommended that this transfer not occur until the CAMS project enters a maintenance phase to avoid making major organizational changes during the latter phases of the project.

Staff Training and Organizational Development

Staff training was severely hampered in FY 2003 by the lack of training funds. All locations did receive training on CAMS, but the universal requirement is for additional, in-depth follow-on training. Staff and supervisors report that they have reached an understanding of how to process transactions into CAMS, but that they do not have an understanding of how the transactions are being processed within CAMS. This is the next level of training that needs to be accomplished, and training and travel funding is required to support that training.

Performance Measurement, Reporting, and Accountability

NOAA identified organizational performance measures in the form of draft Service Level Agreements (SLAs) in May 2003. These are specifically identified by Finance Service and appear appropriate for these services. These draft SLAs have not yet been implemented and performance against these metrics was not available.

Exhibit 5-13: Finance Draft Service Level Agreements

Services	Performance Measures
Invoice Payment	90 % of invoices paid without interest in accordance with Prompt Payment Act
Automated Invoice Payment	95 % of invoices paid without interest in accordance with Prompt Payment Act
Travel Administration	95 % of payments processed for payment by Treasury within 7 calendar days from receipt of correct and approved travel voucher (hard or fax copy)
PCS Administration	95 % of payments processed for payment by Treasury within 14 calendar days from receipt of correct and approved travel voucher
Billings and Collections	90% of checks applied within 14 calendar days (from receipt of the check to application of the funds)
Loan Administration	95% of loans disbursed within 2 work days (from receipt of proper LO documents (loan request form and vendor profile data)
Imprest Fund Management	95% of replenishments processed within 7 calendar days (from receipt of request to reimbursement)

The performance standards proposed under the draft Service Level Agreements address the performance of the financial management organization. Subsequently, a

link must be developed that translates those organizational goals into individual staff member performance objectives. Establishing performance objectives at the employee level will enable supervisors to evaluate the performance of their employees and identify the need for corrective training. This has been described as providing a "clear linkage … between individual performance and organizational success."[5]

Performance Analysis and Improvement
The current configuration of Finance services means that five managers are responsible for analyzing financial performance and then taking action to make improvements. Customer satisfaction surveys are performed at the ASC level, with each ASC determining the frequency and format for these surveys, and then being responsible for taking action to improve any identified weaknesses.

As mentioned earlier in this report, there is not a comprehensive record either of errors made in processing documents or of workload accomplished by each staff member. Implementing a structured mechanism would allow for systematically analyzing performance variations and formulating performance initiatives.

5.3 RECOMMENDATIONS AND IMPLICATIONS

5.3.1 Recommendations

RECOMMENDATION FS.1: Consolidate Financial Operations into two support groups under the direct control of the Director of Finance/Comptroller

The current structure contains five field finance operations, including the financial management divisions at the four Administrative Support Centers and the Accounting Operations Division of the Headquarters Finance Office. This recommendation would consolidate those five locations into two finance operations, one in the west and one in the east. Both operations would report directly to the Director of Finance/Comptroller Office.

The five current divisions service both co-located and distant customers, indicating that there is no requirement for proximity to the customer. There are several advantages of consolidation from five to two locations. These include: economies of scale that can be addressed in the recommended activity process improvements; a somewhat reduced requirement for management positions; enhanced opportunities for employee advancement through access to the more diverse positions that are available in a larger office; and a greater ability to balance the workload and absorb cycles in customer workload.

[5] *General Accounting Office. Results-Oriented Cultures, March 2003*

Although best practices suggest consolidating into just one center, retaining two locations avoids a single point of failure and provides a continuity of operations alternative if one location is unable to operate for a period of time. The proposed staffing model assumes an even split of processing workload between the two locations. Training for customers would be coordinated by the Finance Office and would be provided to all customers within a geographical area. This would provide for the maximum benefit in using training resources.

Customers would be assigned to the new locations on a regional basis, to support "one-stop shopping" for line office chief financial officers and administrative officers. This basis would be determined by discussions between the Director of Finance/Comptroller and the line offices.

Currently the field finance operations report operationally to the ASC director and technically to the Director of Finance/Comptroller. Service delivery does not require this split chain of command. Under the proposed organization, the technical and operational chains of command would be combined into one. In addition, the Director would have technical authority and responsibility for the staff performing finance functions in the line offices. This is important to ensure consistency in adherence to policy and to implement process-streamlining options where processes cross-organizational boundaries.

As five divisions are consolidated into two divisions, there would be a reduced need for management positions (e.g., division and branch chiefs). However, the current level of effort allocation described by the ABC data collected in support of the Workload Analysis indicates that current management charges most time to activities that have been examined elsewhere. Therefore, most of their time has already been reduced in separate reduction. Based upon the available data, it is determined that the amount of time allocated to administrative duties (and not to workload activities) is 2.0 FTE. This is based upon ABC data (for the two ASCs that reported such information) that shows that the current time allocation for the division chiefs average 0.7 FTE on activities not associated with the processing of transactions (activities A17 through A30).

RECOMMENDATION FS.2: Assess and redesign the activity of recording non-travel disbursements

The recording of non-travel disbursements is a process currently performed at all four ASCs and the AOD. Under the proposed reorganization, this process would be performed by both Eastern and Western Operations. Currently, processing efficiency among current locations varies, ranging from 4,156 to 9,976 transactions per FTE. This wide variation of performance across locations provides a significant opportunity for improvement.

To attain standard across locations, a business process redesign (BPR) effort is recommended. The BPR effort will provide the vehicle for standardizing the entire

workload and identifying and incorporating potential additional process improvements. This effort will incorporate the draft SLA of 90% of invoices paid without interest in accordance with Prompt Payment Act.

The benefit of this recommendation is an estimated total reduction of 10.7 FTE. An analysis of the processing efficiencies of the four ASCs shows only a 10% variation. Therefore, the average of these four locations (9,415 transactions/FTE) is used as a standard for the entire workload. Using the adjusted data from the Workload Analysis Deliverable, we know that a total of 391,860 transactions are currently processed by 52.3 FTE. By standardizing this activity at the average efficiency factor of 9,415 transactions per FTE, a new allowance of 41.6 FTE is supported for a reduction of 10.7 FTE from the current 52.3 FTE.

RECOMMENDATION FS.3: Assess and redesign the activity of recording undelivered orders

Recording undelivered orders is an activity currently performed at all four ASCs and the AOD. Under the proposed reorganization, it would be performed by both Eastern and Western Operations groups. As discussed in the Workload Analysis, there is a variation in the processing efficiency among current locations that ranges from 2,413 to 12,628 transactions per FTE. This wide variation of performance across locations provides a significant opportunity for improvement if the organization standardizes work performance at the most efficient level. To support this recommendation, a business process redesign (BPR) effort is necessary. The BPR effort will provide a vehicle for achieving the standardization of the entire workload at the most efficient level.

The first step is to standardize the activity by applying the most efficient current processing model to the entire workload. It is recommended that a target processing efficiency of 75% of that most efficient standard be applied to the entire NOAA workload. This target reflects the variations between locations and the mix of document types that are processed. Applying this standard within a BPR effort appears to be a reasonable, achievable target.

Based on the data from the Workload Analysis, a total of 44,516 transactions are currently processed by 10.8 FTE. The most efficient current effort is 12,628 transactions per FTE. Applying 75% to this results in a new standard of 9,471 transactions/FTE. Applying that to the entire workload results in a total required workforce of 4.7 FTE. This is a reduction of 6.0 from the current workforce.

RECOMMENDATION FS.4: Assess and redesign the activity of processing interfaced disbursements

Processing interfaced disbursements is an activity currently performed at all four ASCs and the AOD. Under the proposed reorganization, it would be performed by both

Eastern and Western Operations. As described in the Workload Analysis, there is a variation in the processing efficiency among current locations, ranging from 14,013 to 70,291 transactions per FTE. This wide variation of performance across locations provides a significant opportunity for improvement if work performance is standardized at the most efficient level. In addition, the potential exists to streamline activity performance. To support both of these opportunities, a business process redesign (BPR) effort is necessary. The BPR effort will provide the vehicle for achieving the standardization of the entire workload at the most efficient level and identifying and incorporating other process improvements. This effort will incorporate the draft SLA of 95% of invoices paid without interest in accordance with Prompt Payment Act.

The first step is to standardize the activity by applying the most efficient current processing model to the entire workload. It is recommended that a target processing efficiency of 75% of that most efficient standard be applied to the entire NOAA workload. This target reflects the variations between locations and the mix of document types that are processed. Applying this standard within a BPR effort appears to be a reasonable, achievable target.

Based on the data from the Workload Analysis, a total of 162,640 transactions are currently processed by 7.3 FTE. The most efficient current effort is 70,291 transactions per FTE. Applying 75% to this results in a new standard of 52,718 transactions/FTE. Applying that to the entire workload results in a total required workforce of 3.1 FTE. This is a reduction of 4.2 from the current workforce.

RECOMMENDATION FS.5: Assess and redesign the process of recording employee travel disbursements

Recording employee travel disbursements is an activity currently performed at all four ASCs and the AOD. Under the proposed reorganization, it would be performed at both Eastern and Western Operations groups. Please note that data used in this deliverable reflects a change to the data displayed in the Workload Analysis. Using the updated data, there is a variation in processing efficiency among current locations that ranges from 3,028 to 6,540 transactions per FTE. This wide variation in performance across locations provides a significant opportunity for improvement if work performance is standardized at the most efficient level. In addition, the potential exists to streamline the activity. To incorporate both of these opportunities, a business process redesign (BPR) effort is necessary. The BPR effort will provide the vehicle for achieving the standardization of the entire workload at the most efficient level and identifying and incorporating other process improvements. This effort will incorporate both the draft SLA of 95% of payments processed for payment by Treasury within seven calendar days from receipt of correct and approved travel voucher (hard or fax copy) and the lessons of the pilot travel processing procedures used at EASC.

The first step is to standardize the activity by applying the most efficient current processing model to the entire workload. It is recommended that a target processing

efficiency of 75% of that most efficient standard be applied to the entire NOAA workload. This target reflects the variations between locations and the mix of document types that are processed. Applying this standard within a BPR effort appears to be a reasonable, achievable target.

Based on the data from the Workload Analysis, a total of 61,528 transactions are currently processed by 14.4 FTE. The most efficient current effort is 6,450 transactions per FTE. Applying 75% to this results in a new standard of 4,905 transactions/FTE. Applying that to the entire workload results in a total required workforce of 12.5 FTE. This is a reduction of 1.8 from the current workforce.

RECOMMENDATION FS.6: Implement the CSTARS/CAMS interface

The CSTARS interface implementation is a scheduled CAMS project. The current procedure is to receive contracts and purchase orders from the acquisition management divisions and then to enter that information into CAMS. While information is previously entered into CSTARS, the lack of an automated interface makes it necessary to rekey data into CAMS. Providing an automated interface would eliminate this duplicate data entry, saving time and eliminating the introduction of errors.

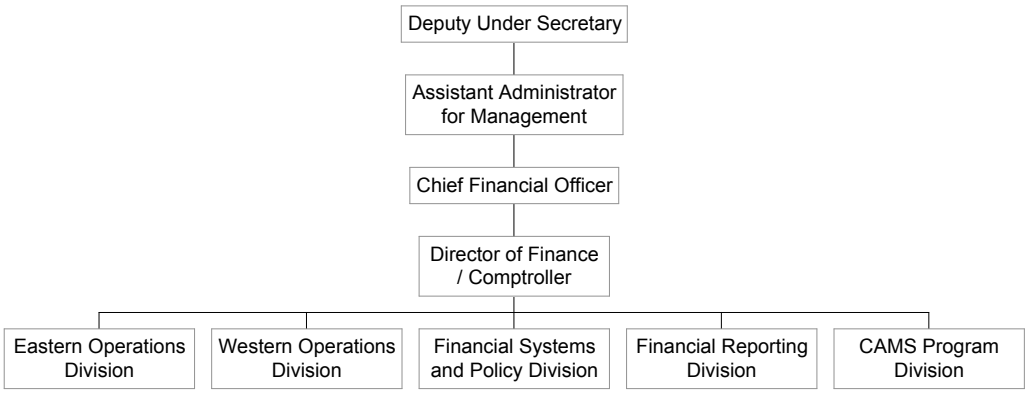
This recommendation would eliminate significant portions of the activity of processing of undelivered orders. That activity is currently supported by 10.8 FTE. As a result of the opportunity to assess and redesign the processing of undelivered orders discussed in a previous section of the report, this had been reduced to 4.7 FTE. It is recognized that not all the documents processed in this activity would be covered by the new interface. Therefore, this recommendation would reduce by 50% , a reduction of 2.4 FTE.

5.3.2 Target Organization

The proposed new staffing model consolidates the workload of the five processing centers (EASC, CASC, MASC, WASC, and Wash DC) into two locations – Eastern Operations and Western Operations. Both locations would report directly to the Director of the Finance/Comptroller.

The new staffing model does not recommend any changes to the current alignment of Headquarters functions with the Financial Systems and Policy Division, the Financial Reporting Division, and the CAMS Program Division. These three divisions would continue to report directly to the Director. The Director of the Finance/Comptroller would then serve as the business line manager for finance services.

Exhibit 5-14: To-Be Finance Organization



Note: This chart only displays the finance organizations. It does not depict all the organizations that report to the Chief Financial Officer, the Assistant Administrator for Management, or the Deputy Under Secretary.

It would be possible to combine all transaction processing into one center. As described in the new concept of operations, our approach does not include consolidating all operations in one place. The reasons for proposing a two-location approach include the need to provide for continuity of operations (avoiding a single point of failure) and the desire to provide responsive customer service for customers located in multiple time zones. Customers would be assigned to the new locations on a regional basis, to support "one-stop shopping" for line office chief financial officers and administrative officers. This basis would be determined by discussions between the Director of Finance/Comptroller and the line offices. Currently, line office regions receive support from a single location, but a single line office may receive support from multiple locations.

5.3.3 As-Is and To-Be Comparison of Staff and Costs

As displayed in Exhibits 5-15 and 5-16, there is a difference of 27.1 government FTEs between the current and proposed models for Finance services. This represents a reduction of 11% for government employees.

This reduction is a result of the six recommendations that are detailed in Section 5.3 of this report. These opportunities include reorganization of service delivery and responsibilities achieved by consolidation of centers, process standardization and improvements for four major activities, and implementation of automation change.

Exhibit 5-15: Total Finance Annual Operating Costs for To-Be

Finance *As-Is*	EASC		CASC		MASC		WASC		Wash DC		Headquarters		Total	
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost
Government Labor	20.5	$ 1,901	20.8	$ 1,928	13.0	$ 1,205	24.4	$ 2,262	62.0	$ 5,748	105.0	$ 9,735	245.7	$ 22,779
Contractor Labor	0.0	$ -	1.0	$ 122	0.0	$ -	0.0	$ -	0.0	$ -	16.0	$ 1,952	17.0	$ 2,074
Variable Overhead		$ 12		$ 21		$ 16		$ 14		$ 33		$ 56		$ 151
Fixed Overhead		$ 161		$ 170		$ 163		$ 161		$ 161		$ 24		$ 840
Total	20.5	$ 2,073	21.8	$ 2,241	13.0	$ 1,385	24.4	$ 2,437	62.0	$ 5,942	121.0	$ 11,766	262.7	$ 25,844

Note: Dollars are in thousands ($000s)

The new staffing recommendation for Eastern and Western Operations assumes an equal division of the total NOAA transactional workload. Additional FTE were added to the Eastern Operations to support unique activities that are performed there (e.g., loan programs, reimbursable, Federal agency disbursements and Headquarters inquiries).

Exhibit 5-16: Total Finance Annual Operating Costs for To-Be

Finance *To-Be*	Western Operations		Eastern Operations		Headquarters		Total		Percent Change	Net Cost Differential *
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost		
Government Labor	44.2	$ 4,101	70.4	$ 6,526	105.0	$ 9,735	219.6	$ 20,362	-11%	$ 2,417
Contractor Labor	0.0	$ -	0.0	$ -	16.0	$ 1,952	16.0	$ 1,952	-6%	$ 122
Variable Overhead		$ 25		$ 37		$ 56		$ 118	-22%	$ 33
Fixed Overhead		$ 161		$ 161		$ 24		$ 346	-59%	$ 494
Total	44.2	$ 4,288	70.4	$ 6,724	121.0	$ 11,766	235.6	$ 22,778	-12%	$ 3,066

Notes: Dollars are in thousands ($000s)
Calculations assume current workload and exclude effect of transition costs.
**Projected cost savings*

A projected cost savings of $3,066,000 result from changes in direct labor staffing levels and overhead costs between the current (As-Is) and future (To-Be) process-based organizational structure.

6. BUDGET SERVICES

This chapter summarizes our review of NOAA's Budget services function. The analysis examined the services provided, customers, current staffing and cost levels, workload and productivity indicators, customer service satisfaction levels, management processes, recommendations for improvement, and staffing and cost implications.

6.1 OVERVIEW OF BUDGET SERVICES

NOAA-wide Budget services are provided by NOAA Headquarters. Internal budgeting within NOAA is a line office responsibility executed by NOAA line office budget staffs. The finance and administration services budget is formulated and executed by the Business Management Fund Division, an element of the NOAA Budget Office.

Headquarters budget functions focus primarily on budget formulation, execution, and administration. The Office of the Director of the Budget delivers these services. This office consists of four divisions: Execution and Operations Division, Outreach and Communications Division, Business Management Fund Division, and Formulation and Analysis Division.

6.1.1 Service Portfolio

NOAA-wide Budget Services include the full range of services expected of a Federal agency budget organization. These include:

- Budget formulation guidance and coordination;
- Analysis, distribution, and monitoring of funds;
- Coordination and liaison with Congressional appropriations staff, DOC, and OMB;
- Coordination of performance measures for budget related reports;
- Maintenance of the Table of Organization;
- Implementation of Activity Based Costing (ABC) information; and
- Management of the proposed Business Management Fund.

Budget Services produces the agency's annual budget submission in electronic and printed forms. The office also designs, produces, and distributes a budget summary known as *The Blue Book*, used by elected officials and their staffs, NOAA Line Offices and their "customers," and the public-at-large as a guide and reference to NOAA programs and activities.

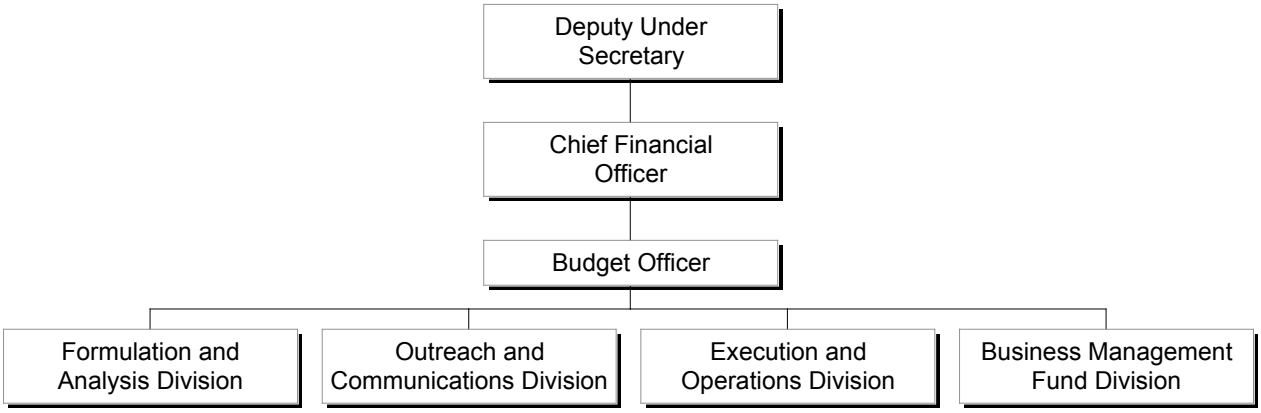
6.1.2 Customers

Budget Services customers include NOAA line offices, Department of Commerce Headquarters staff, Congressional appropriations committees, OMB, and the public.

6.1.3 Organization

Headquarters budget functions focus primarily on budget formulation, execution, and monitoring from an administrative perspective. The Office of the Director of the Budget consists of four divisions: Execution and Operations Division, Outreach and Communications Division, Business Management Fund Division, and Formulation and Analysis Division. The Office's structure is shown in Exhibit 6-1.

Exhibit 6-1: Budget Services As-Is Organization Structure



Formulation and Analysis and Execution and Operations Divisions exclusively deal with NOAA-wide operations. The Outreach and Communications Division handles budget questions and information requests for both NOAA line and staff, and finance and administrative services organizations. The finance and administration service budget is formulated and executed by the Business Management Fund Division. The Business Management Fund Division also administers two projects, the Business Management Fund (a working capital fund) and an Activity Based Costing (ABC) study of finance and administration services processes and positions.

6.1.4 Staffing and Costs

The NOAA Office of Budget consists of five organizational elements with an authorized total of 50 government FTEs and 3.5 contractor support FTEs. Until recently, the Budget Office included an additional element, a Policy, Products, and Integration Division. This division was disestablished and its functions, responsibilities, and staff were allocated to the remaining divisions. Government and contractor staffing for each

organizational element is shown in Exhibit 6-1. Only 45 of the 50 government positions are filled.

Comparing 2002 and 2003 ABC data (Exhibit 6-2) indicates a nearly 300 percent increase in government FTE in the past fiscal year. However, staff interviews indicate that FTE levels have been fairly constant over at least the past five years. These conflicting reports lead to the conclusion that FY 2002 ABC data is probably incomplete and staffing levels for Budget Services are therefore not valid for FY 2002.

Exhibit 6-2: As-Is FTEs and Costs for Budget Services

	WASH DC		TOTALS	
	FY 2002	FY 2003*	FY 2002	FY 2003*
Government FTEs	16.4	45	16.4	45
Government Cost ($000s)	$2,859	$3,762	$2,859	$3,762
Contractor FTEs	7.8	3.5	7.8	3.5
Contractor Cost ($000s)	$1,948	$ 874	$1,948	$ 874
Total FTE	24.2	48.5	24.2	48.5
Total Cost ($000s)	$4,807	$4,636	$4,807	$4,636

Notes: Dollars are in thousands ($000s)
Costs are unburdened labor
**FY 2003 is adjusted data*

6.2 FINDINGS AND CONCLUSIONS

6.2.1 Workload and Productivity Analysis

6.2.1.1 Services Selected for Detailed Analysis

The following criteria determined the services selected for detailed analysis: the service involved a large proportion of the FTEs supporting the functional area, or if the service is conducted at more than one location (the latter, to support a comparison among ASCs). Since the Budget Services function is performed only at Headquarters, no specific budget processes were selected for comparative analysis.

6.2.1.2 Internal Benchmarking

As stated previously, Budget Services are delivered at Headquarters. Although ASCs provide input information, Budget Services are not provided by the ASCs and therefore, cannot be compared across the organization. In addition, Federal agencies define budget process components very differently. Workload analysis does not provide a sound basis or set of metrics for recommendations because the budgeting process generates only one output per year (excluding quarterly reviews). Furthermore, the budget process is an administratively intense activity with rewrites and multiple revisions (mark-ups) the norm, rather than the exception. NOAA budget

staff and benchmarking partners report that budget formulation and execution processes often differ from year to year because of changes to Congressional and DOC requirements, and internal NOAA directives.

6.2.1.3 External Benchmarking

Staff members from comparable organizations within the Department of Energy (DOE), the National Aeronautics and Space Administration (NASA), and the Environmental Protection Agency (EPA) were contacted to determine what metrics, if any, these organizations collect to monitor and assess Budget Services unit performance. Booz Allen also drew on performance data from current clients. These benchmarking partners are identified as BP1 and BP2. Although these organizations are substantially larger than NOAA, they still provide useful indicators at the FTE level.

BP1 has 27,000 authorized positions and operates over 50 field offices and numerous satellite offices. This Federal agency's FY 2003 budget exceeds $4 billion. BP2 employs a staff of more than 9,500 and operates with a budget of nearly $2 billion. This Federal organization operates more than 200 offices in the United States and has offices abroad.

Like NOAA, the Department of Energy (DOE) has a large, geographically dispersed workforce. Its nationwide complex consists of Headquarters and field organizations, production facilities, administrative, and special-purpose offices. The agency's budget exceeds $20 billion. The organization is staffed with approximately 14,700 Federal employees and over 100,000 contractor employees working at over 50 major installations in 35 states.

As noted in Deliverable Two: Benchmarking Analysis issued on November 17, 2003, budgeting is not a process that affords the reviewer a great number of quickly identifiable evaluation points. Many component activities are controlled or directly affected by organizations outside of NOAA, making local production/process improvement efforts difficult at best for some activities, if not impossible for others. However, even limited measures provide insight and can guide improvement efforts. In this study, productivity is identified as the cost per FTE. Metrics are not available from the Budget function to calculate productivity by using the standard of transactions per FTE.

Although traditional metrics may not apply, there are points where process efficiencies may be compared. As mentioned in Deliverable Three: Recommendations for Cost Effective Service Improvement issued on December 15, 2003, budget organizations that employ all or many recognized industry best practices report streamlined more responsive budget preparation and execution. In addition, those organizations with integrated information systems use tracking and search capabilities to quickly respond to requests and questions on budget development, allocation, and execution. Successful budget management practices also include established response times (usually

prioritized), highly detailed, but somewhat flexible scheduling procedures, and clear, well-defined roles and responsibilities for all process participants.

Based on the units of measure identified above, Exhibit 6-3 presents a comparative analysis of the cost-effectiveness (efficiency) of NOAA Headquarters Budget Services and two of five benchmarking partners. NOAA data is based of FY 2003 staffing and averaged (unburdened) personnel costs derived from the OPM General Schedule and Locality Pay tables.

Exhibit 6-3: Budget Services Benchmark Comparative Analysis

BUDGET SERVICES											
Unit of Measure	EASC	CASC	MASC	WASC	Wash DC	HQ	EPA	NASA	BM 1	BM 2	DOE
Gather and Analyze Budgets											
Cost Per FTE		Not Performed				$1,625,960/Yr ÷ 38FTE= $42,788	Data Not Received	Data Not Received	Data Not Available	Data Not Available	Data Not Received
										Adjust*: $261,284/Yr ÷ 24 FTE= $10,887	
Provide FTE Funds Tracking and Table of Organization											
Cost Per FTE		Not Performed				$80,000/Yr ÷ 1 FTE= $80,000	Data Not Received	Data Not Received	Data Not Available	Data Not Available	$125,000/ Yr ÷ 1 FTE= $125,000

*Note: *Adjustments - This type action indicates that adjustments are needed to obligations as they go to execution.*

As at NOAA, all benchmarking partners report that budgeting is a process exclusively completed at their organizational Headquarters.

Results of the benchmarking comparison are inconclusive owing to the large dissimilarity among process components and, in some cases, a lack of data across benchmarking partners. Comparisons between benchmarking partners are also difficult to make since the budgeting process generates only one item per year (excluding quarterly reviews). One benchmarking partner commented that budgeting is "a purely administrative function which cannot be fully evaluated by process metrics… there are too many variables effecting budget formulation that are beyond the control of the budget staff."

NOAA budget staff and benchmarking partners report that budget formulation and execution often differ from year to year in response to Congressional requirements and internal directives. For NOAA, the difficulty in identifying a set of performance points over time is increased by the recent reorganization, which consolidated and realigned functions and responsibilities, and reallocated staff across the remaining four divisions. Further analysis of ABC data is necessary to provide more thorough and accurate process comparisons.

6.2.2 Customer Service Analysis

The Budget Office's primary external customers include the Congress, OMB, and DOC. NOAA Line Offices and NOAA senior management are the primary internal customers. Each of these groups has differing needs, but all demand timely, detailed and accurate responses to a variety of scheduled and ad hoc requests. Interviews reveal that budget divisions lack methods of gauging how well their work is meeting the expectations or needs of internal or external customers.

Five survey participants responded to questions concerning budget. It is evident from the survey that the majority of the respondents to the Finance survey intended their responses to also count for Budget. However, because of the small number of responses, the customer satisfaction survey information is not a reliable gauge of the overall effectiveness of Budget Services. Themes from customer comments are presented in Exhibit 6-4.

Exhibit 6-4: Budget Services Customer Feedback

CUSTOMER COMMENT	NOTES
Better turn-around time is needed. "Takes weeks and months to clear up problems."	Perceived lack of responsiveness.
Better coordination is needed between budget and finance.	Close gaps of information and understanding.
Budget execution needs to figure out what function it is in and how to fit into the NOAA budget and finance.	Clarification of roles and responsibilities.

The budget cycle is established and controlled by guidance from Congress, OMB and DOC. The NOAA Budget Office has taken the initiative to begin budget preparation ahead of published guidance, to give line and staff offices sufficient time to develop and submit budget proposals. An early start provides managers and the Budget Office (Formulation and Analysis Division) staff the time necessary to develop a detailed budget outline and complete a significant share of work that will most probably not be changed by new Congressional, OMB or DOC guidance. Completing a majority of the budget ahead of deadlines allows the budget staff, line office managers, and NOAA senior staff the opportunity to focus on specific areas or programs that are new or will appreciably change from the previous year's submission.

Each Budget Services customer has differing needs, but all demand timely, detailed and accurate responses to a variety of scheduled and ad hoc requests. Interviews reveal that Budget Divisions lack methods of gauging how well their work is meeting the expectations or needs of internal or external customers. Customer feedback, when received, is often vague and rarely helps the NOAA staff understand or identify a problem or indicate how the product or delivery might be improved. Although customer surveys are one way of measuring satisfaction, face-to-face evaluation meetings with customers soon after a reporting or product delivery cycle may prove as the best method of identifying short-comings, developing improvement ideas, and perhaps, most importantly, discovering what is done well so the staff may build on

success. From these meetings and interviews, budget managers can begin to develop a unique set of performance indicators that are based on customer interaction, specific activity error rates, and overall response times developed from a detailed understanding of the entire budgeting process and customer expectations.

6.2.3 Management Process Analysis

Planning and Budgeting

The primary function of the Budget Office is planning and preparing the NOAA Budget. The Budget Office must be adequately staffed to provide responsive, accurate, and complete service to internal and external customers. Unfortunately, while responding to the budgetary needs of others, the Budget Office itself is not given the emphasis it needs to effectively perform its role. This shortcoming is not unique to NOAA or the DOC. Reengineering and reorganization recommendations listed in Section 6.3 will help the office better structure itself to meet requirements.

Workload Forecasting

As discussed earlier, the Budget Office does an excellent job anticipating and planning for budget events. Because budget guidance from Congress, OMB and DOC is received at different times from each source during the year, the Budget Office has taken the initiative to leverage recurring requirements and actively seek out planning information and guidance in advance of 'official' releases. The Budget Formulation and Analysis Division begins the process months prior to the release of official budget guidance. The division prepares initial guidance for the Line Offices by incorporating information from the recently approved budget and, when available, early planning guidance from NOAA senior leadership.

Policy Development and Documentation

Budget development/formulation and execution policy is based on policy, guidance, procedural directives, and mandates from Congress, DOC, OMB, and the NOAA senior leadership. For their part, Budget Services develops and provides detailed implementing guidance for all aspects of budget development and execution. These procedures specify and define the actions line and staff offices must follow to implement the policies and budget guidance received from higher authority. The relationship of policy oversight to operations staff remains constant from the As-Is, shown below in Exhibit 6-5, to the proposed To-Be organization.

Exhibit 6-5: As-Is Operations vs. Policy/Oversight Breakdown

	EASC	CASC	MASC	WASC	WASH DC	HQ	TOTAL FTEs	TOTAL PERCENTAGE
BUDGET	0.0	0.0	0.0	0.0	0.0	48.5	**48.5**	**100.0%**
OPERATIONS	0.0	0.0	0.0	0.0	0.0	14.5	**14.5**	**29.9%**
POLICY / OVERSIGHT	0.0	0.0	0.0	0.0	0.0	34.0	**34.0**	**70.1%**

Note: FY 2003 Total FTEs associated with operations and policy/oversight

Process Design and Technology Utilization
We recommend that the entire budget process from formation through execution be reengineered. The objective of this effort is to improve product accuracy and timeliness and responsiveness to customers. The reengineering effort should look at incorporating industry best practices where applicable and leveraging technology to reduce repeated data entry and transposition errors, and eliminate unnecessary steps.

Staff Training and Organizational Development
Staff training is conducted when possible, but most training is done "on-the-job" and usually through the staff member's own initiative. In recent years, very little funding has been available for training the Budget Services staff. Although position requirements dictate a level of expertise with budgeting and knowledge of the Federal budgeting process, as the Planning, Programming and Budgeting System (PPBS) is implemented across NOAA, budget staff must be trained on new requirements, systems and procedures. The new training will help the staff fully understand the PPBS process; ensure budgets are correctly prepared and maintained; and reports are prepared correctly, accurately, and submitted on time.

Performance Measurement, Reporting, and Accountability
NOAA identified organizational performance measures in the form of draft Service Level Agreements (SLAs) in May 2003. Although these draft SLA have not yet been implemented they appear appropriate for Budget Services.

Exhibit 6-6: Budget Services Draft Service Level Agreements

Provider Services	Provider Performance Measures	Customer Responsibilities
FIN-S0900 **Funds Management**	100% of appropriations issued within 21 calendar days after bill is signed (# of calendar days elapsed between the signing of appropriations authorization and issuance to the receiving organization by OFA Budget Office)	

The performance standards proposed under the draft Service Level Agreements (SLA) address the performance of Budget Services. Subsequently, specific metrics must be developed that translate the organizational goals into individual staff member performance objectives. Establishing performance objectives at the employee level will enable supervisors to evaluate the performance of their employees and identify the need for corrective training if performance objectives aren't met. The General Accounting Office has described this approach as providing a "clear linkage… between individual performance and organizational success."

The Budget Office does not have a strong set of performance measures in place, but with only one product due each year, it is difficult to establish a range of meaningful performance measures. However, the performance standard shown in Exhibit 6-6

applies directly to budget execution and is the current performance measure for issuing appropriations. The Budget Execution and Operations Division also use quarterly reports and variance reports to provide the budget staff and senior leaders with an accurate gauge of overall budget execution performance.

Performance Analysis and Improvement

As discussed earlier, the best method of evaluating and improving Budget Services is through direct customer coordination. By identifying specific needs, the quality, timeliness, effectiveness, and usefulness of budget data can be better evaluated and improvement opportunities identified. It is strongly recommend that the Budget Office institute customer coordination meetings as necessary, but at least quarterly, with all customers, internal and external.

6.3 RECOMMENDATIONS AND IMPLICATIONS

Changes in budget operations are derived from detailed business process reengineering analysis of the complete budget cycle. This analysis should be applied to both agency level and finance and administration activity level budget operations. The reengineering effort should focus on how NOAA's proposed budget is developed, analyzed, revised, and presented to Congress; and how the approved budget is allocated and monitored throughout its lifecycle. Reengineering teams should focus on streamlining the process to maximize efficiency (eliminate bottlenecks, redundancy, and unnecessary activities) while simultaneously incorporating productivity gains available from technology.

RECOMMENDATION BS.1: Assess and redesign the entire budget process

We recommend that NOAA analyze and reengineer the entire NOAA budgeting lifecycle, from initial preparation in the line offices and the finance and administrative services offices, through submission to allocation (execution), monitoring, and end of year close. Current procedures appear to include redundancies that would be the focus of a redesign (e.g., duplicate data entry across multiple software applications) that not only slow the process, but also provide opportunities for administrative error. Initial review of the budget preparation process indicates the need for both process streamlining and technology improvements using integrated budget and account software.

Review of budget allocation suggests that the process contains multiple manual activities supported by locally developed "cuff" systems, which in fact work around CAMS. Although the potential for increasing efficiency in some portions of the process may be relatively low, improving the entire budget process will increase accuracy, reliability, and timeliness, and free limited staff resources for other tasks. Current process difficulties appear to support a technology solution that gathers spending plan information at point of origin and allows budget staff to quickly and accurately allocate appropriations against enacted budgets. The new process should also allow for easy

reallocation throughout the fiscal year. Using an integrated database will establish "End to End" electronic workflow and routing which incorporates standardized, on-line forms, on-line updates, and single point of data entry. The integrated database will also facilitate electronic data transfer and rapid, flexible, and responsive reactions to rewrites, updates and format changes.

During the reengineering effort, requirements must be gathered from both internal (line offices) and external (Congress, DOC, OMB) stakeholders and incorporated in the To-Be process design. Process redesign teams should investigate the use of digital signature authority to ascertain the benefits of including this electronic function in the overall budgeting process, to reduce coordination time required for approvals between organizations.

Lastly, the entire NOAA budget process should, as much as possible and is feasible, mirror the process used by Commerce. For example, inconsistent formats used between NOAA and DOC can result in substantial non-value-added effort. Using same or similar procedures and processes allows smoother transfer of information, ease of updating and eliminates the time consuming rework associated with reformatting and data conversion.

We estimate potential savings of two FTE by combining and realigning the formulation and execution processes. However, we have not included these savings in our study and recommend that the savings not be realized until after a reengineering effort is conducted. This reengineering effort would review both processes and provide an understanding of the amount of work caused by duplicate entry, reformatting, and manual transfers and submissions. Additional savings are dependent on the extent to which CAMS can support a fully integrated budget process, and will remain unresolved until the reengineering analysis is complete. This recommendation results in no adjustments to FTE levels.

RECOMMENDATION BS.2: Align the budget process (formulation through execution) as recommended by NAPA

The Execution and Operations Division and the Formulation and Analysis Division would be consolidated into one division, as recommended in the NAPA Study. Work teams would be responsible for all aspects of one or more line office or staff office budget services. This direct support team approach will provide clear customer and supervisor interface points and eliminate process fragmentation.

Line and staff offices will submit budget planning and preparation information, and receive budget allocations, from the same source. The Director of Planning, Budget and Performance, and the Budget Outreach and Communications Division, will have single points of contact for questions or information requests. Realignment provides faster, more direct response with cleaner and clearer lines of responsibility and communication. This recommendation results in no adjustments to FTE levels.

RECOMMENDATION BS.3: Transfer Program Analysis and Evaluation Office to the direct control of the Director of Planning Budget, and Performance

We recommend that the Program Analysis and Evaluation (PA&E) office be assigned to the direct control of the Director of Planning, Budget, and Performance (PB&P). The role of PA&E does not change under this reassignment, nor is it meant to infringe upon the planning role of Program Planning and Integration. Moving PA&E gives the Director of PB&P a tool to systematically and proactively analyze and improve financial and administrative processes and products throughout NOAA.

DOC has its own performance management initiative in alignment with the President's Management Agenda (PMA) headed by the Director of Budget at the Department of Commerce. The responsibility for coordinating the NOAA effort should fall under the Director of PA&E, with the initial task of closing the existing communication and planning gap with DOC.

We recommend two additional FTE for PA&E. This office is currently understaffed with only five FTE. NOAA's strategic plan identifies four mission goals and a group of crosscutting initiatives that support all four goals. Financial and administrative services functions fall under NOAA's Crosscutting Priorities/Organizational Excellence. Strategy development and implementation is executed through the newly formed Office of Program Planning and Integration (PPI). Booz Allen recommends that PA&E allocate one FTE per line office as well as one FTE responsible for ensuring that financial and administrative services programs are evaluated against performance measures for NOAA's Crosscutting Priorities/Organizational Excellence. This, in turn, will allow the Director of PA&E to close the existing communication and planning gap with DOC. This recommendation results in an increase of seven FTEs.

RECOMMENDATION BS.4: Incorporate Business Management Fund and ABC in PA&E

We recommend that Business Fund Management and ABC study activities be assigned to the Program Analysis and Evaluation (PA&E) office and remain under the control of the Director of Planning, Budget, and Performance. With the disestablishment of the Business Management Fund Division (Recommendation OT.1) and the transfer of finance and administrative budget operations to the MSO, the Business Fund Management and ABC study activities, supported by a staff of 3 government and 2.5 contractor FTEs, remain. Too small to stand on their own, the functions performed by these groups rightly belong under the control of the Director of Planning, Budget and Performance. Because these activities focus on budgeting and performance, their work is in keeping with the general scope function of PA&E operations. This recommendation results in a decrease of nine FTEs.

6.4 TARGET ORGANIZATION

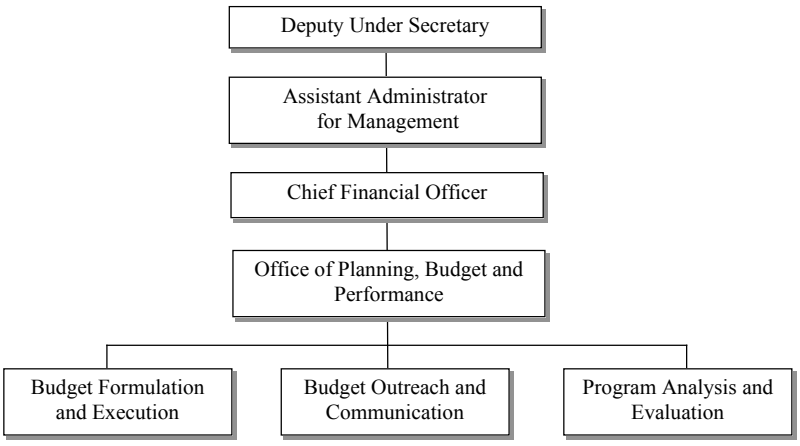
NOAA should adopt a more consolidated structure that combines budget formulation and execution activities. In effect, the Headquarters budgeting process, from development through execution to end of year closeout would be administered and monitored by one division. With control over the entire process, the chief of this new division can better coordinate budgeting functions, cross-train and task organize staff, meet peak work loads, and provide the Director of Planning Budget, and Performance a single point of contact for coordinating budget actions. This action directly addresses the customer issue of not being able to receive responsive service because budget services are now usually staffed "one deep".

Disestablishing the Business Fund Management Office and transferring the budget function to the proposed Management Support Office (MSO) aligns finance and administrative services budget management directly under the Assistant Administrator, segregates the function from Headquarters budgeting operations, and provides the Assistant Administrator a more visible and responsive staff office. In addition, separating NOAA budget and finance operations from the administrative oversight of the Planning, Budget, and Performance Office eliminates conflicting interests for the Director of Planning, Budget, and Performance and strengthens his/her position as the "honest broker" for the NOAA budgeting process.

Transferring Business Fund Management and ABC study activities to the Program Analysis and Evaluation (PA&E) office is appropriate because these studies focus on planning, budgeting and/or performance and will easily fit under PA&E's functional scope of operations. This allows these initiatives to remain under the control of the Director of Planning, Budget, and Performance and affords them continued support as important budget associated activities.

Based on the recommendations listed above, the proposed future Budget Services organizational structure is illustrated in Exhibit 6-7.

Exhibit 6-7: Budget Services To-Be Delivery Structure



Note: This chart only displays the budget organizations. It does not show all the organizations that report to the Chief Financial Officer, the Assistant Administrator for Management, or the Deputy Under Secretary.

6.4.1 As-Is and To-Be Comparison of Staff and Costs

Current staffing and labor operating costs are shown in Exhibit 6-8.

Exhibit 6-8: Total Budget Annual Operating Costs for As-Is

Budget	EASC		CASC		MASC		WASC		Wash DC		Headquarters		Total	
As-Is	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost
Government Labor	0	$ -	0	$ -	0	$ -	0	$ -	0	$ -	45.0	$ 4,801	45.0	$ 4,801
Contractor Labor	0	$ -	0	$ -	0	$ -	0	$ -	0	$ -	3.5	$ 875	3.5	$ 875
Variable Overhead		$ -		$ -		$ -		$ -		$ -		$ 48		$ 48
Fixed Overhead		$ -		$ -		$ -		$ -		$ -		$ 993		$ 993
Total	0	$ -	0	$ -	0	$ -	0	$ -	0	$ -	48.5	$ 6,717	48.5	$ 6,717

Notes: Dollars are in thousands ($000s)
Calculations assume current workload and exclude effect of transition costs.

Actual staffing level (FTE) differences between the current and proposed organizational structure reflect an estimated operating reduction of approximately four percent. Realized cost savings are dependent upon implementation of recommendations developed in the proposed detailed reengineering study. Savings are made against current assigned staff. We recognize that the Budget Office is authorized 50 FTEs, but has an actual operating strength of 45 FTEs. Estimated staffing and costs associated with the reengineered budget process, disestablishment of the Business Fund Management Division and the addition of PA&E are listed in Exhibit 6-9.

Exhibit 6-9: Total Budget Annual Operating Costs for To-Be

Budget	Western Operations		Eastern Operations		Headquarters		Total		Percent	Net Cost
To-Be	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	Change	Differential *
Government Labor	0	$ -	0	$ -	43.0	$ 4,587	43.0	$ 4,587	-4%	$ 213
Contractor Labor	0	$ -	0	$ -	3.5	$ 875	3.5	$ 875	0%	$ -
Variable Overhead						$ 46		$ 46	-4%	$ 2
Fixed Overhead						$ 993		$ 993	0%	$ -
Total	0	$ -	0	$ -	46.5	$ 6,501	46.5	$ 6,501	-3%	$ 215

Notes: Dollars are in thousands ($000s)
Calculations assume current workload and exclude effect of transition costs
**Projected cost savings*

A projected cost savings of $215,000 result from changes in direct labor staffing levels and overhead costs between the current (As-Is) and future (To-Be) process-based organizational structures.

7. ACQUISITION SERVICES

7.1 OVERVIEW OF ACQUISITION SERVICES

The Acquisition Services Division acquires approximately $700 million of goods and services annually to support activities of NOAA and other agencies of the Department of Commerce (DOC). Acquisition Services activities take place in the Washington, DC area and in the regional ASCs. The primary customers of this function are NMFS, NESDIS, NWS, NOS, and OAR. Additionally, within the Department of Commerce the Acquisition function supports the International Trade Administration (ITA), National Institute of Standards and Technology (NIST), National Telecommunications and Information Administration (NTIA), Bureau of Economic Analysis (BEA), and the Bureau of Industry and Security (BIS). Non-NOAA customers comprise 9% of the Acquisitions transactions.

7.1.1 Service Portfolio

All Acquisition Services offices support customers throughout the full acquisition lifecycle. Services include: planning, statement of work preparation, solicitation, negotiation, award, administration, and close out. In addition, Acquisition Services works to ensure that NOAA meets its goals for awarding business to small and disadvantaged businesses.

Acquisitions Services fall into three general categories: contracts, simplified acquisitions, and purchase card (sometimes referred to as Bankcard). Simplified Acquisition procedures are streamlined techniques and guiding principles designed to reduce the administrative burden of awarding the lower dollar value procurements that account for the vast majority of acquisitions. Purchase cards are issued to authorized government employees and can typically be used for purchases of up to $2,500, however higher limits are possible.

NOAA Acquisitions Services does not include the DOC Bankcard Center or the procurement office of the National Data Buoy Center (NDBC). The Bankcard Center is located at CASC, however it reports to the DOC Director of Acquisitions and services all of the Department of Commerce. The NDBC is part of the NWS and is headquartered at the John C. Stennis Space Center in Mississippi. Their acquisition work is functionally located under the Director, Acquisition and Grants Office (AGO). However unlike the ASCs, they are not part of NOAA's finance and administration services**.**

7.1.2 Customers

NOAA's Acquisition Services Division primarily supports the various segments of NOAA; however, they also support many of the other DOC agencies. This support is provided for two primary reasons. First, offices of some DOC Agencies (e.g., NIST and

NTIA) are physically located near an ASC (e.g., MASC). Second, some of the smaller DOC Agencies (e.g., BIS, BEA) do not have their own acquisition staffs.

Three of the ASCs (EASC, MASC, and WASC) are focused on supporting customers located in their geographic regions. They support regional offices of NOAA bureaus such as NWS and NMFS, as well as regional offices of other DOC agencies such as NIST and NTIA. CASC is the only office that does not support a large local customer base. For example, this office is currently supporting construction projects in Alaska and South Carolina. In fact, only 13% of its customers are located within the Kansas City metropolitan area.

7.1.3 Organization

Acquisition Services at NOAA are delivered on both a customer-focused and a location-focused basis. The Wash DC staff is organized into four branches:

- NESDIS Acquisition Management
- NWS Acquisition Management
- NOS/NMFS/OAR Acquisition Management
- External Customers Acquisition Management

Each of the four Wash DC branches primarily services the branch associated with its name. The External Customers branch supports various NOAA Headquarters offices as well as DOC Agencies, such as NIST, NTIA, ITA, and BIS.

There is also a separate staff for the Office of the Director, Acquisitions and Grants. This office provides all of the oversight, policy, and administration for the NOAA Acquisitions and Grants offices. This office typically does not become involved in the processing of acquisition transactions.

All Acquisition Management offices follow the same business processes. When an office receives a purchase request, a manager first reviews the request. It is then assigned to a member of the acquisitions staff. That staff member is then responsible for all activities regarding that acquisition throughout its lifecycle. Both MASC and WASC have separate groups that are assigned to process SAs and contracts, while all staff processes both SAs and contracts at the other two ASCs and Wash DC.

7.1.4 Staffing and Costs

As Exhibit 7-1 shows, a total of 131 FTEs directly support the acquisitions function at NOAA. The exhibit also shows the total functional cost, which is total unburdened labor cost, of $11,360,000.

Exhibit 7-1: As-Is FTEs and Costs for Total Acquisitions Services

ACQUISITIONS														
	EASC		CASC		MASC		WASC		WASH DC		HQ		TOTALS	
	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*
Government FTE	11.0	11.0	16.0	21.0	13.0	13.0	21.0	21.0	52.0	52.0	0.0	11.0	113.0	129.0
Government Cost ($000s)	$578	$704	$641	$930	$748	$874	$1,049	$1,250	$3,033	$4,930	$ 0	$2,515	$6,049	$11,230
Contractor FTE	0.1	0.2	0.1	0.2	0.1	0.4	0.2	0.2	16.1	1.1	0.0	0.0	16.5	2.0
Contractor Cost ($000s)	$6	$22	$5	$7	$10	$ 30	$17	$14	$1,285	$84	$0	$0	$1,323	$157
Total FTE	11.1	11.2	16.1	21.2	13.1	13.4	21.2	21.2	68.1	53.0	0.0	11.0	129.6	131.0
Total Cost ($000s)	$583	$726	$646	$937	$758	$904	$1,067	$1,264	$4,318	$5,014	$0	$2,515	$ 7,371	$11,360

Notes: Dollars are in thousands ($000s)
Costs are unburdened labor
**FY 2003 is adjusted data*

7.2 FINDINGS AND CONCLUSIONS

7.2.1 Workload and Productivity Analysis

7.2.1.1 Services Selected for Detailed Analysis

The NOAA ABC data identifies eleven acquisition related activities. For purposes of this analysis, these activities were rolled up into five service categories that more closely match the current acquisition business processes. The two services that comprise the majority of acquisitions activity are contracts and simplified acquisitions (SAs). Several basic measures were used to analyze productivity for Acquisitions. They are:

- Contract Value Per FTE;
- Contract Actions Per FTE;
- Contracts Cost as a Percent of Value;
- Simplified Acquisitions Value Per FTE;
- Simplified Acquisitions Actions Per FTE;
- Simplified Acquisitions Cost as a Percent of Value;
- Total Value Per FTE;
- Total Actions Per FTE; and
- Total Cost as a Percent of Value.

The three contracts measures can be used to analyze and compare contract related productivity across all of NOAA's acquisitions offices. The three simplified acquisitions measures can be used similarly. The purpose of the three total level measures is to eliminate any variations that may occur due to differences in the way the various offices classify their workload. For all of the FTE based measures, the goal is to have the

results be as high as possible. For the Percent of Value measures, the goal is to be as low as possible.

7.2.1.2 Internal Benchmarking

Contracts

The total costs associated with the Contracts services are provided in Exhibit 7-2. As shown in the Exhibit, government FTEs are decreasing in Acquisitions while costs are generally increasing. With the exception of Wash DC, the contractor FTE counts are very low, which is reasonable because acquisition services are generally considered to be inherently governmental in nature and are therefore primarily performed by government staff.

Exhibit 7-2: Contracts Services Costs and FTEs

ACQUISITIONS – CONTRACTS														
	EASC		CASC		MASC		WASC		WASH DC		HQ		TOTALS	
	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*
Government FTE	6.9	5.7	8.5	7.9	6.6	6.5	15.4	13.6	30.8	29.3	0.0	0.0	68.3	63.0
Government Cost ($000s)	$332	$322	$336	$425	$362	$422	$760	$801	$1,745	$2,682	$0	$0	$3,536	$4,653
Contractor FTE	0.0	0.1	0.0	0.0	0.1	0.2	0.1	0.1	12.8	1.1	0.0	0.0	13.1	1.5
Contractor Cost ($000s)	$2	$10	$1	$3	$5	$17	$12	$11	$1,025	$84	$0	$0	$1,045	$124
Total FTE	6.9	5.8	8.5	7.9	6.7	6.7	15.6	13.8	43.6	30.4	0.0	0.0	81.4	64.6
Total Cost ($000s)	$334	$332	$337	$428	$368	$439	$771	$812	$2,770	$2,766	$0	$0	$4,581	$4,777

Notes: Dollars are in thousands ($000s)
Costs are unburdened labor
**FY 2003 is adjusted data*

The total value and volume of contracts for 2003 is shown in Exhibit 7-3. There is a higher average contract value for the Wash DC office because it provides support to the Headquarters offices of NOAA's bureaus. The Headquarters offices are typically responsible for major, high value acquisitions, such as new systems or satellites. While there is no obvious explanation for the wide variation among the ASCs, it is important to note that the number and value of contracts is driven by the customer organizations that each office supports. MASC customers make larger procurements to meet their business needs, than EASC customers.

Exhibit 7-3: Contracts Value and Volume

ACQUISITIONS – CONTRACTS						
	EASC	CASC	MASC	WASC	WASH DC	TOTAL
Dollar Value ($000s)	$ 28,507	$ 45,720	$ 26,300	$ 70,800	$ 253,400	$ 424,727
Total Actions	447	480	228	746	1,708	3,609
Average Value ($000s)	$ 64	$ 95	$ 115	$ 95	$ 148	$ 118

Notes: Dollars are in thousands ($000s)
Costs are unburdened labor

The total cost to administer contracts and the ratio of cost to contract value is shown in Exhibit 7-4. All of the offices, with the exception of MASC, are closely clustered within the range of 0.9% to 1.2%. This indicates that all of these offices are relatively equal in terms of their performance in managing contracts cost effectively. In our experience, we would expect this indicator to fall within the 1% to 2% range.

Exhibit 7-4: Contract/Value Ratio

ACQUISITIONS – CONTRACT/VALUE RATIO						
	EASC	CASC	MASC	WASC	WASH DC	TOTAL
Contracts Cost ($000s)	$ 332	$ 428	$ 439	$ 812	$ 2,766	$ 4,777
Cost as % of value	1.2%	0.9%	1.7%	1.1%	1.1%	1.1%

Note: Dollars are in thousands ($000s)

Exhibit 7-5 shows the number of FTEs devoted to managing contracts, the value of contracts per FTE, and the number of contract actions per FTE. The higher ratio of contract value to FTE indicates that the Wash DC office processes the highest value of contracts per FTE. The higher ratio for the Wash DC office is, again, due to the fact that this office provides support to the Headquarters offices of NOAA's bureaus that make larger value procurements than customers at field offices. The fluctuations of the other ratios between the ASCs suggest that the distribution of work between the offices is not equal.

Exhibit 7-5: Contract Actions per FTE

ACQUISITIONS – CONTRACT ACTIONS						
	EASC	CASC	MASC	WASC	WASH DC	TOTAL
Contracts FTE	5.8	7.9	6.7	13.8	30.4	64.6
Value per FTE ($000s)	$ 4,900	$ 5,800	$ 3,900	$ 5,100	$ 8,300	$ 6,600
Actions per FTE	77.2	60.8	33.8	54.1	56.3	55.9

Note: Dollars are in thousands ($000s)

Simplified Acquisitions

Simplified Acquisition procedures are streamlined techniques and guiding principles designed to reduce the administrative burden of awarding the lower dollar value procurements that account for the vast majority of acquisitions. They allow informal quoting and competition procedures, encourage the acceptance of verbal versus written

quotations, prefer comparing quoted prices versus conducting negotiations, and provide streamlined clauses to support the award document.

Exhibit 7-6 identifies the FTEs and costs associated with this service area. As the Exhibit indicates, there has been substantial growth in the number of FTEs in the Wash DC office from 2002 to 2003. While the number of government FTEs increased by about 34%, the cost of these FTEs has more than doubled. Other ASCs show a greater increase in cost as compared to the increase in staffing would seem to justify. Due to time constraints, we were unable to determine the cause of these differences.

Exhibit 7-6: Simplified Acquisitions Services FTEs and Costs

ACQUISITIONS – SIMPLIFIED ACQUISITIONS														
	EASC		CASC		MASC		WASC		WASH DC		HQ		TOTALS	
	2002	2003*	2002	2003*	2002	2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*
Government FTE	3.3	3.8	4.4	4.0	5.2	5.0	3.5	3.8	16.4	22.0	0.0	0.0	32.8	38.6
Government Cost ($000s)	$175	$246	$176	$231	$300	$337	$173	$227	$956	$2,085	$0	$0-	$1,781	$3,125
Contractor FTE	0.0	0.1	0.0	0.0	0.1	0.2	0.1	0.0	0.4	0.0	0.0	0.0	0.6	0.3
Contractor Cost ($000s)	$2	$9	$1	$2	$4	$13	$6	$3	$33	$0	$0	$0-	$45	$27
Total FTE	3.4	4.0	--	--	5.3	5.2	3.5	3.8	16.8	22.0	0.0	0.0	33.4	39.0
Total Cost ($000s)	$178	$255	$177	$233	$304	$350	$178	$229	$989	$2,085	$0	$0-	$1,826	$3,152

Notes: Dollars are in thousands ($000s)
Costs are unburdened labor
**FY 2003 is adjusted data*

The total value and volume of SAs for 2003 is shown in Exhibit 7-7. As the Exhibit shows, the average value of SAs fluctuates substantially from office to office which can be explained by the variance in the number of customers served by the ASC, number of employees within each customer, types of procurements, etc.

Exhibit 7-7: Simplified Acquisitions Value and Volume

ACQUISTIONS – SIMPLIFIED ACQUISITIONS						
	EASC	CASC	MASC	WASC	WASH DC	TOTAL
Dollar Value ($000s)	$ 54,725	$ 22,590	$ 27,500	$ 48,400	$ 125,100	$ 278,315
Total Actions	2,304	2,822	2,647	2,651	3,373	13,797
Average Value ($000s)	$ 24	$ 8	$ 10	$ 18	$ 37	$ 20

Note: Dollars are in thousands ($000s)

The total cost to administer SAs and the ratio of cost to value is shown in Exhibit 7-8. As the Exhibit shows, this ratio also fluctuates substantially from office to office.

Exhibit 7-8: Simplified Acquisition Cost Ratio

AQUISITIONS – SIMPLIFIED AQUISTIONS COST RATIO						
	EASC	CASC	MASC	WASC	WASH DC	TOTAL
Simplified Acq. Cost	$ 255	$ 233	$ 350	$ 229	$ 2,085	$ 3,152
Cost as % of value	0.5%	1.0%	1.3%	0.5%	1.7%	1.1%

Note: Dollars are in thousands ($000s)

Exhibit 7-9 shows the number of FTEs devoted to managing SAs, the value of SAs per FTE and the number of SAs per FTE. Based on dollar value, EASC and WASC make the greatest use of SAs. While the number of SAs processed by the Wash DC office is much less than any of the ASCs, the dollar value is large. This is consistent with Exhibit 7-7 that shows that the average value of an SA processed by the Wash DC offices is larger than the other offices, again due to the large scale procurements for satellites, software systems, etc.

Exhibit 7-9: Simplified Acquisitions per FTE

ACQUISITIONS – SIMPLIED ACQUISITIONS PER FTE						
	EASC	CASC	MASC	WASC	WASH DC	TOTAL
Simplified Acquisition FTE	4.0	4.0	5.2	3.8	22.0	39.0
Value per FTE	$ 13,833	$ 5,649	$ 5,314	$ 12,568	$ 5,688	$ 7,141
Actions per FTE	582	706	511	688	153	354

Note: Dollars are in thousands ($000s)

Purchase Cards

Purchase cards can be used in SA activity. The level of effort and cost associated with Purchase Card activity is shown in Exhibit 7-10. As the Exhibit indicates, the total number of FTEs associated with this area has decreased from 2002 to 2003, as has the cost, with the exception of EASC. This distinction may be due to an inaccuracy in the ABC data and requires further study.

Exhibit 7-10: Purchase Card FTEs and Costs

ACQUISITIONS – PURCHASE CARD														
	EASC		CASC		MASC		WASC		WASH DC		HQ		TOTALS	
	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*
Government FTE	0.6	1.0	2.8	1.6	1.0	0.9	2.0	2.4	4.7	0.0	0.0	0.9-	11.1	6.8
Government Cost ($000s)	$34	$65	$111	$91	$59	$63	$99	$141	$273	$3	$ --	$211	$577	$574
Contractor FTE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0
Contractor Cost ($000s)	$1	$1	$3	$2	$0	$0	$0	$0	$23	$0	$0	$0	$26	$2
Total FTE	0.7	1.0	2.8	1.6	1.0	0.9	2.0	2.4	5.0	0.0	0.0	0.9	11.5	5.9
Total Cost ($000s)	$35	$66	$114	$92	$59	$63	$99	$141	$296	$3	$ --	$211	$603	$577

Notes: Dollars are in thousands ($000s)
Costs are unburdened labor
**FY 2003 is adjusted data*

Combined Acquisition Activity (Contracts and Simplified Acquisition)

This section examines all acquisition activity. Due to inconsistencies between how the various offices classify transactions and how they account for time, fluctuations may be introduced into the data analysis. Examining combined data is intended to eliminate these fluctuations. The total value and volume of Contracts and SAs for 2003 is shown in Exhibit 7-11. The key metrics in this Exhibit are Cost as % of Value and Value per FTE. The results show that the Wash DC offices, EASC, and WASC are relatively equal in performance.

Exhibit 7-11: Combined Acquisition Activity

ACQUISITIONS - COMBINED ACQUISITIONS ACTIVITY						
	EASC	CASC	MASC	WASC	WASH DC	TOTAL
Dollar Value ($000s)	$ 83,232	$ 68,310	$ 53,800	$ 119,200	$ 378,500	$ 703,042
Combined Actions	2,751	3,302	2,875	3,397	5,081	17,406
Total Cost ($000s)	$ 628	$ 693	$ 806	$ 1,052	$ 4,949	$ 8,128
Cost as % of value	0.8%	1.0%	1.5%	0.9%	1.3%	1.2%
Total FTE	10	12	12	18	52	104
Value per FTE	$ 8,537	$ 5,741	$ 4,514	$ 6,761	$ 7,230	$ 6,789
Actions per FTE	282	278	241	193	97	168

Note: Dollars are in thousands ($000s)

Customer Acquisition Activity

Exhibit 7-12 shows acquisition activity by customer organization. The customer Exhibit shows that due to limitations of the CSTARS data, 25% of the acquisition activity cannot be attributed to a specific bureau within NOAA. In addition, all of the ASCs support a diverse set of customer organizations and the non-NOAA customers comprise only 9% of the total customer activity.

Exhibit 7-12: Customer Acquisition Activity

ACQUISITIONS – CUSTOMER ACTIVITY							
($000s)	EASC	CASC	MASC	WASC	WASH DC	TOTAL	PERCENT OF TOTAL
NOAA - Unspecified	$ 12,159	$ 12,803	$ 17,666	$ 36,696	$ 90,583	$ 169,906	25%
NMFS	20,683	10,902	-	43,800	28,056	103,441	15%
NWS	1,123	11,312	794	6,825	77,922	97,976	14%
NESDIS	27,735	-	150	7,144	58,948	93,978	14%
NOS	17,068	10,660	-	14,304	36,960	78,992	11%
OAR	3,425	1,927	2,806	5,926	27,432	41,516	6%
Office of the Secretary	-	-	-	-	37,503	37,503	5%
Economic Affairs	-	-	-	-	314	314	0%
General Counsel	-	-	-	15	-	15	0%
Total NOAA	82,194	47,603	21,415	114,709	357,718	623,640	91%
							-
NIST	-	-	22,254	-	1,253	23,507	3%
ITA	954	794	-	534	10,568	12,850	2%
BIS	-	43	-	13	12,076	12,133	2%
NTIA	-	-	1,487	-	4,174	5,661	1%
BEA	-	-	-	-	3,500	3,500	1%
MBDA	6	93	52	123	2,988	3,261	0%
EDA	78	56	4	31	2,471	2,640	0%
Census	-	-	-	-	676	676	0%
PTO	-	-	-	-	10	10	0%
Total Non-NOAA	1,038	986	23,797	701	37,717	64,239	9%
Total	$ 83,232	$ 48,589	$ 45,212	$ 115,411	$ 395,435	$ 687,879	100%

Note: Dollars are in thousands ($000s)

7.2.1.3 External Benchmarking

The NOAA Acquisitions function was benchmarked against three other agencies: the Social Security Administration (SSA), the Department of the Interior's National Business Center (NBC), and the U.S. Coast Guard (USCG). Exhibit 7-13 shows the Contract Value per FTE and the Contract Actions per FTE. Based on the Contract Value per FTE measure it appears that NOAA is somewhat less efficient than either SSA or NBC. However, it is roughly equivalent to the USCG. Based on Contract Actions per FTE, NOAA is more productive than SSA, but substantially less productive than either NBC or USCG.

Exhibit 7-13: Contracts Benchmarking Measures

	NOAA	SSA	NBC	USCG
Total Contracts Value ($000s)	$ 424,727	$ 498,500	$ 895,000	$ 104,499
FTE	126	77	68	33
Contract Value per FTE ($000s)	$ 3,371	$ 6,474	$ 13,162	$ 3,167
Total Contract Actions	3,609	1,505	4,280	2,379
Contract Actions per FTE	29	20	63	72

Note: Actual Dollars

Exhibit 7-14 shows the Simplified Value per FTE and the Simplified Acquisitions per FTE. Both measures for simplified acquisitions indicate that NOAA makes substantially greater use of this acquisition method than any of the other three agencies and produces substantially more acquisitions per FTE than the other benchmarking partners.

Exhibit 7-14: Simplified Acquisitions Benchmarking Measures

	NOAA	SSA	NBC	USCG
Total SA Value ($000s)	$ 278,315	$ 16,600	$ 27,300	$ 31,358
FTE	126	77	68	33
Simplified Value per FTE ($000s)	$ 2,209	$ 216	$ 401	$ 950
Simplified Acquisitions Actions	13,797	2,853	2,669	1,376
Simplified Acquisitions per FTE	110	37	39	42

Note: Actual Dollars

Exhibit 7-15 shows the Total Acquisitions Value per FTE and the Total Acquisitions per FTE. Due to differences in the way agencies classify transactions, analyzing their total acquisition activity may give a better indicator of their overall effectiveness. Based on Total Acquisition Value per FTE and Acquisition Cost as % of Value, NOAA is roughly equivalent to both the SSA and USCG. However, the same measures indicate that NOAA is roughly half as effective as NBC. This result is not unexpected. NBC provides outsourced acquisition services to other agencies and has a reputation for being a cost-effective provider that follows government best practices.

Exhibit 7-15: Total Acquisitions Benchmarking Measures

	NOAA	SSA	NBC	USCG
Total Acquisitions Value ($000s)	$ 703,042	$ 515,100	$ 922,300	$ 135,857
FTE	126	77	68	33
Total Acquisition Value per FTE ($000s)	$ 5,580	$ 6,690	$ 13,563	$ 4,117
Total Acquisitions Actions	17,406	4,358	6,949	3,755
Total Acquisition Actions per FTE	138	57	102	114
Total Acquisition Cost	$ 11,149	$ 7,761	$ 6,650	$ 2,377
Acquisition Cost as % of Value	2%	2%	1%	2%

Note: Dollars are in thousands ($000s)

7.2.2 Customer Service Satisfaction Analysis

As part of the data collection interviews, the team conducted a high-level survey to assess the overall customer satisfaction with acquisition services. Customers were asked to rate the quality of the services provided by Acquisitions using a 1-5 scale, with 1 as the lowest and 5 as the highest. The rating scale for Customer Satisfaction is based on a 1-5 Likert scale[6]. The customer satisfaction results, reported by average rating scores, reflect the data collected from surveys of both internal and external customers, shown in Exhibit 7-16.

Exhibit 7-16: Comparison of Customer Satisfaction Survey Results

Acquisitions Services	EASC	CASC	MASC	WASC	WASH DC	TOTALS
Internal Customers	3.7	4.1	4.6	4.1	3.8	4.1
External Customers	3.0	4.0	4.2	4.0	4.5	3.9
All Customers	3.7	4.1	4.5	4.1	3.9	4.0

Overall, the results indicated that customers have a moderately high level of satisfaction with the service that they receive from all acquisition offices. However, MASC's rating of 4.5 places it measurably ahead of the other offices. This is also significant since MASC scored much worse than the other offices on several of the cost effectiveness measures listed previously. Acquisitions does not currently track cycle times. PALT (Procurement Action Lead Time) is a metric that has been identified as key performance indicator for Acquisitions. However, due to limitations of the CSTARS system, they are currently unable to effectively track PALT.

The customer satisfaction survey conducted for Deliverable One: Workload Analysis issued in November 2003 indicates that timeliness is not a key issue for Acquisitions

[6] Rating Scale for Customer Satisfaction Survey:
1. Services **seldom** meets your needs in a timely manner and are free from errors
2. Services **sometimes** meet your needs in a timely manner and are free from errors
3. Services **often** meet your needs in a timely manner and are free from errors
4. Services **usually** meet your needs in a timely manner and are free from errors
5. Services **always** meet your needs in a timely manner and are free from errors

customers. Acquisitions had an average score of 4 on a 5-point scale. This score indicates that most customers believe that "Services usually meet your needs in a timely manner and are free from errors".

7.2.3 Management Process Analysis

Planning and Budgeting
During our interviews with Acquisitions managers, we were told that the planning and budgeting process is an area that should be improved. The biggest challenge to effective planning and budgeting has been the lack of an approved budget at the beginning of the fiscal year. This impacts Acquisition's customers, because without a final budget they are unable to plan their spending. This also impacts the Acquisitions team at both the Wash DC office and the ASCs, because they do not know their customer's plans or their own budget levels. Obviously, NOAA does not have the ability to control when Congress approves their budget. However it is important to be aware that delays in approving budgets can have a negative impact on the planning process.

Workload Forecasting
The Acquisitions groups at NOAA generally do a good job at workload forecasting. In particular, the braches of the Wash DC office are effective at workload forecasting. This is due primarily to the fact that they are organized around customer organizations. The Wash DC staff is organized into four branches:

- NESDIS Acquisition Management
- NWS Acquisition Management
- NOS/NMFS/OAR Acquisition Management
- External Customers Acquisition Management

Each of the four Wash DC branches primarily services the branch associated with its name. The External Customers branch supports various NOAA Headquarters offices as well as DOC Agencies, such as NIST, NTIA, ITA, and BIS.

Being aligned with specific customer organizations allows Acquisitions managers to develop strong relationships with those organizations and to develop insights into their long-range goals and objectives.

The key workload related issue regarding the current structure is the inability to balance work among the various branches. The Acquisitions branches at the ASCs do not report directly to the Director of Acquisitions and Grants. As a result, it is difficult balance the workload across the Wash DC offices and the ASCs as customer demand shifts. This imbalance in reflected in the productivity numbers shown in the Workload Analysis document.

As previously described in this chapter, due primarily to uncertainties over budgets, acquisition is a highly seasonal activity. More acquisitions are awarded in the last quarter of the fiscal year than in any other quarter.

Policy Development and Documentation

Acquisitions activity across the Federal government is governed by the Federal Acquisitions Regulations (FAR). The FAR system was established for the codification and publication of uniform policies and procedures for all executive Agencies. Due to both the depth and breadth of the FAR, acquisitions is a substantially standardized activity across the government. In addition, both the Department of Commerce and NOAA have issued acquisition related policies and guidelines.

During our interviews with Acquisitions managers we were told that not enough attention is devoted to the development of NOAA specific acquisitions policies and procedures. While the need for additional policy making activity is recognized, there are not enough staff members available to address all of the issues identified. While we agree that additional policy development is required, we believe that the appropriate place for this is at the DOC level. The DOC should be more proactive in developing Acquisitions policies that apply to all of its agencies.

We believe that this is appropriate for two reasons. First, the DOC controls CSTARS. Changes to policies typically result in changes or additions to applications systems before they can be implemented. As a result, the organization that controls the applications system should also control policy formulation. This will improve the coordination of activities between the two groups. Second, NOAA provides acquisitions support to other DOC agencies such as NIST, NTIA, ITA, and BIS. These agencies may resist policies that are developed at the NOAA level. It would be easier to implement and enforce polices if they were issued at the DOC level.

Under the current organizational structure there is a difference between the role played by the fours ASCs and the Wash DC office, and the role played by the Headquarters office. All staff time in the ASCs and the Wash DC office is dedicated to operations, while all acquisitions related policy and oversight work is performed by the Headquarters office. A small share of the Headquarters time is devoted to operations. This reflects the time that several staff members spend supporting the BankCard program. Exhibit 7-17 shows the As-Is Acquisitions time allocation.

Exhibit 7-17: As-Is Operations vs. Policy/Oversight Breakdown

	EASC	CASC	MASC	WASC	WASH DC	HQ	TOTAL FTEs	TOTAL PERCENTAGE
ACQUISITION	11.2	21.2	13.4	21.2	53.0	11.0	**131.0**	**100.0%**
OPERATIONS	11.2	21.2	13.4	21.2	53.0	2.0	**122.0**	**93.1%**
POLICY / OVERSIGHT	0.0	0.0	0.0	0.0	0.0	9.0	**9.0**	**6.9%**

Note: FY 2003 Total FTEs associated with operations and policy/oversight

Under the proposed organizational structure, Eastern and Western Operations will continue to devote 100% of their time to operations. All policy and oversight work will continue to be performed by the Headquarters staff. Due to the transfer of the DOC Bankcard Center and its five staff to Headquarters, the percent of time devoted to operations will increase to 28%.

Process Design and Technology Utilization

Acquisition processes are inconsistent across the various NOAA Acquisition branches. Reengineering Acquisitions business processes will allow NOAA to proactively address changes in the procurement environment that are impacting all Federal agencies. Examples include performance based contracting, competitive sourcing, and greater oversight of procurement and purchase cards. Some of the branches have separate teams for contracts and simplified acquisitions, while others have all activity handled by the one common team. While both of these organization structures have different strengths and weaknesses, we believe that separate contracts and simplified acquisition workstreams offer the best opportunity for achieving real operational efficiencies. These are described in detail in Section 6.5, Recommendation Details, of the Recommendations for Cost-Effective Service Improvement document. As noted above, the current lack of centralized control over the acquisitions function prevents this standardization from being implemented now.

All NOAA acquisition branches utilize the CSTARS system as their primary application platform. CSTARS is a DOC controlled system that is utilized by all agencies throughout the department. Our interviews with managers and staff from throughout the acquisitions branches indicate that there are several problems with the CSTARS system. First, the lack of integration between CSTARS and CAMS is a major problem for all acquisition groups within NOAA. All groups devote a substantial amount of time to re-keying data from one system into the other. In addition, data entry errors result in additional processing delays.

Second, difficulties in using CSTARS were raised by all acquisition groups within NOAA. It was noted that the confusing nature of the system results in lower than expected productivity by acquisitions staff. In addition, difficulty in creating reports was also noted as being a major drawback of the system. The inability to generate meaningful and accurate reports is a major impediment to the use of CSTARS as a management tool. In addition, several branches devote resources to maintaining tracking reports outside of CSTARS.

Staff Training and Organizational Development

Federal acquisitions staff have various training requirements that they are required to meet before they can become warranted contracting officials. Currently all staff meet the basic training requirements. However, the federal acquisitions environment is rapidly changing, and appropriate training is necessary in order to enable staff to stay current. For example, there is currently a strong push underway to adopt performance based contracting. At present, Acquisitions does not have a centralized program or

budget for training. Some of the Acquisitions branches have been able to provide limited training opportunities for their staff members, while others have not had training funds available for several years. This lack of training impacts the ability of NOAA to implement and deliver acquisitions best practices.

Some of the current customer dissatisfaction regarding Acquisitions is due to a lack of understanding in the NOAA customer community of acquisition policies and procedures. Customers may not be fully aware of what their role is in the acquisitions process, and of what limitations Acquisitions has regarding it's authority. In addition, this lack of understanding by customers creates the need for additional support by the acquisitions staff.

Performance Measurement, Reporting, and Accountability
In order to ensure that aggressive productivity goals are established and progress toward achievement of these goals is tracked, NOAA should expand the existing performance management plan for the Acquisitions function. The DOC has used a balanced scorecard to measure procurement activity for several years. This balanced scorecard provides a valuable, high-level view of procurement performance. However, we believe that a more detailed performance measurement plan would more easily enable NOAA to identify areas for improvement.

Acquisitions has worked with the line offices to establish service level agreements that specify performance metrics. An effective performance measurement plan for Acquisitions should focus on tracking the efficiency and effectiveness of the program. Tracking efficiency requires the use of operational measurements. Tracking effectiveness requires a focus on results or outcome measures.

Performance measures identified in the Draft NOAA Office of Finance and Administration Service Level Agreement (dated May 27, 2003) are:

- 90% of awards made within the standard procurement action lead time (PALT);
- Statistically relevant percentage of transactions reviewed for compliance with applicable regulations; and
- 98% of all electronic data files and invoices are generated and submitted within 8 hours of receipt.

While the measures identified in the Draft Service Level Agreement are an excellent first step, they only measure performance at a very high level. We believe that additional measures are needed in order to fully optimize Acquisitions performance. These operational measures should track the efficiency of the process, including such things as:

- Procurement Action Lead Time (PALT);
- Cycle times across procurement process phases;

- Costs associated with each phase of the procurement process;
- Accuracy of procurement system data;
- Number of revisions required;
- Percent of transactions that are considered exceptions and are handled outside of standard processes;
- Time required for monthly closing;
- Difference between budgeted spending and actual spending; and
- Time to resolve audit issues.

Performance Analysis and Improvement
As noted above, NOAA does not have a performance measurement process in place. As a result, they do not have an opportunity to use the results of such a process to drive performance improvement.

7.3 RECOMMENDATIONS AND IMPLICATIONS

7.3.1 Recommendations

RECOMMENDATION AS.1: Consolidate acquisition operations into two support groups under the direct control of the Director of Acquisitions

The current organization structure contains Acquisition teams at each for the four ASCs, as well as the staff at the Wash DC office. This recommendation would consolidate those five locations into two Acquisition operations, one in the west and one in the east

There are several advantages to consolidating from five to two locations. These include: economies of scale that can be more easily achieved by the recommended activity process improvements; a somewhat reduced requirement for management positions; enhanced opportunities for employee advancement through access to the more diverse positions that are available in larger office; and a greater ability to balance the workload and absorb cycles in customer demand.

Although best practices recommend consolidating into just one office, retaining two locations avoids the creation of a single point of failure and provides a continuity of operations alternative if one location is unable to operate for a period of time.

Both operations would report directly to the Director of Acquisitions and Grants. Currently, the field Acquisition operations report operationally to the ASC director and technically to the Director of Acquisitions and Grants. Service delivery does not require this split chain of command. Under the proposed organization, the technical and operational chains of command would be combined into one.

RECOMMENDATION AS.2: Create simplified acquisitions workstream

Currently, the contracts specialists work on both simplified acquisition and contracts; therefore, there is no specialization. We recommend that NOAA establish a separate simplified acquisition workstream. This would be a dedicated team of staff whose sole responsibility would be to process simplified acquisitions transactions. This will allow the acquisitions group to become more efficient at processing these types of transactions. Based on our workload analysis, we estimate that 39 FTE are currently devoted to processing simplified acquisitions across the NOAA acquisition offices.

The Workload Analysis deliverable also shows the most efficient NOAA office processes $13.8 million of simplified acquisitions per FTE. It is reasonable to assume that the entire acquisition function could approach this level if the internal best practices that drove this performance were identified and applied across the entire function. Meeting this performance target would allow NOAA to reduce the level of resources supporting this activity. In order to determine the impact of this change, we assumed that the Acquisitions teams within NOAA that were not at the $13.8 million level would increase their productivity to 75% of that level. Assuming that the value of simplified acquisitions remains constant at $278 million, this indicates that NOAA needs 25 FTE to process all simplified acquisition transactions. This would result in an FTE reduction of 14.

RECOMMENDATION AS.3: Create contracts workstream

Similar to the previous recommendation, the contracts specialists also work on both simplified acquisition and contracts; therefore, we recommend that NOAA create a contracts workstream and adopt the internal best practices for contracts management. Based on our workload analysis, we estimate that 64 FTE are currently devoted to processing contracts across the NOAA acquisition offices.

The Workload Analysis deliverable also shows that the most efficient office processes $8.3 million of contracts per FTE. It is reasonable to assume that the entire acquisition function could approach this level if the internal best practices that drove this performance were identified and applied across the entire function. Meeting this performance target would allow NOAA to reduce the level of resources supporting this activity. Similar to the analysis performed for the acquisition workstream recommendation, we assumed that the teams that were not at the $8.3 million level would increase their productivity to 75% of that level. Assuming that the value of contacts remains constant at $278 million, this indicates that NOAA needs 58 FTE to process all contracts transactions. This would result in an FTE reduction of 7.

RECOMMENDATION AS.4: Increase customer outreach

Some of the current customer dissatisfaction regarding Acquisitions is due to a lack of understanding in the NOAA customer community of acquisition policies and

procedures. In addition, this lack of understanding by customers creates the need for additional support by the acquisitions staff. As a result, we recommend that NOAA increase the amount of customer outreach it provides to its acquisitions customers. A frequent and formalized series of customer outreach sessions would proactively address and mitigate these issues.

These programs would focus on the role of contracting officers in the acquisitions process, and the policies that the NOAA Acquisitions group is required to follow. It is recommended that one FTE be added to the Headquarters office to coordinate and manage this activity.

RECOMMENDATION AS.5: Implement CSTARS/CAMS interface

The lack of integration between the CSTARS and CAMS systems is a significant problem for all of NOAA's acquisition offices. DOC is currently planning to build an interface between the two systems. Due to lack of funding, the interface will not be completed until the end of FY 05. As the largest user of CSTARS within DOC, NOAA should work to elevate the priority of the CSTARS/CAMS interface within the department, and push for having it completed by the end of FY 04. The interface will eliminate duplicative work, increase productivity, and reduce the number of data entry errors.

Based on the workload analysis, we estimate that the completion of the CSTARS/CAMS interface will increase processing efficiency and allow Acquisitions to reduce its government FTE by two. In addition, this interface will allow Acquisitions to eliminate their reliance on contractors for data entry. There are approximately two contractor FTE assigned to this task.

RECOMMENDATION AS.6: Provide in-house CSTARS support

During this study, it was evident that one of the chief causes of frustration among acquisitions staff is the CSTARS system. The primary issues are a confusing interface and an inability to generate useful reports. To overcome these issues, we recommend that a dedicated staff at Headquarters be established to provide NOAA-wide support for CSTARS. Additionally, a dedicated support team can help develop new reports that are essential for increasing management visibility into acquisitions activity.

This model is currently being used successfully at CASC. CASC has a staff member dedicated to CSTARS support, and as a result, there is a high level of satisfaction with the system among staff there. Creating the CSTARS support team will result in the addition of two FTE.

RECOMMENDATION AS.7: Increase audit and compliance support

Currently, NOAA does little to verify that acquisitions policies and procedures are adhered to throughout the organization. This is due to the lack of direct lines of

authority between the Director of Acquisitions and the ASCs, and as well to a lack of resources. While no major issues related to compliance have been identified to-date, risks do exist. Examples of risks include the awarding of contracts to unqualified vendors, or awards by staff without the proper warrants. A dedicated audit and compliance team assigned to the Headquarters office would verify that policies and procedures are being followed consistently across NOAA, and help reduce risk. The creation of this team will result in the addition of two FTE.

RECOMMENDATION AS.8: Increase staff training

Federal acquisitions staff have various training requirements that they are required to meet and currently all staff meet the basic training requirements. However, the Federal acquisitions environment is rapidly changing, and appropriate training is necessary in order to enable staff to stay current. At present, Acquisitions does not have a centralized program or budget for training. As a result, we recommend that NOAA develop a training program, and provide appropriate funding for each staff member.

There are several benefits that will be gained from a comprehensive training program, for example, an increase in staff productivity. In addition, teaching staff to leverage new acquisition tools, such as performance-based acquisition, will lower the costs of the goods and services being acquired for customers.

7.3.2 Target Organization

Currently, Acquisition Services at NOAA are delivered on both a customer-focused and a location-focused basis. The Wash DC operation is organized into four separate branches that are customer focused, while the four ASCs are primarily (but not exclusively) focused on supporting customers located in their geographic regions. For example, they support regional offices of NOAA bureaus such as NWS and NMFS, as well as regional offices of other DOC agencies such as NIST and NTIA.

The recommended staffing plan is a result of the utilization of more efficient business processes focused on core customers.

All Acquisitions staff will be located in three offices: Eastern Operations, Western Operations, and Headquarters. All three offices will report directly to the Director of Acquisitions and Grants. Both the Eastern and Western operations groups will have dedicated teams for both contracts and simplified acquisitions.

Additionally, the contracts staff at each office will be aligned to support different NOAA customer organizations. Eastern Operations will be responsible for supporting NWS, NESDIS, OAR, non-NOAA customers, and the Office of the Secretary. Western Operations will be responsible for supporting NMFS and NOS. This structure will allow Acquisitions teams to focus on the needs of individual customer organizations, and provide customers with a single point of contact for questions or issues.

7.3.3 As-Is and To-Be Comparisons of Staff and Cost

The recommended staffing plan will result in a leaner acquisition organization that is focused on its core customers and ready to utilize more efficient business processes. Total To-Be staffing for Acquisitions will be 111, a reduction of 15%. Reductions in FTE will be primarily driven by two recommendations. First, simplified acquisition processing will be consolidated and reengineered. This will affect 14 FTE. Second, consolidating and reengineering contracts processing will affect 7 FTE.

Exhibit 7-18: Total Acquisitions Annual Operating Costs for As-Is

Acquisitions *As-Is*	EASC		CASC		MASC		WASC		Wash DC		Headquarters		Total	
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost
Government Labor	11.0	$ 1,250	21.0	$ 2,386	13.0	$ 1,477	21.0	$ 2,386	52.0	$ 5,909	11.0	$ 1,250	129.0	$ 14,659
Contractor Labor	0.2	$ 16	0.1	$ 8	0.4	$ 31	0.2	$ 16	1.1	$ 86	0.0	$ -	2.0	$ 157
Variable Overhead		$ 5		$ 15		$ 13		$ 5		$ 11		$ 2		$ 51
Fixed Overhead		$ -		$ 16		$ -		$ 15		$ -		$ 730		$ 761
Total	11.2	$ 1,270	21.1	$ 2,425	13.4	$ 1,522	21.2	$ 2,422	53.1	$ 6,006	11.0	$ 1,982	131.0	$ 15,628

Notes: Calculations assume current workload and exclude effect of transition costs
All dollars are in thousands ($000s)

Exhibit 7-19: Total Acquisitions Annual Operating Costs for To-Be

Acquisitions *To-Be*	Western Operations		Eastern Operations		Headquarters		Total		Percent Change	Net Cost Differential *
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost		
Government Labor	34.0	$ 3,864	59.0	$ 6,704	18.0	$ 2,045	111.0	$ 12,613	-14%	$ 2,045
Contractor Labor	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	-100%	$ 157
Variable Overhead		$ 9		$ 12		$ 4		$ 24	-52%	$ 26
Fixed Overhead		$ 15		$ -		$ 730		$ 745	-2%	$ 16
Total	34.0	$ 3,887	59.0	$ 6,717	18.0	$ 2,779	111.0	$ 13,383	-14%	$ 2,245

Notes: Calculations assume current workload and exclude effect of transition costs.
Dollars are in thousands ($000s)
**Projected cost savings*

A project cost savings of $2,245,000 result from changes in direct staffing levels and over head costs between the current (As-Is) and future (To-Be) process-based organizational structure.

8. GRANTS MANAGEMENT

8.1 OVERVIEW OF GRANTS MANAGEMENT SERVICES

NOAA is the largest grant-making agency in the DOC, awarding over 1,500 grants, totaling $850 million in 2003. NOAA has over 40 different grants programs that are a mixture of competitive, non-competitive, formula, and institutional. The grants programs support the various scientific missions of NOAA, such as:

- Researching, monitoring and protecting the nation's fisheries and coastal environment;
- Improving weather reporting, forecasting, and natural disaster warnings; and
- Supporting research in many different oceanic and atmospheric related areas such as climate change, remote imaging, and marine mammals.

8.1.1 Service Portfolio

Grants Management services are aligned accordingly to four grants management lifecycle phases: Pre-Award, Award, Post-Award, and Closeout. Depending upon the life cycle phase, different activities are performed.

Pre-Award – Prior to grant award, Program Offices are responsible for grant program initiation, grant program announcement in the Federal Register, receipt of grant applications from applicants, evaluation and ranking of grant applications, and determination of grant awards. With the exception of the program announcement, most Pre-Award activities take place in the Program Offices. Grants Management has little visibility into this process, and typically does not become aware that awards have been made until they receive the award paperwork.

Award – Upon the Program Offices determining the institutions that will receive grants, the Grants Management office will review the Pre-Award paperwork, notify grantees, and authorize grant payments. Additionally, the grant award is first entered into the NOAA Grants System (NGS). Grants Management staff review the applications and Program Office's paperwork to ensure that the application meets the grant program requirements, that the application has been completed correctly, and that the Program Offices followed correct procedures when evaluating applications and making awards.

Once Grants Management review is complete, the awards are sent to the DOC General Counsel's Office for review. The General Counsel is required to review all awards over $100,000. After the General Counsel review, the awards are sent to the DOC Inspector General's Office to verify that the grantee is financially sound. Once its been determined that the grantee is financially sound, the awards are sent to the DOC Legislative Affairs Office who responsible for notifying the appropriate Representatives and Senators that a grant is to be awarded to an institution in their district.

Upon review by the three external offices, the Grants Management office is able to notify the grantee of their award and make the funds available. Since there is no interface between NGS and CAMS, the required data must be keyed a second time into CAMS. Once the award data has been entered into CAMS, the funds are made available via the ASAP system.

Post-Award – After Grants Management notifies grantees of their awards and funds availability, progress monitoring and reporting and financial status monitoring and reporting are the main elements of the Post-Award phase. The Program Offices are mainly responsible for these activities, and coordinate with the Grants Management office to review reports, update the NGS system, and overall grants management oversight.

Closeout - At the conclusion of all grant-related activities, both the appropriate Program Office and Grants Management will review the results of the grant ensuring that program requirements were met and that appropriate sign-offs have occurred. The grant is then closed out, and the records are sent to storage.

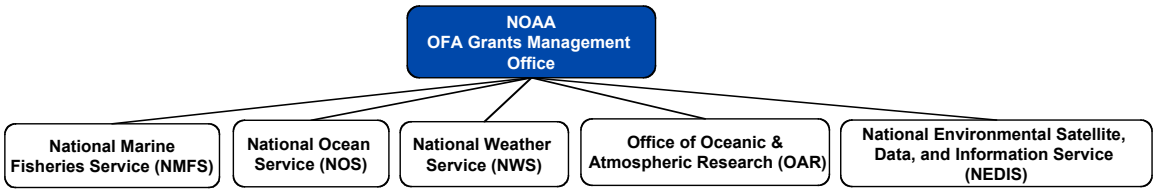
In recent years, the volume of grants activity has grown steadily. The grants award process is highly seasonal at NOAA. In a typical year, 26% of awards are made in the third quarter of the fiscal year, and 65% are made in the fourth quarter.

Recognizing the combined efforts of the Program Offices and the Grants Management office in delivering the full grants lifecycle, there is a substantial amount of the activity that takes place within the Program Offices such as grants awarding, such as developing award criteria, reviewing applications, ranking applications, making selection decisions, and monitoring the progress. The activities of the Program Offices are not within the scope of this study.

8.1.2 Customers

There are five Program Offices that support operational granting activities. All of these Program Offices are customers of the Grants Management office and receive support from that administrative function.

Exhibit 8-1: NOAA Program Offices Supported by the Grants Management Office



Grantees are typically universities, states, and non-profit organizations. Many of the grantees receiving support from the programs dispersing formula or institutional grants

are longstanding customers of NOAA and anticipate funding each year. Unlike some of the other functional areas within NOAA's finance and administrative services, the Grants Management office does not support any non-NOAA customers. NOAA Grants Management also interacts with the larger Federal grants management community. For example, NOAA has been in a leader in the Grants.gov program, and was the first agency to accept a Grants.gov electronic application.

8.1.3 Organization

The Grants Management office is located in Silver Spring, Maryland and is comprised of 20 staff. It is the primary location for grants management administrative and financial activities. The 20 full-time staff in the Grants Management office are divided into three teams: grants monitoring (4 FTEs), grants awards (5 FTEs), and a second grants awards team (5 FTEs). Additional members of the team include a grants Chief, a policy advisor, a minority serving institutions advisor, an audit specialist, and an administrative assistant. There is no separate Headquarters staff for Grants Management. The Chief of the Grants Management Division reports directly to the Director of Acquisitions and Grants, and all of the planning and oversight functions take place in that office. MASC is the only other NOAA office that provides support to these activities. Approximately three members of the MASC contracts group devote part of their time to grants management activity. It seems clear that while grants management is a highly visible function, its relatively low staffing level provides only limited opportunities for increasing productivity for the finance and administrative services.

8.1.4 Staffing and Costs

Exhibit 8-2 details the FTEs and costs for both government employees and contractors that directly supported Grants Management for 2002 and 2003.

Exhibit 8-2: As-Is Total Grants FTEs and Costs

GRANTS – TOTAL GRANTS						
	WASH DC		MASC		TOTAL	
	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*
Government FTE	20.0	20.0	1.0	1.0	21.0	21.0
Government Cost ($000s)	$ 1,180	$ 1,499	$ 55	$ 55	$ 1,235	$ 1,554
Contractor FTE	0.40	0.20	-	0.10	0.40	0.30
Contractor Cost ($000s)	$ 36	$ 16	-	$ 5	$ 36	$ 21
Total FTE	20.4	20.2	1.0	1.1	21.4	21.3
Total Cost ($000s)	$ 1,216	$ 1,515	$ 55	$ 60	$ 1,271	$ 1,575

Notes: Dollars in thousands ($000s)
Costs are unburdened labor
**FY 2003 is adjusted data*

8.2 FINDINGS AND CONCLUSIONS

8.2.1 Workload and Productivity Analysis

8.2.1.1 Services Selected for Detailed Analysis

Grants Management is comprised of two primary services, Grants Awards and Grants Administration. Grants Management currently devotes 52% of its efforts to grants awards and 48% of its efforts to grants administration. This is explained in detail in Deliverable One: Workload Analysis, issued on November 17, 2003. The activities that support Grants Awards are: processing awards, training customers, and new program establishment. Grants Administration is supported by the following activities: recording transactions, monitoring compliance, conducting audits, and closeout. Moreover, an analysis of the operational productivity data is provided.

8.2.1.2 Internal Benchmarking

Grants Awards

Exhibit 8-3 shows the number of FTEs and total costs for the Grants Awards activity for 2002 and 2003. The data indicates that while costs have risen for both Wash DC and MASC between the years 2002 and 2003, the number of FTEs has remained constant for Wash DC. Further analysis would be required to identify the cause of this.

Exhibit 8-3: Grant Awards FTEs and Costs

GRANTS – GRANTS AWARDS						
	WASH DC		MASC		Total	
	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*
Government FTE	12.5	10.1	0.8	0.9	13.3	11.0
Government Cost ($000s)	$ 739	$ 758	$ 41	$ 47	$ 780	$ 805
Contractor FTE	0.1	0.1	0	0.1	0.1	0.2
Contractor Cost ($000s)	$ 13	$ 5	0	$ 3	$ 13	$ 9
Total FTE	12.7	10.2	0.8	1.0	13.4	11.1
Total Cost ($000s)	$ 752	$ 763	$ 41	$ 51	$ 793	$ 814

Notes: Dollars are in thousands ($000s)
Costs are unburdened labor
**FY 2003 is adjusted data*

Grants Administration

Exhibit 8-4 details the FTEs and costs for the Grants Administration activity for 2002 and 2003. The data indicates that the staffing for Wash DC decreased from 2002 to 2003 by 2.4 FTEs for government staff (about 19%), but that the cost increased approximately 3%. There is not have adequate information to identify the cause of this increase. It may be that the GS-level of the new staff members has contributed to the increase in the cost of labor. If so, it would be useful to consider whether the appropriate level of staff is currently assigned to the work. It would appear from the change at MASC that the reduction from 2002 to 2003 is consistent, although the numbers are small.

The number and value of grants awards have increased substantially over the past few years. Due to the lack of detailed data, it is not possible to completely understand how the increase in FTEs and costs tracks across the period from 2002 to 2003. However, staff in the grants offices indicate that the levels will continue to increase. If the trend indicated by the cost increases at Wash DC continues, this will be a source of potential difficulty for the organization. Participation in the Federal Grants.gov initiative may be part of an answer to addressing these continued increases.

Exhibit 8-4: Grants Administration FTE and Costs

GRANTS – GRANTS ADMINISTRATION						
	WASH DC		MASC		Total	
	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*
Government FTE	7.5	9.9	0.2	0.1	7.7	10.0
Government Cost ($000s)	$ 442	$ 741	$ 14	$ 7	$ 455	$ 748
Contractor FTE	0.3	0.1	0	0	0.3	0.1
Contractor Cost ($000s)	$ 23	$ 11	0	$ 2	$ 23	$ 12
Total FTE	7.8	10.0	0.2	0.1	8.0	10.2
Total Cost ($000s)	$ 464	$ 752	$ 14	$ 9	$ 478	$ 761

Notes: Dollars are in thousands ($000s)
Costs are unburdened labor
**FY 2003 is adjusted data*

Productivity Data

This section contains an analysis of the operational data for the Grants Management function. Productivity measures include both FTE and cost. There are about 20 FTE performing grants activities in Wash DC versus one FTE at MASC. There is no separate group at MASC that is dedicated to grants management activities; rather three members of the acquisitions staff devote part of their time to supporting grants management. These three part-time FTE add up to roughly one FTE.

As noted in the Exhibit 8-5, the total number of awards completed by each FTE is comparable, about 71 at Wash DC versus 65 at MASC annually. But the difference in the award value is worth noting. The award value per FTE at MASC is more than twice that of an award made by Wash DC. This is due to the nature of the cooperative agreement program.

The MASC office only supports one grants program - Cooperative Agreements with Joint Institutes. These are typically long term (five year) awards to universities to facilitate and enhance scientific research between the Federal Government, various universities, and non-profit research institutions. Examples include the Cooperative Institute for Research in Environmental Sciences at the University of Colorado, and the Cooperative Institute for Marine and Atmospheric Studies at the University of Miami. There are currently twelve cooperative agreements in place.

The MASC office is able to process a high dollar value of cooperative agreement awards for two reasons. First, the cooperative agreements are standardized, which simplifies the awards and administration process. Second, they are able to bundle large numbers of individual grants into a smaller number of individual awards.

Exhibit 8-5: Grants Award Activity per FTE

GRANTS – AWARD ACTIVTY PER FTE			
	WASH DC	MASC	Total
Award Value ($000s)	$ 747,381	$ 107,000	$ 854,381
Award Value per FTE ($000s)	$ 36,999	$ 97,273	$ 40,140
Awards	1,434	72	1,506
Awards per FTE	71.0	65.5	70.8

Note: Dollars are in thousands ($000s)

8.2.1.3 External Benchmarking

NOAA's Grants Management function was benchmarked against three other agencies: the National Institutes of Health (NIH), the National Science Foundation (NSF), and the Department of Homeland Security's Office for Domestic Preparedness (ODP).

The grants benchmarking study indicates great disparity among the participating agencies. The value of awards per FTE in the organizations studied ranged from $8 million to $134 million. Of the participating benchmarking agencies, NIH and NSF are most similar to NOAA. As Exhibit 8-6 shows, based on award value per FTE, NIH is 24% more productive than NOAA, and NSF is 310% more productive that NOAA. Due to a lack of time, Booz Allen was not able to determine the cause of these wide variations. However, it is clear that opportunities to achieve increased efficiencies should be examined with the expectation that performance can be improved.

Exhibit 8-6: Value of Awards Per FTE

Agency	Value of Awards per FTE (000)
NOAA	$ 40,140
NIH	$ 49,716
NSF	$ 164,605

Note: Dollars are in thousands ($000s)

8.2.2 Customer Service Satisfaction Analysis

The primary customers for the Grants Management function are the government employees within NOAA's five operational grant Program Offices. The rating scale for Customer Satisfaction is based on a 1-5 Likert scale[7]. The customer satisfaction results,

[7] Rating Scale for Customer Satisfaction Survey:
1. Services **seldom** meets your needs in a timely manner and are free from errors

reported by average rating scores, reflect the data collected from both surveys Exhibit 8-7.

Exhibit 8-7: Comparison of Customer Satisfaction Survey Results

Grants Management	EASC	CASC	MASC	WASC	WASH DC	TOTALS
Internal Customers			3.6		3.0	3.3
External Customers					5.0	5.0
All Customers			3.6		3.1	3.4

The results of the Customer Satisfaction survey for Grants Management indicate that there is substantial room for improvement, particularly in the Wash DC office. Most of the issues identified center on a lack of timeliness and responsiveness. As a result, our recommendations are focused on areas that will allow Grants Management to improve the quality of its service.

The NOAA goal for processing grant applications is 49 days. This goal applies to the period that begins at the time that an award is received in the Grants Management office from a Program Office. For FY 03, 34% of the awards were processed in that time period. As noted in the Benchmarking Analysis deliverable, we have been able to determine the following about other agencies:

- For FY 2003, NSF had a target processing time of 30 days, and an actual processing time of 14 days;
- NIH has a goal of processing grants within 30 days; and
- For FY 2003, the EPA had a goal of processing grants within 60 days. For FY 2004, that goal is being lowered to 57 days.

This indicates that NOAA is within the range of other agencies. However, with the introduction of the Grants.gov and the adoption of Grants Online initiative, it is likely that processing times will decline. The attention directed to this functional area has increased markedly in recent years, and it may be expected that the increased use of technology will have a substantial impact on cycle times in the future.

Based on the ABC study, there are two grants management activities -Grants Awards and Grants Administration. Rather than two discrete services, these activities represent all work that takes place over the grants management lifecycle. These activities represent the standard components that we would expect to see in a grants-making organization. Regarding effectiveness, as noted previously, the customer satisfaction survey indicates that Grants Management customers believe that there is substantial room for improvement.

2. Services **sometimes** meet your needs in a timely manner and are free from errors
3. Services **often** meet your needs in a timely manner and are free from errors
4. Services **usually** meet your needs in a timely manner and are free from errors
5. Services **always** meet your needs in a timely manner and are free from errors

As noted in the Deliverable Three: Recommendation for Cost-Effective Service Improvement, December 15, 2003, NOAA has already identified several performance related issues related to Grants Management. Many of these are currently being addressed through changes to policies and business processes, and through the introduction of a new application system (i.e. Grants Online). We believe that Grants Management should also adopt a strategy for continuous quality improvement, so that they can build on the work that is currently being done.

8.2.3 Management Process Analysis

Planning and Budgeting

Grants Management mangers indicated during interviews that the planning and budgeting process is an area that should be improved. The biggest challenge to effective planning and budgeting has been the lack of an approved budget at the beginning of the fiscal year. This impacts Grants Management customers, because without a final budget they are unable to determine final funding levels for grants programs. During the last several years, NOAA has not received an appropriation until the end of the 2nd quarter or the beginning of the 3rd quarter of the fiscal year. Obviously, NOAA does not have the ability to control when Congress approves their budget. However, it is important to be aware that delays in approving budgets can have a negative impact on the planning process.

Workload Forecasting

In recent years, the volume of grants activity has grown steadily. As shown in Exhibit 8-8, from 2000 to 2003 the volume of grants increased 45%, and the value of grants awarded grew 74%. Grants staffing during that period has remained relatively constant.

Exhibit 8-8: Grants Trend

GRANTS		
Fiscal Year	Number	Value (Millions)
2000	1,036	$ 490
2001	1,223	$ 767
2002	1,498	$ 906 *
2003	1,506	$ 854

Note: Multiple grants totaling $150M for one-time grant program were made in 2002.

The grants award process is highly seasonal at NOAA. In a typical year, 26% of awards are made in the third quarter of the fiscal year, and 65% are made in the fourth quarter.

Policy Development and Documentation

Grants Management currently has one manager assigned to policy development and documentation. This represents 5% of the overall Grants Management staffing level.

This grants advisor position was created and filled in FY 03. The grants advisor is primarily responsible for reviewing and updating existing grants management policies. Current priorities include revising policies that will improve the timeliness and effectiveness of the grants management process. This model will not change in the "to be" organization structure.

Exhibit 8-9: As-Is Operations vs. Policy/Oversight Breakdown

	EASC	CASC	MASC	WASC	WASH DC	HQ	TOTAL FTEs	TOTAL PERCENTAGE
GRANTS MANAGEMENT	0.0	0.0	1.1	0.0	20.2	0.0	21.3	100.0%
OPERATIONS	0.0	0.0	1.1	0.0	19.6	0.0	20.7	97.2%
POLICY / OVERSIGHT	0.0	0.0	0.0	0.0	0.6	0.0	0.6	2.8%

Note: FTEs associated with operations and policy/oversight

Process Design and Technology Utilization

Grants Management activity is only performed at the Wash DC and MASC offices. Due to the relatively small size of the Grants Management team (21 FTE), business processes are performed consistently. NOAA currently utilizes the NOAA Grants System (NGS) to manage all of its grants management activity. Beginning in FY 03, NOAA began development of a new grants management system, Grants Online, which will go into production in December 2004. The completion of this system is vital for the grants management function throughout NOAA. Grants Online will provide interfaces with several other systems including: Grants.gov, Commerce Administrative Management System (CAMS), and the General Counsel's system.

Implementing Grants Online will provide many benefits including: moving from a paper-based process to an automated process, eliminating duplicate data entry into multiple systems, creating an easily accessible database of grants information and providing automated workflow. In order to effectively manage the Grants Online project a PMO office was created. This office is responsible for ensuring that the project meets its objectives, that risks are identified and mitigated, and that Grants Online activity across NOAA are coordinated.

Grants Online users will include the Grants Management staff and staff from various grants program offices. The planned interface with Grants.gov will provide increased visibility to NOAA grants from a single portal and should provide accurate, complete, and timely "find and apply" capabilities for grantees.

Staff Training and Organizational Development

During the past several years, Grants Management has had a limited amount of funds available for staff training. However, our interviews with Grants Management managers did not uncover any critical, immediate needs for staff training.

In order to enhance understanding of the grants management process throughout NOAA, the Grants Management office offers training programs to the Program Offices. These programs focus on the policies and procedures that apply to awarding grants. However, due to constraints on staff time and travel costs, these programs are offered

infrequently. As a result, program office staff members are not always up-to-date on issues that impact their grants management activities.

Performance Measurement, Reporting, and Accountability
In order to ensure that aggressive productivity goals are established and progress toward achievement of these goals is tracked, NOAA should expand the performance management plan for the grants function. Grants Management has worked with the line offices to establish service level agreements that specify performance metrics. An effective performance measurement plan for Grants Management should focus on tracking the efficiency and effectiveness of the program. Tracking efficiency requires the use of operational measurements. Tracking effectiveness requires a focus on results or outcome measures.

Performance measures identified in the Draft NOAA Office of Finance and Administration Service Level Agreement (dated May 27, 2003) for Grants Management are:

- 85% of agreements awarded within 49 calendar days; and
- 85% of administrative actions completed within 60 calendar days, excluding close-outs.

While the measures identified in the Draft Service Level Agreement are an excellent first step, they only measure performance at a very high level. Additional measures are needed in order to fully optimize Grants Management performance. These operational measures should track the efficiency of the process, including such things as:

- Cycle times across process phases;
- Costs associated with each phase;
- Adherence to timelines;
- Accuracy of competed work;
- Number of revisions required; and
- Percent of transactions that are considered exceptions and are handled outside of standard processes.

The results of these measures would be used to drive increased process efficiencies through streamlining process steps, enabling processes with technology, improving communications, enforcing timelines, and providing staff training.

Performance Analysis and Improvement
Based on an internal study conducted in FY 02, several opportunities for improvement were identified in the grants management area. As a result, plans have been developed to address the issues identified. For example, NOAA is working to distribute the grant application process over an entire 12-month period. Spreading the grants application

process over the entire year would help to reduce the flood of applications received at the end of the fiscal year. By reducing this year-end backlog, Grants Management would be able to improve both employee and customer satisfaction, provide faster cycle times, and increase processing capabilities.

NOAA is also working to identify ways to issue multi-year awards and to employ a streamlined review process for the option years. This would reduce the resulting workload in both the Program Offices and in the Grants Management function. By allowing award decisions to span multiple years, the amount of material that needs to be reviewed and approved by Grants Management will be reduced. As a result, there would be an overall increase in processing capacity that would allow the Grants Management division to accommodate more work without increasing staff levels.

8.3 RECOMMENDATIONS AND IMPLICATIONS

8.3.1 Recommendations

RECOMMENDATION GM.1: Transfer responsibility for the Cooperative Agreement activity from MASC to Headquarters

Cooperative Agreements are currently managed by three staff members on a part-time basis. The MASC office his responsible for Cooperative Agreements for historical reasons; some of the first universities to participate in the program were located in Colorado. In total, MASC devotes less than one FTE to this activity. As a result, it is not possible to achieve any economies of scale on this program. Moving the program to the Eastern Operations office would result in only a small, incremental increase to that office's workload. Benefits would include closer management oversight of the Cooperative Agreement program and more flexibility in staff allocation. Moving this position supports a more clearly aligned functional approach to service delivery.

RECOMMENDATION GM.2: Deliver additional training at program offices

The Grants Management office should conduct more training outreach to the Program Offices. Currently, the Grants Management office offers selected training programs to the Program Offices. These programs focus on the policies and procedures that apply to awarding grants. However, due to constraints on staff time and travel costs, these programs are offered infrequently. As a result, Program Office staff members are not always up-to-date on issues that impact their grants management activities.

Additional training will improve the quality of the reviews that are performed by the program offices and reduce the number of awards that need additional processing by Grants Management due to errors or omissions. Other lower cost avenues can be explored to augment training, such as newsletters or 'hot topic' conference calls. This will result in awards being issued sooner, which will lead to an increase in customer satisfaction. The additional outreach programs should be conducted by current senior Grants Management staff and will not result in an increase in FTEs.

RECOMMENDATION GM.3: Leverage Grants Online capabilities within NOAA to improve Program Office Business Processes

We recommend that NOAA conduct a study of the end-to-end grants process. The work performed by the Grants Management office represents only a small part of the total effort that NOAA expends on its grants programs. We estimate that at least 70% of the overall effort takes place in the Program Offices of the various NOAA agencies. The Program Offices are responsible for establishing the grants programs, developing award criteria, reviewing applications and budgets, ranking applications, making selection decisions and monitoring the progress and outcomes of the grants. In addition, the DOC General Counsel and Inspector General are involved in the awards process.

Now that a new grants management system is being developed, the timing is appropriate for NOAA to determine if the end-to-end grants process is working as efficiently and effectively as possible. A study of the NOAA-wide grants process will help uncover opportunities for process improvements. Such opportunities could result in: redistributing work from or to the Program Offices; eliminating non-value-added activities; expediting "hand offs" between offices; enhanced balancing of the workload across the fiscal year; and standardization of policies and procedures. Implementing those opportunities for improvement should lead to cost reductions for both the finance and administrative organization and the program offices. A more standardized, streamlined process should make it possible for today's Grants Management staff to handle the current workload more efficiently and possibly avoid future staffing increases. In addition, this activity should better prepare the NOAA programs to migrate to a Grants Online environment.

In order to successfully improve the full grants management process, NOAA will have to create a full partnership with the line offices responsible for the grants programs, and ensure their willingness to improve the parts of the grants-related processes for which they have responsibility.

RECOMMENDATION GM.4: Conduct analysis to extend Grants Online DOC-wide

It is anticipated that Grants Online will be the DOC-wide grants management application. EDA, NIST, NTIA, ITA, and MBDA will migrate their own grants management activity to this system. A common application will allow NOAA to spread the fixed costs of running Grants Online over a larger number of customers and provide a valuable service to the other DOC agencies.

NOAA is the source of approximately 50% of the grants awarded by DOC. While the costs to support the other agencies are not known at this time, proper planning would allow NOAA to substantially reduce its on-going operating costs. However, there are numerous questions that will need to be addressed including:

- How much additional functionality will need to be added to the system to support other customers?
- Will the existing hardware, software, and network infrastructure support additional users?
- How much will it cost to implement Grants Online at the new customer organizations?
- What will the direct operating costs of the Grants Online system be?
- What are the overhead costs associated with Grants Online? and
- What is the appropriate cost recovery method to use?

NOAA should develop a comprehensive plan to ensure that it is correctly identifying and tracking costs and recovering the necessary fees from customer organizations for the Grants Online system. This need is common across all functions performed by the administrative and finance functions.

8.3.2 Target Organization

The Grants Management recommendations propose augmenting the As-Is staffing model slightly. The recommendations seek to shift the current Cooperative Agreement work at MASC to the Wash DC office. This will result in an increase of one FTE in that office, either through a transfer or local recruitment. Once this recommendation has been implemented, all Grants Management services, Grants Awards and Grants Administration, will be located in the Eastern Operations.

8.3.3 As-Is and To-Be Comparisons of Staff and Cost

The costs and FTEs associated with the As-Is structure are shown in Exhibit 8-10. The improvement activities already underway at NOAA will help improve the productivity and quality of the grants management function. If the number of grants issued continues to rise, as expected, and NOAA is able to support this increased requirement with current staffing levels, this will represent an increase in productivity. However, because these productivity gains cannot be accurately estimated at this time, they are not captured as financial benefits in this study.

Exhibit 8-10: Total Grants Mgt Annual Operating Costs for As-Is

Grants	EASC		CASC		MASC		WASC		Wash DC		Headquarters		Total	
As-Is	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost
Government Labor	0	$ -	0	$ -	1.0	$ 94	0	$ -	20.0	$ 1,880	0	$ -	21.0	$ 1,974
Contractor Labor	0	$ -	0	$ -	0.1	$ 7	0	$ -	0.2	$ 14	0	$ -	0.3	$ 21
Variable Overhead		$ -		$ -		$ 3		$ -		$ 27		$ -		$ 29
Fixed Overhead		$ -		$ -		$ -		$ -		$ -		$ 150		$ 150
Total	0	$ -	0	$ -	1.1	$ 104	0	$ -	20.2	$ 1,920	0	$ 150	21.3	$ 2,174

Notes: Calculations assume current workload and exclude effect of transition costs.
Dollars are in thousands ($000s)

We propose only minor changes to the Grants Management staffing model. As explained above, we recommend that the Cooperative Agreement work that is currently being done at MASC be shifted to the new Eastern Operations office. This will result in an increase of one FTE at that office. This position would be filled either through a transfer or through local recruitment. Once this recommendation has been implemented, all Grants Management activity will be located in the Eastern Operations office. The costs and FTEs associated with the new structure are shown in Exhibit 8-11.

Exhibit 8-11: Total Grants Mgt Annual Operating Costs for To-Be

Grants *To-Be*	Western Operations		Eastern Operations		Headquarters		Total		Percent Change	Net Cost Differential *
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost		
Government Labor	0	$ -	21.0	$ 1,974	0	$ -	21.0	$ 1,974	0%	$ 0
Contractor Labor	0	$ -	0.0	$ -	0	$ -	0.0	$ -	-100%	$ 21
Variable Overhead		$ -		$ 28		$ -		$ 28	-5%	$ 2
Fixed Overhead		$ -		$ -		$ 150		$ 150	0%	$ -
Total	0	$ -	21.0	$ 2,001	0	$ 150	21.0	$ 2,151	-1%	$ 23

Notes: Calculations assume current workload and exclude effect of transition costs
Dollars are in thousands ($000s)
**Projected cost savings*

A project cost savings of $23,000 result from changes in direct staffing levels and over head costs between the current (As-Is) and future (To-Be) process-based organizational structure.

9. WORKFORCE MANAGEMENT

9.1 OVERVIEW OF WORKFORCE MANAGEMENT

The Workforce Management function includes five services areas as defined in the ABC (Activity Based Costing) study. Currently, these services are provided by the four regional administrative support centers and by the Workforce Management Office (WMO) in the Washington, DC area. WMO's operational activities place it in the role of a "fifth ASC." In addition to performing operational activities, WMO staff perform NOAA-wide policy activities related to all HR services. WMO staff also support PPBS and ABC functions for the entire workforce management business line, including the ASC HR Divisions, Diversity, and Civil Rights. The Office of Civil Rights and the Office of Diversity, the latter of which falls under Workforce Management organizationally, perform policy development and oversight activities for all of NOAA. The Office of Civil Rights reports to the Chief Administrative Office, but is included as part of the Workforce Management analysis because ABC data for that function was collected as part of WFM.

9.1.1 Service Portfolio

The scope of services within this functional area includes Competitive Placement Services, Employee Services, Management Services, Bargaining Agreement & Negotiations, and Case Handling. These services account for most of the traditional Workforce Management (WFM) services typical of most Federal Agencies. However, unlike a growing number of Federal Agencies, NOAA's Workforce Management function does not provide Strategic Human Resources, Training and Development and Performance Management services. For example, while there is a WFM activity identified as "Training and Development" in the ABC study, the National Weather Service also provides staff training and development to NOAA. Similarly, very limited resources are devoted to Strategic HR and Performance Management activities at NOAA. Based on interview data collected from WFM personnel in the support centers, as well as ASC customers, there is evidence that staff are assigned to some of these activities in the line offices.

9.1.2 Customers

The Workforce Management function serves a wide variety of geographically dispersed customers. An analysis of customer data using 2003 data provided by WMO and the individual ASCs indicates the following:

- Although the customer base for WMO-Operations (the fifth ASC) is located within a 150-mile radius, this is not typical of the customer footprint of the other ASCs.
- EASC HR services approximately 2283 customers, of which 93% (2124) are NOAA customers. Collectively, EASC HR services approximately 674 (32%)

NOAA customers in the tri-state region of Virginia, Delaware, and North Carolina.

- CASC HR services approximately 2320 customers, of which 89% (2065) are NOAA employees. About 13.4% (334) of CASC HR's total customers are located in the Kansas City metropolitan area (includes NOAA and non-NOAA customers).
- Not including Time & Attendance customers, MASC's HR division services a large percentage of non-NOAA customers relative to its total customer base (approximately 24% of 2198). Overall, NOAA customers make up about 75% (1647) of MASC's total HR customers. Approximately 42% (911) of MASC HR's total customers (2174) are located in Boulder.
- WASC HR services approximately 3236 customers, of which approximately 95% (3081) are NOAA staff. 1039 are located in Washington State, while 933 are located in Seattle.

Increasing the dispersion and diversity of customers served by ASCs is the "Center of Excellence" approach taken by ASCs like MASC. In this approach, a certain process (Time & Attendance) is centrally coordinated and administered for customers of multiple HR organizations (HRMO, CASC, and MASC).

9.1.3 Organization

Exhibit 9-1: Organizations Providing WFM Services

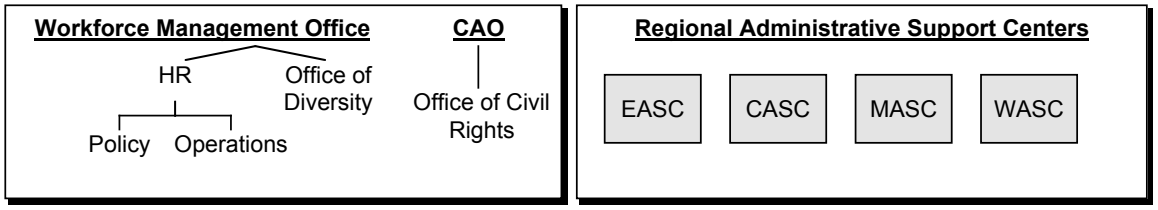


Exhibit 9-1 identifies the different organizations units that provide WFM services to NOAA line offices. While there is no administrative reporting relationship between HR staff located in the ASCs and the WMO, ASC staff do provide some policy guidance and oversight. Currently the Chiefs of HR at the ASCs report directly to the ASC Directors for appraisals, planning, and budget requests, rather than to the Director of WMO located at Headquarters. Weekly conference calls are held among all the HR leads and WMO to coordinate HR policy and discuss issues. There are significant differences in the way the ASCs have organizationally aligned services across the ASCs. While some of the ASCs have structured themselves around traditional or core HR functions, such as Hiring and Classification specialists, Employee Relations (ER) specialists, and Labor Relations specialists, others have employed the "generalist" approach to providing services. This approach requires that HR specialists be versed in

all aspects of human resource services and act as a "one-stop shop" for customers. At some ASCs, staff are assigned to specific customers and, at others, all staff serve all customers.

Some ASCs have developed specialized areas of expertise, known as "Centers of Excellence." For example, the Western Administrative Support Center (WASC) manages the nationwide Alternative Dispute Resolution (ADR) program to include ADR policy activities for NOAA. The Mountain Administration Support Center (MASC) administers the Time and Attendance process for all WMO OPS, CASC, and MASC customers (and will take over WASC and EASC customers once funding is approved for additional Time and Attendance staff at MASC). CASC oversees the Employee Assistance Program (EAP) for all of NOAA. By concentrating these activities in a single ASC, NOAA has taken advantage of economies of scale and used the specialized expertise of a small cadre of trained WFM staff to support a larger customer segment. Most policy and strategic WFM activities are conducted by WMO-HQ, including Diversity and OCR functions, which are in Washington. In addition, EASC directs policy activities specifically related to the annual calculation of Wage Marine salaries using the Military Sealift Command pay formulas. WASC has taken over the policy activities for retroactive salary payments for Wage Marines and policy activities for the national ADR program, the Pribilof Benefits Program, Department of Commerce Staffing Timeliness Measures System development, staffing programs, classification oversight, and the A-76 Management Plan Program for Personnel Processing.

9.1.4 Staffing and Costs

Exhibit 9-2: Total Workforce Management FTEs and Costs

	EASC		CASC		MASC		WASC		HQ**		WASH DC		Diversity	Civil Rights	Other	TOTALS	
	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2002	FY 2002	FY 2002	FY 2003*
Govt FTEs	17.04	20.43	14.82	19.98	22.10	28.47	22.68	31.42	14.93	17.85	26.96	33.16	6.43	8.67	0.94	**134.57**	**167.36**
Govt Cost ($000s)	$1,111.93	$1,302.41	$1,070.69	$1,402.66	$1,562.32	$2,006.47	$1,616.21	$2,172.18	$1,726.58	$1,502.45	$3,206.50	$2,790.27	$603.14	$726.76	$1,136.39	**$12,760.51**	**$13,642.73**
Contractor FTEs	0.00	3.23	0.00	0.04	0.00	0.11	0.00	0.49	0.00	0.36	0.00	0.67	5.46	22.09	1.39	**28.94**	**33.83**
Contractor Costs ($000s)	$0.00	$6.30	$0.00	$4.07	$0.00	$0.08	$0.00	$60.93	$0.00	$45.09	$0.00	$83.74	$682.17	$2,760.92	$173.91	**$3,617.00**	**$3,817.21**

Notes: Dollars are in thousands ($000s)
**Wash DC includes WMO HR Operations FTEs (the "fifth ASC")*
***Headquarters includes FTEs from the Office of Civil Rights, Office of Diversity, and WMO HR Policy*

Exhibit 9-2 shows a total of 167.4 government FTEs and 33.8 contractor FTEs supporting WFM. The only organizations with significant contract support in WFM in 2002 are OCR and Diversity at a cost of $2,760,920 and $682,170, respectively. These can be

partially attributed to Diversity's Work Life Center and OCR's use of contractors for various mandated EEO activities.

9.2 FINDINGS AND CONCLUSIONS

9.2.1 Workload and Productivity Analysis

9.2.1.1 Services Selected for Detailed Analysis

The services selected for further study for the WFM business line are Competitive Placement Services, Employee Services and Case Handling Services. These services have been selected because they consume a significant percentage of NOAA's resources, including approximately 55% of WFM government FTEs and 46% of total costs. Most of these services are currently performed at all service locations, with the exception of OCR and Diversity activities, which are included under Management Services. The services selected for review are primarily operational in nature and are performed by all of the ASCs and WMO. Together they represent about half of the resources expended by the WFM function. Bargaining Agreement Negotiation and Management Services were not selected for further review because they consume relatively few resources.

9.2.1.2 Internal Benchmarking

Competitive Placement Services
Several measures were selected to support comparison of Competitive Placement services. These measures include: FTEs, costs for services provided, number of certificates, number of hires (competitive and non-competitive), customers served (by SSN), and cycle times. A comparison of the results of this comparison is provided in Exhibit 9-3. Results in this section are rounded to nearest whole number, except where finer distinctions are required to indicate small distinctions.

Exhibit 9-3: Competitive Placements Measures Comparison

Metrics	WASH DC	EASC	CASC	MASC	WASC	Total
Certificates of Eligibility Issued	964	608	652	794	1,021	4,039
Competitive Hires	556	641	342	381	963	2,883
Customers (by SSN)	3,508	2,246	2,328	2,198	3,218	13,498
Hiring Specialists (FTEs)	8	4	2	8	6	28
HR FTEs	33	20	20	28	31	133
Direct (Unburdened) Labor Cost (Competitive Hiring, only) ($000s)	$661	$261	$148	$512	$395.71	$1,977
Total Government Labor Cost ($000s)	$2,790	$1,302	$1,403	$2,006	$2,172	$9,674
Hiring Cycle Times (days)	58	75-105	50	>35-42	90	-
a) From request to certificate issued (days)	24	30-55	3	35-42	6	-
b) From certificate to job offer (days)	34	45-60	47	N/A	26	-

Ratios	WASH DC	EASC	CASC	MASC	WASC
Ratio of HR Staff to Customers*	1:106	1:110	1:117	1:77	1:102
Cost per Competitive Hire (Total Government Labor Cost)	$5,018	$2,032	$4,101	$5,266	$2,256
Cost per Certificate Issued (Total Government Labor Cost)	$2,894	$2,142	$2,151	$2,527	$2,128

*Notes: *If MASC's Time & Attendance staff are removed from the equation, the ratios increase for MASC to approximately 1:86 for FY02 and 1:95 in FY03*
HRMO-OPS is show as Wash DC in this Exhibit
Cost shown represents unburdened labor

Employee Services

Measures selected to support internal comparison of Employee Services include: customers served (by SSN), FTEs, costs for services provided, and ratios of WFM FTEs to customers served. A comparison of measures is provided in Exhibit 9-4. Comparisons of the workload/demand, matching capacity, and productivity/efficiency metrics are shown in Exhibit 9-4: Employee Services Measures Comparison.

Exhibit 9-4: Employee Services Measures Comparison

Metrics	WASH DC	EASC	CASC	MASC	WASC	OCR	DIV.	Total
Customers (by SSN)	3,508	2,246	2,328	2,198	3,218	12,521	12,521	13,633*
WFM FTEs	33	20	20	28	31	9	6	149
Total WFM Government Labor Cost ($000s)**	$2,790	$1,302	$1,403	$2,006	$2,172	$727	$603	$11,004

Ratios	WASH DC	EASC	CASC	MASC	WASC	OCR	DIV.
Ratio of WFM FTEs to Customers Served	1:106	1:110	1:117	1:77	1:102	1:1,433	1:1,947
Cost per Employee Served	$795	$580	$603	$913	$675	$58	$48

Notes: To provide consistency with the other functional areas, HRMO-HQ is shown as HQ and HRMO-OPS is show as Wash DC in these Exhibits
**This number includes Executive staff*
*** Costs included for comparison purposes include total government labor costs (contractor costs excluded) for all workforce management services (Employee Services, Management Services, Bargaining Agreement Negotiation and Administration, Case Handling, and Competitive Placements). Management Services and Employee Services include total government labor costs for Diversity and the Office of Civil Rights as they pertain to those services*

In both Competitive Placements and Employee Services, MASC appears to have the highest ratio of FTEs to customers and the highest cost. MASC, EASC, Wash DC (WMO-OPS) and CASC employ a "generalist" structure in which HR Specialists are aligned with customers and provide services ranging from Employee Relations to Recruitment and Placement, including the handling of grievance and performance cases. OCR and Diversity provide employee services, such as the Work Life Center, to all NOAA employees. Therefore, the costs are distributed across the organization resulting in a lower cost and higher ratio of FTEs to customers served.

Case Handling Services

Measures selected to support internal comparison of Employee Services include: labor hours, customers served (by SSN), HR FTEs, costs for services provided, cost per employee served, and ratios of HR FTEs to customers served, and ratio of labor hours to customers served. A comparison of measures is provided in Exhibit 9-5. Comparisons of the workload/demand, matching capacity, and productivity/ efficiency metrics are shown in Exhibit 9-4: Employee Services Measures Comparison.

Exhibit 9-5: Case Handling Measures Comparison

Metrics	WASH DC	EASC	CASC	MASC	WASC	Total
Customers (by SSN)	3,508	2,246	2,328	2,198	3,218	13,498
Number of Labor Hours	2,292	2,353	2,267	2,414	4,038	13,364
HR FTEs	33	20	20	28	31	133
Total WFM Government Labor Cost ($000s)	$2,790	$1,302	$1,403	$2,006	$2,172	$9,6749

Note: Dollars are in thousands ($000s)

Ratios	WASH DC	EASC	CASC	MASC	WASC
Ratio of Labor Hours to Customers Served	1:1.53	1:0.95	1:1.03	1:0.91	1:0.80
Ratio of HR FTEs to Customers Served	1:106	1:110	1:117	1:77	1:102
Cost per Employee Served	$ 795	$ 580	$ 603	$ 913	$ 675

Notes: To provide consistency with the other functional areas, HRMO-OPS is show as Wash DC in these Exhibits
** Costs included for comparison purposes include total government labor costs (contractor costs excluded) for all workforce management services (Employee Services, Management Services, Bargaining Agreement Negotiation and Administration, Case Handling, and Competitive Placements). Management Services and Employee Services include total government labor costs for Diversity and the Office of Civil Rights as they pertain to those services*

Case Handling is comprised of small number of activities related to the management and investigation of performance-based actions, disciplinary actions, and adverse actions. The nature, processes, timelines, and resources for each of these actions vary significantly, which makes it difficult to draw conclusions based on comparisons. NOAA's Office of General Counsel often provides advice and counsel as well, during the case handling process.

As labor hours are the only metric used to capture workload and productivity in the ABC data for Case Handling, the resulting analysis of demand and productivity is limited. Only CASC was able to provide meaningful transaction data on the number, type, and resources allocated to cases. No comparisons can be made between the ASCs and HRMO in terms of workload and productivity because no other ASC reported tracking this data systematically.

9.2.1.3 External Benchmarking

Based on the identified performance drivers and units of measure, Exhibit 9-6 presents a comparative analysis of workload/demand, the matching capacity, and productivity/efficiency of NOAA's ASCs and HRMO with the three benchmarking partners. Data was obtained from three benchmarking partners: Dept. of Education, the USDA Forest Service, and the U.S. Geological Survey.

Exhibit 9-6: Performance & Measures Comparisons

	Metrics	Benchmark Results							NOAA Results				
		Dept of ED	USDA-Forest Service	USGS					WASH DC	EASC	CASC	MASC	WASC
Overall	Ratio Total Employees to HR Staff	54:1	67:1	50:1	95:1	102:1	99:1	84:1	106:1	110:1	117:1	77:1	102:1
	Total Number of Manager/HR Staff	7:1							144:1	13:1	12:1	9:1	10:1
	Ratio of Total Employee-to Hiring Staff	122:1		275:1	261:1	148:1	162:1	194:1	429	524	1,283	292	535
Competitive Placements	Cost Per Competitive Hire	$5,323							$5,018	$2,032	$4,101	$5,266	$2,256
	Cost Per Certificate of Eligibility	N/A							$2,894	$2,142	$2,151	$2,527	$2,128
	Hiring Cycle Time*	20-25 days	23-30 days	3 weeks					58 days	75-105 days	50 days	>35-42 days	90 days
	a) Request To Certificate	5-10 days	N/A	1 week					24days	30-55 days	3 days	35-42 days	64 days
	b) Certificate to Job Offer	15 days		2 weeks					34days	45-60 days	47 days	N/A	26days
	Total Number of Manager/Hiring Staff	16:1											
Case-Handling (ER-LR), Bargaining Agreement	Ratio of Employee to ER-LR Specialists	478:1		549:1	784:1	531:1	379:1	539:1	106:1	110:1	117:1	77:1	102:1
	Number of Cases per ER-LR Specialists	319											
	Cost Per Case	$265											
	Ratio of Customer (SSN) to Benefits Specialists	919:1											

Note: IPMA survey of 167 Public Sector organizations and report cycle times of between 20-30 days

With respect to human resource productivity and workload, it appears that most of NOAA's ASCs have higher "customers served to HR staff" ratios than industry and government averages, even with non-NOAA customers removed. Typical industry averages are generally at 100 staff to employees served, or higher. The remainder of the ASCs fall within the average range. This figure includes operational staff from the four ASCs and WMO-Operations and does not include OCR, Diversity, or WMO HQ/Policy FTEs. While this is one indicator of workload, it does not tell the whole story with regard to quality and service levels. In fact, the higher number of customers served per HR staff person may well be contributing to a decrease in quality and services at the ASCs.

9.2.2 Customer Service Satisfaction Analysis

As part of the data collection interviews a high-level customer survey was conducted to assess the level of customer satisfaction with overall workforce management services. Customers were asked to rate the quality of the HR services provided by their ASC using a 1-5 scale, where 1 is the lowest rating and 5 is the highest rating. The results are shown in Exhibit 9-7.

Exhibit 9-7: Comparison of WFM Customer Satisfaction Survey Results

Workforce Management	EASC	CASC	MASC	WASC	HQ	TOTALS
Internal Customers	3.7	4.1.	4.8	3.5	2.9	3.8
External Customers	2.0	4.6	4.6	3.5	N/A	3.7
All Customers	3.6	4.2	4.7	3.5	2.9	3.8

A follow-up, more focused assessment of the level of customer satisfaction with specific workforce management/human resource services was also conducted. Both open-ended and standard response questions were asked. The responses to the standard supplemental questions are provided in Appendix D of Deliverable One: Workload Analysis, November 17, 2003.

The surveys indicate that MASC customers are generally satisfied with the level of service provided to them. However CASC, EASC, and WASC (as well as HRMO, via informal conversations) received mixed reviews. Many customers noted that the level of support varied by HR specialist and noted a general downward trend in customer service over the past five to ten years. HR Specialists are generally considered to provide "adequate," although not superior, support, and are often perceived as not responsive to requests. As a result, some customers have hired their own internal HR personnel to support line office staff.

Customers expressed dissatisfaction with the lack of qualified personnel in the ASCs, lack of resources for travel and training, turnover and retirement of highly experienced staff. There is a general perception that staff are overwhelmed and stretched too thin to provide timely and quality support. For example, WASC has established internal performance targets for recruitment and hiring (99 days from announcement to job offer). While WASC is meeting these targets approximately 80% of the time, WASC customers identified quality issues associated with this process, namely the identification of unqualified candidates and a consistent lack of response from HR specialists. Customers at CASC noted similar issues with regard to the rating system and qualifications of candidates for positions.

ASCs receiving high marks were cited as being highly accessible, responsive, and willing to meet whatever timelines and deadlines were required to ensure customer satisfaction. MASC, for example, has been able to consistently meet a two-week hiring timeline for NWS meteorologists. At MASC, HR specialists are seen as highly experienced and resourceful in researching customer questions and finding innovative resolutions. Customers supplement ASC HR resources by paying for HR specialists to travel to annual managers conferences. Their goal is for HR staff and line office managers to get to know one another better, to open and strengthen the lines of communication, and to provide quality service.

Some issues exist with regard to hiring and personnel request cycle times. Customers are concerned about the cycle times (as well as the quality of candidates selected) for the hiring process because some customers have time-sensitive requirements. The NWS, for example, runs a 24/7 operation that requires quick turnaround to fill positions. HR staff at the ASCs have worked with customers to develop templates for the Position Description Library that can be used for the most commonly filled positions. This has helped reduce actual cycle times for customers. This is one indication of how standardization can decrease cycle times. Standardization cannot address all issues, however. Some unique positions (e.g., special researchers) continue to create problems

for HR specialists and hiring managers. These issues may be addressed in the future through enhancements to COOL and training for system users. The automation of the SF 52/50 should help improve cycle times, as will consolidating control over the HR function. This should facilitate the standardization of cycle time targets and support consistent reporting of results across NOAA.

The services provided by Workforce Management include Competitive Placement Services, Employee Services, Management Services, Bargaining Agreement and Negotiations, and Case Handling. The activities that correspond to these services account for most of the traditional Workforce Management (WFM) services typical of most Federal Agencies. Currently, NOAA's HR staff is overwhelmingly focused on activities that are considered to be traditional HR service offerings (hiring, employee relations, labor relations, case handling, etc.) for most Federal agencies. Best Practice Human Resource organizations, including a growing number of Federal Agencies, however, typically provide a broader range of services – including more strategic services as well as transactional services. These services could include: Strategic Human Resources, Training and Development and Performance Management. With its current staff levels and deployment approach, the WFM group does not have the additional resources required to provide these services. This limits the effectiveness of the organization and prevents it from enhancing its value to its customers.

9.2.3 Management Process Analysis

Planning and Budgeting

Workforce Management budgeting activities are generally performed by each of the ASCs, WMO (for the Office of Diversity and HQ HR), and the Chief Administrative Officer (for the Office of Civil Rights). In the current environment, there is no way for the Director of Workforce Management to control the funds required to allocate and rationalize resources appropriately across the ASCs or to plan for peaks and valleys in workload. The ASCs, and their corresponding HR functions, receive varying levels of funding for staffing, technology, travel, and special programs. This contributes to uneven levels of service among ASCs.

While the Workforce Management Office (WMO) participates in the development of the NOAA-wide Strategic Plan (which includes Human Capital as a resource), the organization does not currently have in place a Strategic Plan for NOAA Human Resources. The HR functions at the ASCs do not contribute to such a plan. The limited strategic planning that goes on in Workforce Management is a result of resource constraints and a growing emphasis on operational, rather than strategic, activities performed by the HR organization. This is a further result of the lack of staff to pursue more strategic issues and a lack of central control over HR. Strategic and human capital planning cannot be adequately addressed in the current environment.

Workload Forecasting
While the line offices perform workforce planning and workforce analysis functions rather than WMO, they do engage WMO for these efforts. There is also a Workforce Management Committee that is trying to resolve the issue of a lack of a corporate (prioritization) approach to WFM. We recommend that the Office of Human Resources under the proposed organizational structure employ dedicated staff for the purpose of coordinating and administering activities related to strategic workforce and human capital planning.

Policy Development and Documentation
Like strategic planning, policy activities at the WMO have taken a back seat to operational activities due to a lack of resources to perform the work. Policy development and documentation activities take place at the WMO HQ level. However, at the request of WMO, some limited policy development occurs in WASC and EASC with regard to wage marine salary.

Exhibit 9-8: As-Is Policy/Oversight vs. Operations Breakdown

	EASC	CASC	MASC	WASC	WASH DC	HQ	TOTAL FTEs	TOTAL PERCENTAGE
WORKFORCE MANAGEMENT	23.7	20.1	28.6	31.5	34.0	61.9	**199.8**	**100.0%**
OPERATIONS	23.2	20.1	28.6	27.5	34.0	28.4	**161.8**	**81.0%**
POLICY / OVERSIGHT	0.5	0.0	0.0	4.0	0.0	33.5	**38.0**	**19.0%**

Note: FTEs associated with operational and policy/oversight

Although the WMO is responsible for communicating HR policy to the ASCs, the indirect reporting relationship between the Director of WMO and the heads of HR at the ASCs contributes to an inconsistent interpretation of HR policies. As such, performance of traditional HR processes and activities vary somewhat from one ASC to another. Centralized control of the HR function at the Office of Human Resources is needed to help standardize policy implementation and ensure accountability at the Operations Centers.

Process Design and Technology Utilization
In WMO, HR staff with IT experience currently provide management reports and assist with e-Learning. Each of the HR functions at the ASCs maintains its own IT specialists. These individuals have widely varying degrees of expertise with respect to the numerous HR systems in place to support HR activities.

The COOL system, for example, (a system linked to USA JOBS) is owned by the Department of Commerce and serves as NOAA HR's automated recruitment system. This system maintains hiring cycle times at the Department level (not NOAA-specific). The system employs a self-ranking capability that has created a significant bottleneck in terms of the recruitment and hiring process. Customers complain that applicants misrepresent their skill sets and the HR staff is not able make adjustments because they are not trained to identify the misrepresentations.

In an effort to improve the hiring cycle times associated with COOL, HR staff have worked with hiring managers to develop standard templates for the most commonly filled positions, thus reducing future burden on managers and specialists to create job descriptions. Unique positions still create a problem, however, as does the level of trust in the self-ranking system capability. Rather than relying on the paperless application process and scores applied to applicants, some HR staff continue to print out copies of the entire set of applications and score them individually, essentially recreating the rating panels that were removed from the process when COOL was implemented.

Staff Training and Organizational Development
Training is not within the scope of the services provided by WMO to its customers. Unfortunately, neither does WMO have adequate resources currently to provide for training of its own staff members. This represents a continuing risk to the organization's ability to deliver high quality services and to meet customers' current needs. It further endangers the organization's ability to meet new and evolving requirements or to take advantage of advances in technology. The lack of training can ultimately result in a "stale" workforce, resulting in attrition of more highly motivated staff and a steady decline in service quality.

Performance Measurement, Reporting, and Accountability
Performance measures have been identified for Workforce Management in the draft NOAA Office of Finance and Administration Service Level Agreements (dated May 27, 2003). These are high-level metrics that need to be supplemented with more detailed metrics.

NOAA lacks a single tool to consistently and automatically capture and calculate cost, productivity, and time allocated to workload. This makes it difficult to provide adequate data for ABC analysis. NOAA would benefit from being able to capture data on such measures as:

- Number of cases handled per year (by type—disciplinary action, performance-based action, EEO, grievance, etc.), including the labor hours allocated to all aspects of the process (consultation and guidance, case processing, investigation, mediation, etc.)
- Number of *certificates of eligibility* issued, rather than solely the number of hires. The certificates better represent workload associated with the competitive placement process because there are often multiple certificates issued for each hire
- Policy, or headquarter support, metrics, such as time associated with specific activities (at the micro level) and number of policies and programs developed, issued, and implemented per year
- Number of personnel action requests (SF-52s/50s) processed per year

- Performance goals with trackable metrics that are consistently captured and applied across the HR organization, such as new hire turnover, hiring cycle times, appraisal and promotion results of new hires, etc.
- Standard and periodic customer satisfaction results
- Outcome-oriented results (e.g., succession planning, reduction in knowledge flight, maintenance of critical government services, etc.) as part of the strategic human capital plan, driven by the President's Management Agenda (PMA)

Performance Analysis and Improvement
NOAA administers a Survey, Feedback, and Action (SFA) tool to employees to collect a broad range of feedback on issues related to job performance, quality of life, and other topics related to managerial and functional support. However, these surveys are not administered annually and do not focus in great depth on specific NOAA HR services. Currently, only MASC administers regular customer surveys. Other ASCs have dropped the practice because of resource constraints and a perceived lack of meaningful results, possibly due to the structure and content of the survey instrument questions. A more timely and targeted feedback approach is required to provide meaningful performance assessment that can be leveraged for continuous process improvement.

9.3 RECOMMENDATIONS AND IMPLICATIONS

9.3.1 Recommendations

RECOMMENDATION WM.1: Consolidate Workforce Management operations into two support groups under the direct control of the Director of HR

Based on our analysis, we propose that NOAA HR should be realigned to provide more consistent and enhanced HR support to its customers, while leveraging economies of scale and technology to reduce the cost of providing this support. Implementing this recommendation will result in a more even distribution of workload across NOAA. Current staffing ratios range from 1:77 customers served at MASC to 1:116 at CASC. It will be possible, however, for the proposed Eastern and Western operations staff to meet the 1:100 target established by NOAA for HR operational support. This will reduce overall cost for Workforce Management by 3%. In addition, this will support the separation of policy/oversight and operational activities at Headquarters. Headquarters will be better able to devote its attention and time to policy issues, while operational services will be provided by the operations staff. This will facilitate rationalization of resources across operational staff and clarify the Director's role in making and enforcing policy. It will also allow the Director to more effectively manage and reallocate HR resources across the organization, monitor the consistent application of policy, and ensure better customer service to all NOAA staff, regardless of their location.

RECOMMENDATION WM.2: Standardize the organizational structure of HR divisions so that Employee Relations Specialists and Benefits coordinators are aligned with customers

Each of the ASCs, including WMO-Operations, is organized differently. MASC, EASC, and CASC, for example, use a "generalist" approach to providing HR support, requiring a single specialist to provide support in the areas of employee relations, hiring, and benefits. WASC and WMO-Operations divide their HR organizations along these traditional HR service offerings. The alignment with customers is also handled differently by each HR organization.

While the generalist approach can be useful during times in which flexibility for peaks and valleys in support occur (the same specialist can "up" his time commitment to cases during a lull in hiring), and those who employ this structure feel strongly that the "one-stop shop" approach is best for customers, there is a significant downside to this approach. The training/ramp-up time for a new HR specialist is significantly longer than the average time at organizations where teams are aligned with activities. In addition, breaking up the HR organization to provide remote support to customers for some activities, while maintaining on-site support for others can result in difficulties. Also, when there is a significant hiring effort, cases may become a second priority. Workload planning becomes more difficult when HR specialists have multiple roles. This is evidenced in the estimates provided for the ABC study for this effort. Too often, HR specialists were not able to say with any degree of certainty, for example, how much of their time was dedicated to employee relations and how much was dedicated to recruiting and hiring.

The benefits of implementing this recommendation pertain primarily to consistency and improvement of service delivery across NOAA HR. By determining the best practice for HR organizational structure and replicating it across all locations, all of NOAA HR will be able to leverage the efficiencies and enhanced customer support afforded by the change in structure. In addition, the Director of HR will be able to more easily rationalize workload and staff according to need. For example, a spike in hiring can be accommodated by distributing the workload across hiring specialists at any of the three operational locations (specialists would not need to relocate to provide this support), independent of the impact on employee relations specialists.

RECOMMENDATION WM.3: Create a single, unified office, with a direct reporting line to the Deputy Undersecretary of NOAA, to house all EEO, Civil Rights, and Diversity related functions

As a result of the latest reorganization of finance and administration services, the Office of Civil Rights (OCR), reports administratively to the Chief Administrative Officer. The Office of Diversity is currently aligned under Workforce Management and reports to the Director of WMO. There are three elements to our restructuring recommendation

for OCR and the Office of Diversity: incorporating them into a single office, maintaining separate divisions, and renaming the OCR portion. First, certain synergies can be gained by incorporating OCR and the Office of Diversity into a single, unified office, under a single Director, who has a direct reporting line to the NOAA Deputy Under Secretary. Co-locating these offices can help to better integrate equal employment opportunity programs and activities with diversity initiatives. As an example, OCR's efforts to collect and analyze data for the annual Affirmative Employment Plan likely surface improvement strategies that could be implemented by the Diversity staff (or as a collaborative effort across the two offices). Second, while there are benefits to integrating these two offices into one, there also are benefits to maintaining separate divisions for EEO and Diversity. Doing so helps to maintain appropriate distinctions between highly regulated EEO compliance activities (which may be perceived as reactive) and diversity activities focused on building strategies to enhance diversity and inclusion throughout the organization (which may be perceived as proactive). The third element, renaming the OCR functions as EEO programs, seems to better reflect the nature of work performed.

RECOMMENDATION WM.4: Automate the SF-50/SF-52 forms (using a COTS/GOTS package) and reengineer associated processes

Many government agencies have received exceptions to the SF-50 and SF-52 requirements and/or have automated these forms through various means (e.g., web-based, PDF). This enhances the personnel request process, speeds up the processing of forms, eliminates paper, and increases the workload capacity of HR staff to process transactions, freeing up specialists for more value-added activities. Given the great number of these forms processed each year by the ASCs, a relatively small reduction in processing time and investment in technology (COTS products are available) can add up to a significant reduction in FTEs and corresponding cost supporting this process.

Although SF-50/SF-52 processing data was not available for all ASCs, CASC and WASC provided data on SF-50 processing. The total was 8,229 for FY03 (4,227 additional SF system-generated SF-50s) at CASC and 9,380 SF-52s processed in FY02 by WASC. By automating these forms using a Commercial-Off-the-Shelf (COTS) software package or tailored Government-Off-the-Shelf (GOTS) package, the workload processing capability could be increased, reducing the workload of HR staff.

RECOMMENDATION WM.5: Provide training, communication, and change management support for the Commerce On-Line (COOL) hiring system to HR staff and line office managers

Many government organizations use QuickHire or other automated hiring systems to support their competitive placement processes. Those that have been using these systems longer have also learned how to improve upon the rating/ranking system to

help reduce workload. They have also identified opportunities to utilize additional functionality (e.g., classification features included in the products) to further automate and integrate processes and reduce workload. Currently, COOL capabilities, such as the rating and ranking capability, as well as the ability to view applications and attachments on line) are not being utilized as effectively as they should primarily due to people and process shortcomings, rather than the technology itself (although further analysis of the technical shortcomings is required). The majority of managers interviewed for this effort across the ASCs cited COOL as a significant bottleneck in the hiring process. Many complained that the ranking system was inadequate and that the candidates selected as "top ten" were often not qualified for the position.

The benefits to resolving the people and process issues related to implementing COOL and any future enhancements are a further reduction in cycle times, further increases workload capacity to support the 1:100 staffing ratio, and the elimination of inefficient and redundant activities (e.g., rating, printing of documents).

RECOMMENDATION WM.6: Consolidate all Time & Attendance Coordination Activities in Boulder, as well as all related activities, such as the Leave Share and Leave Bank Program Coordination Activities

Currently, the Time and Attendance (T&A) Team in MASC's HR division coordinates pay and leave, as well as the Time and Attendance processes for WMO-Operations, CASC, and MASC's NOAA customers. This approach is slated to be expanded to EASC's and WASC's customers once funding is received via the upcoming budget request. The Leave Bank and Leave Share programs impact the pay and leave processes to a significant degree. They contribute to the errors that are most difficult to reconcile for the Time and Attendance team. Therefore, it seems appropriate to consolidate the administration of all of these activities under one team structure. This should increase quality and prevent errors through enhanced standardization, development of more highly skilled staff, and knowledge-sharing.

The benefits to consolidating all of the related payroll and leave activities in one location under the direction of a single team lead is that current required activities related to the resolution of errors, such as communications and access to past information on programs and staff can be streamlined and, in some cases, eliminated. Process resolution cycle times should be reduced (although current cycle time data is not available), and workload capacity of staff can be increased proportionally.

RECOMMENDATION WM.7: Develop and implement the capability to provide Strategic Workforce Planning and Comprehensive Training and Development services to NOAA staff through the Office of Human Resources

Best practices Human Resource organizations typically provide a broad range of services -- from transactional to strategic. Currently, NOAA's HR staff is overwhelmingly focused on activities that are considered to be traditional HR service offerings (hiring, employee relations, labor relations, case handling, etc.) for most Federal agencies.

Exhibit 9-9: As-Is Policy/Oversight vs. Operations FTE Delineation

	EASC	CASC	MASC	WASC	WASHDC
Operations Time	98%	100%	100%	86%	65%
Policy/Oversight Time	2%	0%	0%	14%	35%

Exhibit 9-10: To-Be Policy/Oversight vs. Operations FTE Delineation

	Eastern Operations	Western Operations	Headquarters
Operations Time	100%	100%	0%
Policy/Oversight Time	0%	0%	100%

Unlike a growing number of Federal Agencies, NOAA provides very limited support in the areas of Strategic Human Resources, Training and Development and Performance Management. In order to improve its HR function, NOAA needs to employ a more appropriate mix of strategic and transactional services (see Exhibit 9-10). As such Booz Allen recommends NOAA develop the specific capabilities and practices in the areas of strategic workforce planning and training and career development.

RECOMMENDATION WM.8: Conduct Strategic Workforce Planning

Booz Allen recommends that NOAA plans for and implement strategic workforce planning (SWP), which involves taking a more strategic approach to managing the workforce to meet current and future needs of the organization. SWP is conducted to ensure the organization has the right number of people in the right jobs at the right time with the appropriate skills. SWP is a systematic assessment of the organization's workforce composition and human capital in order to respond to the future personnel needs of the organization. SWP identifies, across the various lines of businesses, the number of people and skills need to perform the work of the organization. SWP also involves continuous assessments of attrition and retirement trends in NOAA, Department of Commerce and the broader federal government in order to develop succession planning and knowledge retention strategies for the organization. In line with the President's Management Agenda, the ultimate objective of SWP is to forecast

future demand for human capital to support the organization workload and provide the needed skills as the environment changes.

9.3.2 Target Organization

We propose two major changes to the current delivery model. The first change is the realignment and consolidation of the NOAA HR function into two operational staffs that report directly to the head of HR at Headquarters. The two operational staffs are referred to as Eastern and Western operations. The Western operations staff includes HR staff physically located in Seattle, WA and Boulder, CO. The second change is the realignment of the Offices of Civil Rights and Diversity under a single Director who reports to the Deputy Under Secretary of Commerce for Oceans and Atmosphere.

We propose that in the new operating model all HR staff be aligned along areas of specialization. The areas of specialization should include: Management Services, Employee Services, Competitive Placements, Bargaining Agreement Negotiations and Administration, and Case Handling. These areas represent traditional HR activities. We propose that staff in Seattle (part of Western Operations) administer the Alternative Dispute Resolution program and that the staff in Boulder (also part of Western Operations) manage the Time and Attendance, Leave Share, and Leave Bank programs, as well as the Employee Assistance Program. WMO (located at Headquarters) will provide policy direction and guidance for all NOAA HR staff, including the wage mariners.

The proposed staffing model should bring staffing ratios across NOAA HR support in line with ratios found in other government agencies (approximately one HR staff to one hundred customers served). The consolidation and redeployment of HR resources and workload according to staffing ratios and customer concentration allowed for some moderate adjustments to government FTE levels supported by economies of scale and increased automation. This FTE adjustment is offset, however, by the addition of 8 government FTEs to the Office of Human Resources to provide support in the areas of Strategic Workforce Planning and Training/Development. The current total for Workforce Management FTEs is approximately 167 government FTEs (not including contractors). The proposed adjustment over three years will result in a total of 170.46 government FTEs (including those assigned to the Office of Civil Rights and the Office of Diversity, which will report directly to the Deputy Under Secretary in the proposed organization). This adjustment in staff will occur over a three-year period to allow for as much of the realignment to occur as a result of natural attrition of staff (retirements, relocations, and resignations) as possible. As staff in Norfolk and Kansas City leave, they will be replaced as required to support the new service delivery model managed by the Director of Workforce Management. This will minimize the disruption to support provided to customers served by ASCs that are closing, as well as allow HR staff at those locations to either retire or find other employment options in a reasonable timeframe.

9.3.3 As-Is and To-Be Comparisons of Staff and Cost

Exhibit 9-11: Total Workforce Mgt Annual Operating Costs for As-Is

Workforce Mgmt *As-Is*	EASC		CASC		MASC		WASC		Wash DC*		Headquarters**		Total	
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost
Government Labor	20.4	$ 2,128	20.0	$ 2,081	28.5	$ 2,965	31.4	$ 3,272	33.2	$ 3,453	33.9	$ 3,529	167.4	$ 17,428
Contractor Labor	3.2	$ 365	0.0	$ 5	0.1	$ 12	0.5	$ 55	0.7	$ 76	27.9	$ 3,154	32.5	$ 3,667
Variable Overhead		$ 37		$ 45		$ 77		$ 105		$ 56		$ 57		$ 377
Fixed Overhead		$ -		$ 12		$ 0		$ 17		$ -		$ 1,254		$ 1,284
Total	23.7	$ 2,529	20.0	$ 2,142	28.6	$ 3,055	31.9	$ 3,450	33.8	$ 3,585	61.8	$ 7,995	199.8	$ 22,755

Notes: Dollars are in thousands ($000s)
**Wash DC includes WMO HR Operations FTEs (the "fifth ASC")*
***Headquarters includes FTEs from the Office of Civil Rights, Office of Diversity, and WMO HR Policy*

Exhibit 9-12: Total Workforce Mgt Annual Operating Costs for To-Be

Workforce Mgmt *To-Be*	Western Operations		Eastern Operations		Headquarters		Total		Percent Change	Net Cost Differential *
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost		
Government Labor	75.5	$ 7,862	55.5	$ 5,780	39.5	$ 4,109	170.5	$ 17,751	2%	$ (323)
Contractor Labor	0.6	$ 72	3.9	$ 441	40.4	$ 4,566	45.0	$ 5,079	39%	$ (1,413)
Variable Overhead		$ 224		$ 93		$ 66		$ 384	2%	$ (7)
Fixed Overhead		$ 17		$ -		$ 1,254		$ 1,272	-1%	$ 12
Total	76.1	$ 8,175	59.4	$ 6,314	79.9	$ 9,996	215.4	$ 24,485	8%	$ (1,730)

Note: Calculations assume current workload and exclude effect of transition costs
Dollars are in thousands ($000s)
**Projected cost increase*

The to-be staffing model presented in Exhibit 9-12 presents the reorganization and consolidation of Workforce Management activities described above into three areas: Western Operations, Eastern Coast Operations, and Headquarters. Staffing levels for the different locations include:

- Western Operations: Made up of HR staff located in Seattle (30 FTEs) and Boulder (45 FTEs). Boulder HR staff will report to the Director of HR in Seattle. Western Operations will continue to support its regional customers, while Boulder will support current MASC and CASC customers;
- Eastern Operations: Located at NOAA Headquarters, providing HR operational support to customers at Headquarters and current EASC customers (55 FTEs); and
- Headquarters: Made up of HR policy and oversight activities, as well as the Offices of EEO Programs (Civil Rights) and Diversity Services (Diversity). All will continue to support their current customer bases.

The contract amounts will be impacted through the addition of 12.5 contractor FTEs to provide course design and delivery support to the Office of Human Resources' training function. Contract amounts currently in place to support the Employee Assistance Program (at CASC), Affirmative Employment Internship Program (under the Office of Civil Rights), and the Work-Life Center (under the Office of Diversity) will not be impacted. A projected cost increase of $1,730,000 results from changes in direct labor

staffing levels and overhead costs between the current (As-Is) and future (To-Be) process-based organizational structure.

10. FACILITIES AND LOGISTICS SERVICES

10.1 OVERVIEW OF FACILITIES AND LOGISTICS SERVICES

The Facilities and Logistics service organization is responsible for the acquisition, administration, and in certain cases operation/management, of the facilities and real property assets utilized by NOAA and other non-NOAA organizations. This business line is also responsible for the delivery of numerous logistics services nationwide, including personal property management, printing and publications management, shipping/handling activities, as well as environmental compliance, safety, and security services[8]. In addition to the above-mentioned services that are provided nationwide, Facilities and Logistics manages the delivery of copy center services, storage programs, warehousing/distribution (through the National Logistics Support Center), health unit services, and graphics programs at selected locations.

10.1.1 Service Portfolio

The specific services that are provided under the umbrella of the Facilities and Logistics functional area are as follows:

- Design & Construction
- Buildings Management and Services
- Real Property Acquisition and Management
- Personal Property Management
- Printing and Publications
- Shipping/Handling and Storage

The delivery of these services occurs primarily at the ASC level with the Headquarters organization being tasked with the development and disbursement of policy and procedure. Given the nature of facilities and logistics service, with the exception of certain building management activities that require on-site presence, the ASCs have been able to provide these services in a virtual fashion. Most customers of the facilities and logistics business line are served remotely, with face-to-face interaction occurring only during certain key project phases or at specific milestones. Aside from the DC metropolitan area, 74% of the facilities and logistics business line customers are served remotely. A detailed customer dispersion analysis is shown in Exhibit 10-1.

[8] For the purpose of this Booz Allen study, all services and activities related to environmental compliance and occupational safety and health will be discussed in Section 11 of this report. Security services will not be addressed in detail, due to the minimal costs currently associated with these services at NOAA. Security services currently include OEP and COOP work. Physical security is managed by the Department of Commerce and NOAA is assessed a fee for these services.

Exhibit 10-1: ASC Customer Dispersion

	FACILITIES AND LOGISTICS – CUSTOMER DISPERSION					
	EASC	CASC	MASC	WASC	HQ/DC ASC	Totals
Customers Collocated w/ ASC (% of total)	235 Staff (9%)	385 Staff (13%)	1,520 Staff (70%)	800 Staff (24%)	3,547 Staff (100%)	6,487 Staff (44%)
Customers not Collocated w/ ASC (% of total)	2,309 Staff (91%)	2,577 Staff (87%)	655 Staff (30%)	2,600 Staff (76%)	0 Staff (0%)	8,141 Staff (56%)
Total Number of Customers	**2,544 Staff**	**2,962 Staff[9]**	**2,175 Staff**	**3,400 Staff**	**3,547 Staff[10]**	**14,628 Staff**

Increasing the dispersion and diversity of customers served by the ASCs is the approach taken by CASC with the National Logistics Support Center (NLSC). The NLSC is a high transaction shipping/handling/receiving operation that handles 50% more volume than any other ASC.[11] This higher volume includes the handling and storage of special items related to the National Reconditioning Center (NRC). The association of the NLSC with the centralized operations of the NRC establishes a Center of Excellence approach for the delivery of Shipping/Handling services by CASC.

10.1.2 Customers

The majority of the selected services are delivered to the full range of Facilities and Logistics customers, however, a small portion of the workload is associated with non-NOAA customers. The distribution of transactions across the six service areas and the four major customer groups is depicted in Exhibit 10-2.

9 Includes 484 contractor and members of academia located in customer offices and thereby directly/indirectly supported by CASC, depending on the specific service area under discussion.

10 All Washington DC Operations customers are located within the greater Washington, DC metropolitan area.

11 MASC handles approximately 50,000 shipping/handling transactions per year, whereas CASC NLSC handles over 75,000.

Exhibit 10-2: Overview of Facilities and Logistics Customers [12]

		Facilities and Logistics Services			
		Finance & Admin Svcs Organization	Other NOAA	Other Commerce	Other Federal
Design & Construction	# of Transactions	4	60	0	0
	% of Total Trans	6%	94%	0%	0%
Building Management (Square Footage)	# of Transactions	137,690	1,639,933	36,747	43,486
	% of Total Trans	7.4%	88.3%	2.0%	2.3%
Real Property (Acquisitions)	# of Transactions	0	309	15	0
	% of Total Trans	0%	95.4%	4.6%	0%
Personal Property	# of Transactions	11,484	94,954	4,434	0
	% of Total Trans	10.4%	85.6%	4.0%	0%
Printing and Publications	# of Transactions	383	1,341	111	38
	% of Total Trans	20.4%	71.6%	5.9%	2.0%
Shipping & Handling	# of Transactions	8,629	93,909	24,567	16,855
	% of Total Trans	6.0%	65.2%	17.1%	11.7%
Storage	# of Transactions	83,689	101,427	88,239	255
	% of Total Trans	30.6%	37.1%	32.2%	0.1%

10.1.3 Organization

The current organizational structure behind the Facilities and Logistics services is based primarily on geographic location and secondarily on functional alignment. The present-day structure of the organization establishes functional groups within both the Headquarters and field levels but does not call for direct reporting of the operative staff (field) to those who are developing the policy and procedure for each of the specific service areas (Headquarters). Field personnel are instead administratively aligned under the Facilities and Logistics Division (FLD) Chiefs, a mid-level management position housed within each ASC. An indirect reporting relationship does exist between the Headquarters and field staff but all day-to-day management responsibilities of field personnel fall under the duties of the FLD Chief.

10.1.4 Staffing and Costs

As a part of the analysis on Facilities and Logistics workload, Booz Allen attempted to ascertain a relatively accurate representation of the staffing levels and costs associated with the Facilities and Logistics services organization. The ABC data, which was used as a baseline starting point, provided the Booz Allen team with costs and FTE data points for Facilities and Logistics in each of the four ASCs and the Headquarters.

The nature of the Facilities and Logistics functions does not allow for comprehensive presentation or interpretation of data at the highest level. In order to examine the resources devoted to the delivery of the full range of Facilities and Logistics services, it is necessary to do so on a service-by-service basis. Exhibit 10-3 captures a snapshot of FTEs and the associated cost for the Facilities and Logistics service organization

[12] This data was sourced from the FY02 Facilities Data Elements for ABC reports provided by each ASC and Headquarters.

however it does not provide the service level (i.e. Design and Construction, Real Property Acquisition and Management, Personal Property Management, etc.) breakdowns that are required to effectively analyze the pertinent data. Additional detail on these individual services can be found in Section 9 of Deliverable One: Workload Analysis, November 17, 2003 where Booz Allen has provided a thorough presentation of the costs and FTEs associated with each of the Facilities and Logistics services referenced in Section 10.1.1.

Exhibit 10-3: As-Is Total Facilities and Logistics Services FTEs and Costs

	FACILITIES AND LOGISTICS SERVICES													
	EASC		CASC		MASC		WASC		WASH DC		HQ		TOTALS	
	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*
Government FTEs	9.3	10.0	42.9	41.0	24.2	28.0	26.4	25.9	55.3	27.2	0	20.7	158.1	152.8
Government Cost ($000's)	$690	$572	$2,954	$2,598	$1,558	$1,503	$1,886	$1,874	$4,864	$3,030	$46	$12,438	$11,998	$22,016
Contractor FTEs	N/A	0	N/A	6.5	N/A	7.5	N/A	45.5	N/A	59	N/A	0	N/A	118.5
Contractor[13] Cost ($000's)	N/A	$0	$335	$531	N/A	$271	$2,570	$2,776	$2,523	$3,830	$0	$0	$5,428	$7,408
Total FTE	9.3	10.0	42.9	47.5	24.2	35.5	26.4	71.4	55.3	86.2	0	20.7	158.1	271.3
Total Cost ($000's)	$690	$572	$3,289	$3,129	$1,558	$1,774	$4,456	$4,650	$7,387	$6,861	$46	$12,438	$17,426	$29,424

Notes: Dollars are in thousands ($000s)
Costs are unburdened labor
**FY 2003 is adjusted data*

As shown in Exhibit 10-3, the total number of FTEs that are directly aligned to the Facilities and Logistics organization in 2003 is 271.3. The estimated cost associated with these FTEs is $29,424,000. Both government FTEs and contractor FTEs are incorporated into these figures, in conjunction with any associated unburdened costs. The levels of staffing across ASCs do vary, in accordance with the scope and scale of service provided to customers. For example, staffing levels at EASC are the lowest of the ASCs, since EASC has limited service offerings and a smaller portfolio of properties.

[13] Contract costs for FY02 have been provided where they have been made available by the client. Instances where contract costs were not known, but contract FTEs existed during that year were marked as N/A. Where there were no contractors engaged in the activity, this has been noted as $0.

10.2 FINDINGS AND CONCLUSIONS

10.2.1 Workload and Productivity Analysis

10.2.1.1 Services Selected for Detailed Analysis

An initial review of the ABC data was combined with Booz Allen's functional expertise in real estate and facilities business process analysis to determine which of the processes identified in NOAA's Catalog of Services should be selected for further study. In addition to representing the majority of NOAA's costs related to facilities and logistics services in 2002, the six processes or services selected for further study represent a significant portion of the organization's facilities and logistics workload within NOAA. The selected services are predominantly operational in nature. However, there are some policy/planning/oversight activities that are embedded into these operational services, the majority of which are performed at the Headquarters level.

The specific services that were selected for further analysis are as follows:

- Design & Construction;
- Buildings Management and Services;
- Real Property Acquisition and Management;
- Personal Property Management;
- Printing and Publications; and
- Shipping/Handling and Storage.

Each of the six services was further scrutinized to determine the primary activities that are carried out in the delivery of these services. Complete descriptions of the activities performed under each of these service areas can be found in Section 9 of Deliverable One: Workload Analysis, November 17, 2003.

10.2.1.2 Internal Benchmarking

Comparisons of the workload/demand, capacity, efficiency, and productivity metrics for a selection of the Facilities and Logistics services are depicted in the following section. The FTEs and associated unburdened costs are based on the adjusted figures presented in Section 10.1.4 of this document as well as Section 9 of Deliverable One: Workload Analysis, November 17, 2003. All transaction volumes and costs shown in the following Exhibits were assembled through a series of interviews with the respective service area staff at each ASC. The following Exhibits present the internal benchmarking data for Design and Construction, Real Property Management and Acquisition, and Personal Property Management. Detail on the remaining Facilities and Logistics services can be found in Deliverable One: Workload Analysis, November 17, 2003.

Design and Construction

The Design and Construction service is responsible for coordinating and reviewing the planning, design, construction, repair, and alteration activities associated with NOAA's real property portfolio. The in-house FTEs associated with Design and Construction are often supported by various architecture and engineering contracts to manage capacity demand. Staff is typically responsible for both major construction projects and the performance of minor construction work related to maintenance, repairs, and alterations. The Design and Construction staff is also responsible for providing the data necessary for the reporting of construction activities.

Exhibit 10-4 presents an overview of performance data for the Design and Construction service area.

Exhibit 10-4: Overview of Design and Construction Performance Data[14]

Unit of Measure	DESIGN AND CONSTRUCTION						
	EASC	CASC	MASC	WASC	WASH DC	HQ	TOTALS
	Projects						
FTEs	2.0	8.6	2.5	6.5	4.8	N/A	24.4
Transaction Volume	14	23	18	12	2	N/A	69
Value of Projects ($000's)	$7,400	$166,000	$1,800	$185,000	$200,000	N/A	$560,200
Projects/FTE	7.0	2.7	7.2	1.8	0.42	N/A	2.8
Avg Project Value (000's)	$529	$7,220	$100	$15,417	$100,000	N/A	$8,119
Value of Projects/FTE (000's)	$3,700	$19,302	$720	$28,462	$41,667	N/A	$29,959

Note: Dollars are in thousands ($000s)

At CASC and WASC, where major construction projects are currently underway, the numbers of FTEs involved in Design and Construction services are significantly higher than the FTEs identified for EASC and MASC, where the majority of projects are associated with FMRS. Therefore, the number of projects per FTE is much lower at CASC and WASC, while the average project cost is much greater.

It should also be noted that some of the Design and Construction positions in the ASCs are fully funded by line offices. This ensures that staff is available to work on certain projects. This funding system creates a situation in which certain ASCs have staff aligned to specific line offices or projects, while other ASCs do not, but rather draw from a pool of Design and Construction staff for projects as required. This variance in the operating model may be a contributing factor in customer satisfaction ratings for the Design and Construction service area.[15]

[14] All transaction volumes listed were obtained from the client in the respective ASC or Headquarters office. Design and Construction transaction counts include both FMRS and Major Construction projects. Project Costs are based on project cost estimates provided by the client in the respective ASC or Headquarters office.

[15] Overall customer satisfaction ratings for facilities and logistics are presented in Section 10.2.2. However, specific ratings for the design and construction service area were not solicited.

Real Property Acquisition and Management

The Real Property service is responsible for supporting all of NOAA's requirements regarding the acquisition and subsequent management of interests in real property. The service plays a role in all real property acquisitions, transfers, donations, leases, assignments, permits, and memoranda of agreement. In addition, this service is responsible for disposal of property interests, aiding in the resolution of real property disputes, and managing the real property database.

Activities associated with Real Property Acquisition include: providing requirements analysis; coordinating advertising; conducting market surveys; conducting price terms and negotiations; negotiating the rights-of-entry; conducting surveys and appraisals; and coordinating NEPA studies and determinations. Real Property Management activities include: managing owned properties and administering leases; disposing of interests in real property.

Exhibit 10-5 presents an overview of performance data for the Real Property Acquisition and Management service area.

Exhibit 10-5: Real Property – Acquisition & Management Performance Data [16]

Unit of Measure	REAL PROPERTY – ACQUISITION AND MANAGEMENT						
	EASC	CASC	MASC	WASC	WASH DC	HQ	TOTALS
FTEs	2.0	2.3	4.5	8.3	6.4	N/A	23.5
Leases Administered (includes GSA)	570	559	682	684	13	N/A	2,508
Warranted Staff	3[1]	1	3[2]	5	0	N/A	12
Transaction Totals	119	83	174	134	3	N/A	513
New Lease Actions	17	48	63	57	3	N/A	188
Non Acquisition Lease Actions	100	35	111	76	0	N/A	322
Land Purchase	2	0	0	1	0	N/A	3
Transactions/FTE	59.5	36.0	38.7	16.1	0.50	N/A	21.8
Leases Administered/FTE	285.0	243.0	151.5	82.4	2.00	N/A	106.7

Notes: Includes FLD Chief
Includes Facilities Program Manager

Regarding Real Property Acquisition and Management, MASC and WASC engage in the largest number of transactions each year, at 174 and 134 transactions, respectively. These ASCs have more staff that are warranted to acquire property on behalf of NOAA. While EASC does have three warranted staff, one of these individuals is the FLD Chief, who does not typically engage in these activities in a hands-on manner.

[16] Total Leases Administered for each ASC and Headquarters office is based on information received on the individual real estate portfolios of the respective locations. Transaction totals include all contract actions taken by the real property (RP) staffs of each location. In each instance the ASC either validated the FY02 Facilities Data Elements for ABC real property transaction counts or provided supplemental information that was then used as the source data. Transactional breakdowns were obtained directly from the RP staff in the respective locations.

In the field, the number of transactions completed in a year will vary from 16 to 59.5[17] transactions per FTE. Without additional detail about the specific transactions, this metric cannot truly be utilized to determine the productivity associated with each FTE. This is an issue that is pervasive in studies that attempt to compare real property acquisition activity between different groups or organizations. Given the fact that the scope of Real Property acquisitions can include anything from space on a radio tower for RF equipment to an office building sized at several hundred thousand square feet, organizations need to track these indicators and metrics at a more detailed level to make effective comparisons.

With regards to property-acquisitions and management, while the primary activities that the ASC Real Property staff perform are focused on lease acquisition, lease administration activities still require a significant amount of attention. With 684 locations, WASC currently administers the largest number of leases. Given the number of real property staff at WASC, the number of leases administered per FTE is approximately 83. This is lower than most of the other ASCs, but as discussed in the Real Property acquisition section above, this metric cannot necessarily be used as an indicator of efficiency or productivity without additional detail about the types of leases and properties involved.

Personal Property Management

The Personal Property Management service is responsible for managing NOAA's personal property inventory, which involves the coordination of reporting for $5.5 billion of personal property assets.

The activities associated with NOAA's Personal Property Management service include: managing of personal property; performing personal property disposal actions and UPR management; and acquiring and managing vehicles.

Exhibit 10-6 presents an overview of performance data for the Real Property Acquisition and Management service area.

Exhibit 10-6: Overview of Personal Property Performance Data[18]

	PERSONAL PROPERTY						
	EASC	CASC	MASC	WASC	WASH DC	HQ	TOTALS
FTEs	2.0	3.0	2.3	2.3	12.3	N/A	21.9
Transaction Volume	3,965	8,962	13,356	21,866	62,723	N/A	110,872

17 The exception to this metric is Headquarters, where the number of transactions is fairly low in any given year.

18 Transactional counts were derived from the FY02 Facilities Data Elements for ABC reports provided by each ASC and Headquarters. A 'Transaction' implies any change to an asset record in the Sunflower Asset Management database. Changes include record addition, deletion and alteration. Total number of assets managed and associated value is based on information provided by the Headquarters office of Personal Property Management. Data was obtained from reports generated out of the Sunflower database.

# of Assets Managed	14,337	17,111	16,020	21,357	27,419	N/A	96,244
Value of Assets Managed (000's)	$466,000	$503,000	$409,000	$480,000	$3,657,000	N/A	$5,515,000
# of Assets/FTE	7,168	5,703	6,965	9,286	2,229	N/A	4,395
# of Transactions/FTE	1,983	2,987	5,807	9,507	5,099	N/A	5,063

Note: Dollars are in thousands ($000s)

On average, each of the ASCs manages approximately 20,000 capitalized and non-capitalized assets. However, the number of transactions per year at each ASC will range from 3,965 (EASC) to 62,723 (Wash DC). The variance in the number of transactions can be largely attributed to two factors, including: 1) the process by which personal property staff interact with the Sunflower database (i.e., using a manual process or using a barcode scanner) and 2) the demand for services (i.e., number of new assets added to or removed from the database).

In the field ASCs, the average number of assets managed per personal property program FTE is 7,281 and the average value of assets managed per FTE is $465,000. At Wash DC, the average number of assets managed per personal property program FTE is 1,828 and the average value of assets managed per FTE is $244,000. It should be noted that a portion of the Wash DC Personal Property Management staff are focused on the warehouse and systems furniture assets, which are not represented in the above asset counts and values. For the purpose of this analysis, FTEs and associated costs for the warehouse-focused Personal Property Management staff have been assigned to the Shipping and Handling and Storage function.

10.2.1.3 External Benchmarking

NOAA and Booz Allen identified the Internal Revenue Service (IRS) as a relevant organization to benchmark against for the facilities and logistics program assessment. Through face-to-face and telephone interviews, as well as industry reports, Booz Allen gathered the data required for NOAA's analysis. Booz Allen also drew on performance data from a previous client, identified as BP1. The benchmarking partner identified in this section is unique to this function and does not correspond with other sections of this document. Performance measures selected to compare the productivity of NOAA's facilities and logistics functions with those of the benchmarking partners are consistent with generally recognized indicators and metrics within both the private industry and government organizations. The units of measures identified are unique to each service area discussion for facilities and logistics, and as such are described and associated within each section individually. Some of the measures reflect productivity and others reflect quality in service delivery.

The following Exhibits present the external benchmarking data for Design and Construction, Real Property Management and Acquisition, and Personal Property

Management. Detail on the remaining Facilities and Logistics services can be found in Deliverable Two: Benchmarking Analysis, November 17, 2003. Based on the units of measure identified in each section, the Exhibits below present a comparative analysis of the productivity of NOAA's ASCs and the benchmarking partners identified.

Design and Construction

Within the NOAA organization, the magnitude of the construction projects managed by the ASCs varies significantly. Major construction projects are typically managed out of WASC, CASC, and Wash DC, while EASC and MASC are primarily engaged in the smaller Facilities Maintenance, Repair, and Safety (FMRS) projects. The Design and Construction data comparison between NOAA and the benchmarking partners indicates differences on a number of levels. Exhibit 10-7 provides comparison data for NOAA and the IRS for the Design and Construction service area.

Exhibit 10-7: Comparison of Design and Construction Indicators and Metrics

	Indicators				Metrics			
	Number of D&C projects per year	Value of D&C projects per year ($000s)	Cost of A&E services managed per year ($000s)	Total number of FTE	Average value of D&C project ($000s)	Value of projects managed per year/ FTE ($000s)	Cost of A&E services managed per year/FTE ($000s)	Number of D&C projects per year/FTE
EASC	14	$7,400	$152	2.0	$140	$3,700	$76	7.0
CASC	23	$166,000	$27,000	8.6	$7,217	$19,302	$3,140	2.7
MASC	18	$1,800	$114	2.5	$100	$720	$47	7.2
WASC	12	$185,000	$3,048	6.5	$15,417	$28,462	$469	1.8
WASH DC	2	$200,000	$0	4.8	$100,000	$41,666	$0	0.4
HQ	N/A	N/A	N/A	4.2	N/A	N/A	N/A	N/A
IRS	1,000	$30,000	$5,000	100	$30	$300	$50	10

Initial examination of the data indicates that total number of projects managed per FTE on the part of the benchmarking partner is larger than those typically managed by the FTEs within the NOAA ASCs and Wash DC Design and Construction operations. Design and Construction FTEs from the IRS manage on average 10 projects per person, whereas most managers in NOAA's ASCs, with the exception of EASC and MASC, tend to manage fewer than three projects per person per year.

Further investigation of this workload imbalance tends to point to the scope of the projects engaged by the respective organizations. Average project value managed per year by a single FTE for projects managed by NOAA extend beyond those of the benchmarking partner by over $400,000 at the organization's lowest statistical level. The data indicates that a significant percentage of the Design and Construction program projects at NOAA are larger than those undertaken at the IRS. In contrast to CASC, WASC, and Wash DC that are devoted to managing larger construction projects,

EASC's and MASC's average value of individual projects range in cost from $720,000 to $3,700,000 each. Those figures are significantly higher than the values of the IRS, whose typical sized projects average approximately $300,000, as depicted in Exhibit 10-7. This higher value structure can be attributed to the complexity that is often associated with many of NOAA's projects. This is especially true when compared to the IRS, which is primarily involved with the build-out of office space.

Real Property Acquisition and Management

In this benchmarking effort, it seems that the internal benchmarks identified across the ASCs may be of more value to the organization. A number of concerns are typically identified when one organization attempts to benchmark the performance of its real property acquisition group against another. Regardless of the potential similarities between agencies and operating models, the key drivers of an effective and efficient real property acquisition program include having accurate requirements, access to real time market information, access to the suite of professionals required to close a transaction, and a well-defined process. As the context surrounding each of these items is different in most organizations, the ability to directly benchmark against others without a comprehensive understanding of the context is quite difficult. The most valuable aspect of the external benchmarking partner participation is an opportunity to investigate the context that makes a real property acquisition program successful.

Exhibit 10-8 provides a comparison of indicators and metrics between NOAA and the benchmarking partners.

Exhibit 10-8: Comparison of Real Property Acquisition & Management Indicators and Metrics

	Indicators								Metrics	
	Total number of direct lease acquisitions per year	Total number of indirect lease acquisitions per year	Total number of non-acquisition lease actions per year	Total number of real property purchases per year	Total number of warranted realty specialists	Total number of realty specialists	Total number of real property acquisition FTE	Total number of leases administered per year	Total number of direct lease acquisitions per FTE	Total number of leases administered per year/real property portfolio manager
EASC	119	N/A	100	2	3	2	N/A	570	59.5	285
CASC	83	N/A	35	0	1	2.3	N/A	559	36.0	243
MASC	174	N/A	111	0	3	4.5	N/A	682	38.7	152
WASC	134	N/A	76	1	5	8.3	N/A	684	16.1	82
Wash DC	0	3	0	0	0	6.4	N/A	13	0.5	2
IRS	N/A	85	N/A	N/A	N/A	24	N/A	795	0	33
BP1	5,000	N/A	4,550	0	135	135	N/A	35,000	37.0	259

With the exception of the Wash DC activity, the total number of leases administered across the ASCs is fairly consistent. However, differences in the data become more significant when looking at the leases administered per FTE. Within the ASCs having fewer FTEs devoted to the Real Property function, such as EASC and CASC, leases administered per FTE are significantly higher than their NOAA counterparts.

In addition, the size of the real property portfolio administered by BP1 creates a need for a larger number of real property FTEs, not only devoted to the function but also warranted with delegated direct leasing authority. The number of NOAA's real property FTEs with warranted authority to obligate the government to contractual leases is significantly lower than this benchmarking partner.

When comparing the number of leases administered per real property portfolio manager, several of NOAA's ASCs (EASC, CASC, and MASC) are performing at output levels associated with effective organizations. On average, many real property organizations will target between 100 and 200 properties per manager for ongoing lease administration. The most significant factor that drives the output level is the complexity of the leases involved. In some situations, the workload associated with managing to a set of lease terms can be significant. These situations can place significant constraints on the number of leases that an individual can administer concurrently.

Personal Property Management

As noted in the Personal Property Management portion of Section 10.2.1.2, the data associated with the personal property function indicates that there is an internal imbalance of total number of transactions per year across the ASCs. Though the level of assets remains relatively stable throughout the NOAA personal property community, the transactional counts are weighted significantly towards the Wash DC activities in the National Capital Region (NCR).

Exhibit 10-9 provides data offering a comparison of NOAA's Personal Property Management service with that of the IRS.

Exhibit 10-9: Comparison of Personal Property Management Indicators and Metrics

	Indicators			Metrics	
	Total number of transactions	Total value of assets managed per year ($000s)	Total number of assets managed per year	Total number of personal property FTE	Total number of assets managed per year/ personal property FTE
EASC	3,965	$466	14,337	2.0	7,168

CASC	8,962	$503	17,111	3.0	5,703
MASC	13,356	$409	16,020	2.3	6,965
WASC	21,866	$480	21,357	2.3	9,286
Wash DC	62,723	$3,657	27,419	12.3	2,229
HQ	N/A	N/A	N/A	0	N/A
IRS	5,000	$50,200	7,300	18	406

As these personal property groups manage an asset inventory that is fairly close in size, the level of disparity between the activity levels could potentially be attributed to a number of different issues. Higher transactional counts for the Washington, DC area can potentially be tied to the use of an efficient electronic barcode scanning system for inventory management and audits. Within the ASCs, data changes require a manual data entry process and are much slower than the barcode scanning systems.

A further imbalance appears in the total number of assets managed per FTE. In Wash DC and IRS there is a disproportionately lower number of assets managed per FTE than at the rest of the ASCs.

10.2.2 Customer Service Satisfaction Analysis

Booz Allen conducted a survey for the NOAA finance and administrative services organization to obtain customer input on the quality of the services provided to customers. As the survey responses were not solicited with respect to particular facilities and logistics service areas (i.e., Design and Construction or Personal Property Management), specific correlations cannot be drawn between the average ratings at an ASC and the productivity analysis shown in Section 10.2.1.2. However, based on the data that is available, at a nationwide average rating of 3.7 out of 5.0, customers have placed the overall business line at the 74th percentile. The rating scale for Customer Satisfaction is based on a 1-5 Likert scale[19]. The customer satisfaction results, reported by average rating scores, reflect the data collected from these surveys and are documented in Exhibit 10-10.

Exhibit 10-10: Facilities and Logistics Customer Satisfaction Survey Results

Facilities and Logistics	EASC	CASC	MASC	WASC	HQ	TOTALS
Internal Customers	3.6	3.8	3.9	3.7	3.2	**3.7**
External Customers	4.0	3.4	4.0	4.7	5.0	**4.2**
All Customers	3.6	3.8	3.9	3.8	3.3	**3.7**

In addition to the quantitative analysis conducted through the customer satisfaction survey, qualitative feedback was also solicited from the survey participants. The

[19] Rating Scale for Customer Satisfaction Survey:
1. Services **seldom** meets your needs in a timely manner and are free from errors
2. Services **sometimes** meet your needs in a timely manner and are free from errors
3. Services **often** meet your needs in a timely manner and are free from errors
4. Services **usually** meet your needs in a timely manner and are free from errors
5. Services **always** meet your needs in a timely manner and are free from errors

qualitative feedback presented below represents a sampling of the comments most frequently discussed during the customer interviews.

- All customers surveyed indicated that the communications between Headquarters and the ASCs were not particularly effective.
- Several customers indicated that the coordination between Headquarters and the ASCs could be improved, as could the efforts to follow-through with LO customers during projects and service delivery.
- Several customers suggested that the ASCs were under-resourced, which negatively impacted the ability to perform well.
- Several customers felt that the facilities and logistics staff did not have the technical expertise to properly customers[20].

Due to the nature of activities that fall under the Facilities and Logistics functional areas, cycle times for these business lines are developed and analyzed on a service-by-service basis. The cycle times for service delivery are often impacted by the scope or magnitude of the work, predetermined service level agreements with customers, and the individual capabilities of the Facilities and Logistics Staff.

As such, cycle times for tasks in one ASC may differ from those in other ASCs depending on the complexity of the task and the level of expertise of the practitioner. Instances where this may occur include Design and Construction projects where the varying magnitude of construction projects requires varying levels of effort or the expertise of one ASC allows for a shorter project lifecycle than another. Other instances include the activities of Real Property Acquisition where the amount of time required to solidify a lease with GSA will differ greatly from that required of performing a direct lease. The same can occur when comparing the time required for leasing a 100,000 square foot facility to purchasing a parcel of land.

Within Logistics services that are more standardized across transactions, such as Personal Property Management, Printing and Publications, and Shipping and Handling, uniform cycle times are more common. Within the NOAA Logistics community, cycle times have been established for these services and are often able to be implemented and met across the ASCs. For instance, within the Personal Property Management service, additions of new property into the Sunflower Database are to be completed within 7-10 days of receiving the property information. Printing and Publications transactions can usually be processed within one day and Shipping and Receiving transactions usually range from 1-2 days.

Additional information on cycle times for the Facilities and Logistics services can be found in Section 9 of Deliverable One: Workload Analysis, November 17, 2003.

[20] As the customer survey data was not collected at the service level, but rather at the function level, this commentary cannot be associated with a specific service provided by the facilities and logistics function.

Analysis on the adequacy of the Facilities and Logistics service mix, in terms of breadth of services offered and quality of services delivered, was conducted based on information collected from the NOAA Facilities and Logistics staff, customers and industry understanding gained by research performed by Booz Allen in the field of Facilities and Logistics.

The services that are currently grouped under the umbrella of Facilities and Logistics at NOAA are often structured within real estate, real property, or facilities organizations in the Federal Government. The only possible exception involves the Environmental Compliance, Heath, Safety, and Security group.

In many organizations, the visibility and mission criticality of the services provided by environmental compliance, heath, safety, and security programs have been elevated. As such, many organizations have initiated restructuring efforts to extract these programs from their existing nodes within real estate and facilities departments and to elevate their position within the enterprise.

At an aggregate level, anecdotal evidence from customer interviews on the Facilities and Logistics services consistently indicated that the range of services provided through this functional area was a mix appropriate for the customer needs. The majority of customers view these services as providing an added value and some have noticed improvement in the services over the course of the last years. Customers often noted that they felt the Facilities and Logistics staff "do the best they can with the limited resources available to them."

However, multiple customers have indicated a practice of being able to obtain certain expertise or more comprehensive service from one ASC over another. At the ASC level, this would indicate that the individual capabilities offered by certain services within one ASC do not equate to the same services in others, resulting in an inconsistent delivery of the service. An example of this can be found in Design and Construction where certain ASCs are primarily focused on major construction projects while others have limited experience with projects of this scope. Customers with major projects have tended to direct their work to the ASCs focused on major construction as they view these ASCs Design and Construction service as being more comprehensive and capable of meeting their needs.

The new concept of operations proposed by Booz Allen for the Facilities and Logistics functions (detailed in Section 9 Deliverable Three: Recommendations for Cost Effective Service Improvement, December 15, 2003 and referenced here in Section 10.3) seeks to remedy this situation of inconsistent service delivery through the consolidation of the delivery points and creation of communities of practice. Additionally, the solidification of the development of policies and procedures at the Headquarters level, and their communication to the field, will aid in the uniformity of the delivery of services to the customers.

Also within the new concept of operations, the establishment and tracking of useful, industry accepted performance measures for each Facilities and Logistics service area will provide the effectiveness indicators that will allow NOAA to gauge the efficiency and quality of its services.

10.2.3 Management Process Analysis

Planning and Budgeting

Based on anecdotal evidence obtained from management interviews, effective planning and budgeting within NOAA for Facilities and Logistics is difficult to achieve in its present state. As budgets for functional areas are often not finalized until the middle of fiscal years, this makes the ability to plan for upcoming funding needs and the allocation of required resources very complex.

At the Headquarters level, budget planning was previously conducted within teams focused on specific services areas. For instance, an infrastructure team dealt with the budget requests of infrastructure projects like facilities maintenance and construction projects. However, the infrastructure team also handled the budget request for larger capitalized assets like aircrafts and ships. Due to the magnitude of these types of projects and the anticipated limited availability of funds, this often resulted in competing budgetary priority. Additionally, budget requests for Facilities and Logistics initiatives would often be elevated by other budget teams that were non-infrastructure focused resulting in a non-standardized approach to infrastructure-related funding requests and the lack of an ability to quantify the total funding needs for these types of projects. This caused a lack of credibility in the budgeting process and impacted the appropriated funding.

Budgeting at the Headquarters level has recently transitioned to a Program Planning Budgeting System (PPBS), which begins with a baseline assessment of the current situation and examines the current capacity against future needs. The future needs are then evaluated to determine their priority and qualification for the budget request. Although just recently implemented, this PPBS system has been viewed by some within NOAA as limited because it purportedly does not recognize the existence of previous initiatives that were in place and planned for future budgets.

The concept of operations that has been proposed by Booz Allen for Facilities and Logistics identifies the need for additional resources at the division level devoted to the budget process at the Headquarters. The ability of these resources at the division level to form an informal 'budget committee' and collectively plan out the needs of the Facilities and Logistics functions, will establish a more comprehensive and standardized approach to the budgeting process. Additionally, the 'budget committee' will be supported by the improvement in service level workload reporting and performance measurement tracking, which will allow for more effective evaluation of necessary resources anticipated for upcoming initiatives or projects.

Additional information on the proposed concept of operations for Facilities and Logistics can be found in Section 9 of Deliverable Three: Recommendations for Cost Effective Service Improvement, December 13, 2003.

Workload Forecasting

Within Facilities and Logistics functions, workload forecasting is typically conducted on the local, ASC level. Anticipated workloads are often based on those of previous years or through communication with customers regarding upcoming initiatives or projects.

The ability to use historical workloads, as an indicator for future requirements, is often dependent on the methods or tools in place to track present day activity levels. Currently, the strength of this tracking varies from ASC to ASC where certain ASCs have been more diligent in informal, comprehensive activity reporting than others. While ABC does call for high-level activity reporting for the Data Elements reports, the reported performance does not thoroughly convey the range of activities that are categorized under one service.

For instance, ABC reporting for Real Property Acquisition transactions combines all real property acquisition activities into one generic category. When evaluating the various types of transactions that qualify as real property acquisition (i.e. GSA leased, direct lease, or radio tower space acquisition for RF equipment), the differences in the level of effort and time required for each is very evident. The ABC process does not capture this. It has been typically left up to the individual ASCs to track this type of comprehensive workload data and their ability to do so has been inconsistent.

Policy Development and Documentation

During each of the ASC interview sessions, as well as during discussions with staff at Wash DC and Headquarters, Booz Allen asked specific questions in an attempt to determine the amount of time and resources being applied to oversight and policy functions versus operational support.

In the ASCs, a minimal amount of time is being spent on oversight activities and on the development of policies. The majority of the staff at each ASC is focused on providing operational, day-to-day support for a particular service area within the facilities and logistics business line. A portion of the FLD Chief and Branch Chief time is spent on oversight, however they are also actively involved in the delivery of day-to-day services. It should be noted, however, that both management and staff at the FLD level do spend a portion of their time each year developing new or updated procedures to support the policies provided by Headquarters.

Approximately 21.5 of the 106.9 FTEs in the Facilities and Logistics service areas are dedicated to policy development and documentation at Headquarters[21]. Exhibit 10-11 shows the distribution of oversight/policy activities versus operational activities, based

[21] Includes 20.7 FTE aligned to purely Headquarters activities and 0.8 FTE that provide policy/oversight support to Wash DC.

on Booz Allen current understanding of workload distribution. This data includes all government and contractor FTEs.

Exhibit 10-11: As-Is Operations vs. Policy/Oversight FTE Delineation

	EASC	CASC	MASC	WASC	WASH DC	HQ	TOTAL FTEs	TOTAL PERCENTAGE
FACILITIES AND LOGISTICS	10.0	47.5	35.5	71.4	86.2	20.7	271.3	100.0%
OPERATIONS	9.0	46.5	34.5	70.4	85.4	0.0	245.8	90.6%
POLICY / OVERSIGHT	1.0	1.0	1.0	1.0	0.8	20.7	25.5	9.4%

Note: FY 2003 total FTEs associated with operations and policy/oversight

Within the To-Be operations for Facilities and Logistics proposed by Booz Allen, the responsibility for policy development and oversight will be entirely centralized at Headquarters. The allocation of additional resources devoted to the Headquarters function for facilities and logistics is intended to improve the present day situation where specific resources devoted to the policy development and oversight function have been limited and are often distracted by involvement in operations type work.

Efficiencies gained through the improvement in service delivery at the operations level proposed in the To-Be scenario will allow for internal Facilities and Logistics resources to be realigned to Headquarters as needed. Exhibit 10-12 shows the distribution of FTEs devoted to policy and oversight versus operations.

Additional information on the proposed concept of operations for Facilities and Logistics can be found in Section 9 of Deliverable Three: Recommendations for Cost Effective Service Improvement, December 15, 2003.

Exhibit 10-12: Overview of To-Be Policy/Oversight vs. Operations FTE Delineation

	FTE DISTRIBUTION DATA			
	EASTERN OPS	WESTERN OPS	HQ	TOTALS
Oversight/Policy Activities	0 FTE (0%)	0/0%	37.4/100%	37.4/17%
Operational Activities	92.4/100%	90.3/100%	0/0%	182.7/83%
Total	92.4	90.3	37.4	220.1

Process Design and Technology Utilization

A communications disconnect exists between Headquarters and field personnel within the various business lines. This often results in the need to customize or modify processes at the field level to develop solutions to problems experienced in conducting daily work. This localized approach has contributed to the inconsistency of the service delivery since adjustments or adaptations to the process developed at one ASC are usually not implemented by all ASCs.

Specific recommendations provided by Booz Allen for the Facilities and Logistics services call for thorough analysis of either the organizational or process level to examine the efficiencies/inefficiencies that exist within the service lines. Existing efficiencies will be leveraged and expanded across the service line to allow for process standardization. Additionally, the focus on consolidation of delivery points and the establishment of communities of practice will bolster the ability create standardized service delivery.

Information technology systems specific to individual functions are available to select business lines within the Facilities and Logistics area. Other business lines that do not use or need custom IT applications use the basic MS Office Suite products

The following section summarizes the a selection of systems currently in place across the Facilities and Logistics service lines:

- Design and Construction processes and activities at NOAA currently leverage many of the typical MS Office Suite products for analyses, project scheduling, and document development. In addition, this service area uses computer aided design software. At this time, no project management/reporting information systems are currently in use.
- The Real Property services program at NOAA leverages a recently implemented system for portfolio management and reporting. This system, known as Federal Real Property Management (Fed RPM), is a web-based information management system that will track all of NOAA's real property interests, when fully implemented. The organization is currently in the process of migrating data from the legacy system (RISMIS), recording additional property level data, and developing standardized management reports.
- The Personal Property Management program leverages a web-based information management system called Sunflower to track all capitalized and non-capitalized assets. All assets valued at $5,000 or greater are tracked in the Sunflower system. In addition, all assets that are designated as sensitive are also tracked in this database. Sensitive assets include computer equipment, firearms, etc. There are currently nearly 100,000 personal property assets in the Sunflower system with a total value of approximately $5.5 billion.

Booz Allen has recommended the implementation of Commercial Off-the-Shelf information technology systems to meet the project management and information

reporting needs of the Design and Construction and Real Property services. Additional information on these systems can be found in Section 9 of Deliverable Three: Recommendations for Cost Effective Service Improvement, December 15, 2003.

Staff Training and Organizational Development

Due to the lack of resources available to the facilities and logistics service areas, training and other forms of organizational or professional development have been very limited. Prior to the limitation of resources, personnel from the FLD service areas have benefited from annual opportunities to meet collectively and learn from the experiences, best practices and general sharing of ideas that occurs in these instances.

Presently, the lack of resources available for travel has limited the ability for this to take place. FLD staff have resorted to teleconferences that typically occur on an irregular basis and do not always allow for the exchange of ideas that has and does occur in a more formal training situation.

The proposed concept of operations for Facilities and Logistics institutes an organizational and operational structure that encourages and establishes a collaborative working environment. Through the consolidation of the Facilities and Logistics operations to the Eastern and/or Western Operations, Booz Allen is recommending the concept of Centers of Excellence where the Facilities and Logistics staff will not only benefit from the presence of others engaged in the same business line, but also the ability to collaborate across business lines. This will be particularly useful in the areas of Design and Construction, Real Property and Environmental Compliance, Safety and Health where the staff will be able to access a common information technology system and leverage the knowledge and capabilities of their peers in carrying out project work. Additional information on these recommendations can be found in Section 9 of Deliverable Three: Recommendations for Cost Effective Service Improvement, December 15, 2003.

Performance Measurement, Reporting, and Accountability

Certain performance measurements for facilities and logistics services are established through Service Level Agreements with Facilities and Logistics customers and are tracked by NOAA for the purpose of ABC reporting. These measurements include:

- Design and Construction
  - Percentage of projects on time and on budget (80% target performance level)
- Buildings Management
  - Percentage of service calls responded to within 24 hours (90% target performance level)
- Real Property Acquisition and Management
  - Percentage of new space actions completed upon agreed upon timeframes, after receipt of approved requests (90% target performance level)

  - Percentage of renewal options exercised within contract requirement (80% target performance level)
- Personal Property Management
  - Percentage of transaction requests accurately processed within 10 calendar days (90% target performance level)
- Printing and Publications
  - Percentage of printing requests processed by agreed upon delivery date (95% target performance level)

As previously mentioned, the metrics that are tracked by NOAA for ABC reporting are not necessarily aligned to industry-accepted metrics that provide greater detail on the effectiveness and efficiency of facilities and logistics organizations.

The Benchmarking Study and the best practices identified previously provide some insight into the types of performance measures that NOAA should track, in order to more fully assess current performance and the impacts of proposed changes. At this point in time, comprehensive tracking tools do not exist at NOAA, or specifically within the facilities and logistics function, to consistently and automatically capture and calculate costs, productivity, and workload. This provides greater opportunity for error in reporting data and metrics through the ABC process. Examples of key measures that should be captured to provide a better idea of actual workload, productivity, quality and service include:

- Design and Construction
  - Number of construction projects completed on schedule and within budget, based on cycle time and cost estimate tolerances established for NOAA
  - Number of work hours required to complete various types of FMRS and major construction projects, as well as the costs associated
- Real Property Acquisition and Management
  - Number of real property contract transactions completed per year, per warranted FTE, per contract type (i.e. – land purchases, radio tower space leases, or direct lease acquisitions), as well as the average cost per transaction
- Personal Property Management
  - Number of personal property items added to/removed from the Sunflower system per FTE, per year, as well as the average cost per transaction
- Printing and Publications
  - Number of printing/publication jobs processed per FTE, per year, as well as the average cost per transaction
- Other Performance Measures

- Individual, service area, and functional area performance goals, based on metrics that are consistently captured and applied across the organization
- Standard and periodic customer satisfaction results

Reporting, for the purposes of ABC or other needs, does occur within NOAA on a frequent basis. Information obtained during interviews conducted at the ASCs indicated that, although not specifically tracked, reporting requirements occupy a significant portion of time for those at the management and practitioner level. Requests for data often require a short turnaround time and call for information that is not always readily available. This further points out the limitations brought about by non-standardized reporting and data collection systems in that obtaining and preparing data for these requests often take an unnecessarily longer amount of time.

Performance Analysis and Improvement

As performance data collected within the NOAA Facilities and Logistics community has been limited in both quantity and quality, analysis of this information has been very basic and has usually been conducted for the purposes of ABC reporting. This high-level analysis does not produce the type of information that allows for in-depth examination into the details of the business lines. Subsequently, the ability to glean opportunities for improvement from this data is extremely limited and processes often go unchanged.

Exceptions do occur at the local level where informal information tracking may occur and individual practitioners may examine collected data and implement improved processes. An example could be the informal tracking of information pertaining to the Personal Property function within WASC where the practitioner identified a trend towards incomplete information originating from customers, which was hindering her ability to add customer inventory to the Sunflower Database. Through the modification of a form providing the necessary information, the practitioner has estimated a 40% improvement in this process.

Potential opportunities for improvement exist within multiple Facilities and Logistics services. The identification of these opportunities is directly related to the ability to effectively track the service specific performance measures and analyze the areas of existing strengths and weaknesses.

10.3 RECOMMENDATIONS AND IMPLICATIONS

10.3.1 Recommendations

This section describes each of the proposed recommendations for facilities and logistics, including a high-level description of the recommendations, benefits and rationale for the recommendations and the impact of the recommendation on operating costs.

Based on the analysis conducted on the workload and existing capacity throughout the NOAA Facilities and Logistics functional area, Booz Allen has developed a series of recommendations aimed at improving the level of service delivered to customers. These recommendations are detailed throughout the following sections.

RECOMMENDATION FL.1: Consolidate design and construction (D&C) services delivery capacity to Eastern and Western Operations and implement a web-based project management system to support D&C

Currently, D&C services staff are located throughout the four field ASCs and at WASH DC. The scope of construction projects varies across the ASCs with major projects predominantly handled by WASC, CASC, and WASH DC. The smaller, FMRS-type projects are mostly being managed by EASC and MASC. The current geographic and organizational structure of the D&C program does not support the consistent delivery of service to customers through the use of standardized policies and procedures. As D&C staff are often restricted to the workload at their respective ASCs, 'work sharing' is uncommon, and the ability to realize a community of practice is minimal.

The proposed recommendation consolidates the D&C program to two geographic locations staffed with a comprehensive roster of the skill sets necessary to address construction projects of varying scopes. D&C services delivery capacity will be located at Western Operations in Seattle, WA and at Eastern Operations in Washington, DC. Staffing levels for each location will be based on anticipated workload and an established target level of transactions per employee.

As presented in the recent workload analysis deliverable, the operations component of the existing, decentralized D&C program is composed of 19.9 FTE[22]. In the newly proposed, consolidated model, the optimal number of FTEs for operations delivery capacity is estimated to be 19 FTE, split between the two locations. This required delivery capacity is calculated based on a target annual workload per FTE of either 2.0 major construction projects or 8.0 FMRS projects.

The targeted annual workload was derived through an analysis of existing NOAA productivity metrics, which were benchmarked both internally and externally. Within

[22] This figure excludes the 4.2 FTE at HQ. These FTE have been omitted, as they are not engaged in D&C operative work. The total number of FTE involved in the existing D&C program is 24.1.

the new structure, D&C FTE will operate in a 'Center of Excellence' model, where they will be able to experience the benefits of a community of practice and the increased efficiencies gained by knowledge and work sharing.

As part of this recommendation, Booz Allen has proposed the implementation of a web-based commercial-off-the-shelf (COTS) project planning, estimating, management, and reporting system that will facilitate collaborative work processes and streamline the reporting process for Real Property and Facilities services.

The information technologies required to implement the project management and reporting system exist in today's marketplace. The real property acquisition program, as well as the environmental compliance, health, and safety program, can also leverage this same project management and reporting system. This level of integration will serve to streamline the coordination and communications process between service areas and begin to provide a comprehensive organizational history of real property and facilities related project efforts.

RECOMMENDATION FL.2: Provide all policy and procedures direction at a consolidated Construction Projects Office (CPO) at the Real Property and Facilities Headquarters in Washington, DC

Currently, the D&C program at NOAA does not approach major construction projects with a consistent strategy. In one scenario, the ASC staff might handle all aspects of a project from initiation to execution. In a second scenario, the ASC staff might be responsible for the day-to-day work efforts, but an individual from Headquarters provides oversight/management support for the project. The level of support in this second situation can vary significantly. In a third scenario, the major construction project might be directly managed by D&C staff from Headquarters, with the ASC staff providing secondary support as required. The lack of consistency in approach to major construction projects has blurred the roles and responsibilities of all parties involved.

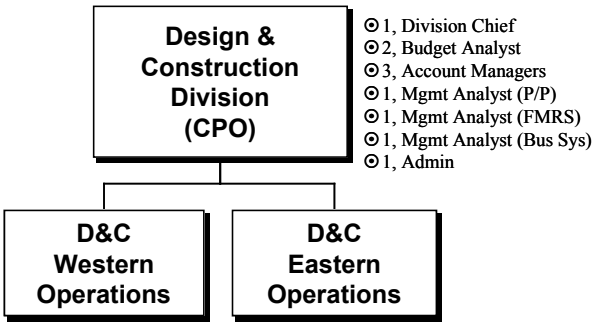
The FMRS projects process, which is meant to address smaller construction projects, also needs additional structure to be effectively managed as a nationwide process. In the past, project requests were centrally evaluated, discussed, and prioritized prior to each fiscal year. This type of coordination is required to leverage the minimal funds available each year for FMRS-type projects.

The Project Development and Management (PDAM) process and the Construction Works in Process (CWIP) reports were developed to provide some structure to the overall projects process at NOAA, but a more comprehensive solution is required at this point in time. The D&C program lacks a clear delineation of the roles and responsibilities associated with the policy and procedural oversight required. Consequently, communication of policy and procedure to the field operations has been inconsistent and has resulted in a lack of coordination.

Booz Allen recommends establishing a consolidated Construction Projects Office (CPO) at the Headquarters level (see Exhibit 10-13) to effectively remedy the lack of policy and procedural oversight for all types of projects. The CPO would have three key responsibilities:

- Serve as the centralized point of coordination for the project prioritization, project estimating, project planning, resource planning, and project oversight associated with all major construction projects at NOAA;
- Serve as the centralized point of coordination for each Line Office facilities point-of-contact and the Eastern and Western Operations to identify, prioritize, and track all non-major (FMRS) construction projects at NOAA; and
- Implement and manage the COTS, web-based project planning, estimating, management, and reporting system.

Exhibit 10-13: Proposed Structure for the Construction Projects Office



As indicated in the Workload Analysis deliverable, informational interviews conducted with D&C HQ staff indicated a current staffing level of 4.2 FTE engaged in the policy and procedural oversight roles associated with HQ operations. In the CPO model proposed by Booz Allen, this number would increase to ten FTE. [23] This increase includes the transfer of three FTEs from the current Office of the Chief Administrative Officer (see Recommendation GL.1).

Exhibit 10-13, which depicts the proposed CPO structure, also identifies the specific roles/positions that are required to effectively and efficiently manage this new division. In addition to a Division Chief and an administrative assistant, the following key positions are proposed:

- **Budget Analyst** – In an effort to provide an appropriate level of support for budget formulation, analysis, and execution, 2 budget analyst positions are recommended for the Design & Construction (CPO) service area at the

[23] There are currently 3 Facilities Constituent and Outreach Managers (GS-15 level) that perform the roles of project director and policy and procedural development for the D&C process. However, it should be noted that 2 of the 3 individuals in the Facilities Constituent and Outreach Manager role have little or no background in the areas of Facilities & Logistics. As such, NOAA should re-evaluate the nature of these positions as they relate to the larger enterprise mission.

Headquarters level. The provision of dedicated budget analysts allows for a group of staff to focus on capital budgeting activities, without being distracted by day-to-day project management activities. This is a critical issue at NOAA, given the scale of ongoing projects and construction activity.

- **Account Manager** – To effectively provide coordination, project planning, prioritization, and oversight support for ongoing major construction projects, 3 account manager positions are recommended for the Design & Construction (CPO) service area at the Headquarters level.
- **Management Analyst** – A total of three management analyst positions are recommended for the Design & Construction (CPO) service area at the Headquarters level. The first analyst will be focused on the development, updating, and management of all policies and procedures related to D&C. The second analyst will be focused on the management of the FMRS-type project proposal, evaluation, and prioritization process. This individual will also serve as the focal point for FMRS-type project data collection and tracking. The third analyst will be focused on the management and maintenance of business systems to support the D&C process, with specific attention on the program's web-based commercial-off-the-shelf project management applications.

The overall staffing associated with the D&C process has been optimized based on the workload targets established in Section 9.5.1. The total FTE associated with D&C is proposed to increase to 29.0 FTE from 28.6 FTE. Fluctuations in demand for services should be managed through the use of IDIQ contracts with third-party service providers.

The clear delineation of CPO staff roles and the consistent and effective communication of the policy and procedures developed within this office, will improve the coordination efforts associated with the overall D&C program. Specifically, the CPO will serve as the centralized point of coordination for the project prioritization, project planning, resource planning, and project oversight associated with all major and FMRS construction projects at NOAA. The CPO will also function as the coordination point for the Line Office facilities points-of-contact, as well as the Eastern and Western Operations.

RECOMMENDATION FL.3: Consolidate real property acquisition and management (RPAM) services delivery capacity to the Eastern and Western Operations and build interfaces from existing systems to new project management system

Currently, RPAM services staff are located throughout the four field ASCs and at WASH DC. The current geographic and organizational structure of the RPAM program does not support the consistent delivery of service to customers through the use of standardized policies and procedures. As RPAM staff are often restricted to the

workload at their respective ASCs, 'work sharing' scenarios are the exception and the ability to realize a community of practice is minimal.

Similar to the model proposed for D&C services delivery, Booz Allen recommends the consolidation of the real property acquisition and management services staff to Eastern and Western Operations. In this model, business line processes and delivery capacity will benefit from operating in a 'Center of Excellence' model, where staff can establish a community of practice and function in a collaborative manner. Staffing levels for each location will be based on anticipated workload and an established target level of transactions per employee.

Proposed staffing levels for RPAM staff indicate a net reduction of 7.40 FTE based on the current level of 25.9 FTE and an anticipated total of 18.50 FTE. This staffing level was established through analysis conducted on the internal performance across the RPAM service area. As previously mentioned in section 9.4.2, Booz Allen used a target rate of 75% that of the best internal performer and then weighed this metric against the anticipated workload within the RPAM service area to determine the optimal level of staffing required to effectively handle the projected demand. The number of transactions per FTE was set at 44.6.

Of the 18.50 FTE proposed to support the RPAM program, 12.0 FTE would be dedicated to operations and transaction related work. The remaining 6.50 FTE would be dedicated to program management activities, such as Headquarters oversight, program planning, budget planning, etc. It is anticipated that the 6.50 FTE would include the Division Chief for Real Property and Facilities, a Branch Chief for RPAM, a budget analyst, a management analyst dedicated to FedRPM, a management analyst dedicated to GSA Rent, a shared administrative assistant and a shared policy/procedures development analyst.

RPAM staff activities will also be supported by the web-based COTS project planning, estimating, management, and reporting system proposed in the D&C section above. This system will facilitate collaborative work processes and streamline the reporting process for the Real Property and Facilities program. As mentioned previously, the D&C, as well as the environmental compliance, health, and safety program, can also leverage this same project management and reporting system. This level of integration will serve to streamline the coordination and communications process between service areas and begin to provide a comprehensive organization history of real property and facilities related project efforts.

RECOMMENDATION FL.4: Consolidate personal property management (PPM) services delivery capacity at Eastern Operations

The current structure of the PPM program decentralizes operations throughout the four field ASCs and at WASH DC. This structure, combined with lack of optimal communication between HQ and the field, has resulted in a program that is not

functioning at consistent levels of performance and effectiveness. As presented in the Workload Analysis deliverable, the range of transactions per FTE pointed to the inconsistency of performance. The PPM groups that displayed a higher level of productivity typically developed localized processes or procedures that streamlined the associated duties of the personal property staff. In other instances, such as with the WASH DC activity levels, PPM staff are able to leverage a bar code scanning system which automates the inventory/transaction process.

Booz Allen recommends establishing a consolidated PPM office at the Eastern Operations. The existing decentralized model for services delivery does not allow for a critical mass of PPM staff in any location, which precludes the program from optimizing comprehensive staff performance. In the proposed model, business line processes and delivery capacity will benefit from operating in a 'Center of Excellence' model where staff can establish a community of practice. PPM staff will be aligned to specific customers and manage all PPM activities for their respective customers nationwide. In establishing the new model, 'work sharing' procedures will be established to optimize PPM staff capacity.

Proposed staffing levels for the PPM program are based on a proposed workload target of personal property transactions 7,130 transactions per FTE per year. This personal property transaction workload target is based on achieving 75% of WASC's internal benchmark of 9,507 personal property transactions per FTE. The decision to hold the target workload at 75% of the best internal benchmark will allow for a more effective transition, while still allowing an increase in anticipated productivity per FTE.

Proposed staffing levels for PPM staff indicate a net reduction of 4.6 FTE based on the current level of 24.9 FTE and an anticipated total of 20.3 FTE. Of the 20.3 FTE, approximately 16 FTE will be dedicated to PPM operations activities. An additional 4.3 FTE will be dedicated to personal property program management activities, such as Headquarters oversight, program planning, budget planning, etc. These 4.3 FTEs will be located at the Real Property, Facilities & Logistics Headquarters in Washington, DC. It is anticipated that the 4.3 FTE will be composed of a shared Division Chief, a branch chief, a management analyst dedicated to the Sunflower system, a management analyst dedicated to fleet activities, a shared budget analyst, a shared administrative assistant, and a shared policy/procedures development analyst.

RECOMMENDATION FL.5: Implement a mobile, handheld personal property inventory management and tracking technologies to facilitate the utilization of standardized inventory control processes to support annual audit activities

NOAA's finance and administrative services is the entity responsible for the annual audit of all owned and managed personal property. Unfortunately, due to limited

staffing and the lack of a travel budget, the regional property managers and their staff are unable to conduct the on-site inventory audit. The audits are conducted in the metropolitan DC area, due to the availability of full-time contractor support. The audit efforts are further supported by a bar code scanning system that is used to track all personal property in the Sunflower system.

Booz Allen recommends that the annual personal property inventory audits be managed at the Headquarters level with support from third-party service providers and the Line Office-based property custodians.

As the transfer of information in the current PPM process is substantially paper based, the incorporation of mobile, handheld personal property inventory management tracking technologies would greatly reduce the inefficiencies engrained in the current process. The level of effort associated with the audit process would be defined by the required inventory efforts and the current process would change substantially. To minimize increases to full-time staffing, NOAA would likely benefit from outsourcing the inventory audit process. A third-party service provider currently conducts the inventory audits in the National Capital Region, so a precedent for the recommended process does exist.

NOAA will need to engage in a business process reengineering analysis to optimize a process that incorporates the bar code scanning technologies. A nationwide IDIQ contract for inventory audit services would also need to be established.

RECOMMENDATION FL.6: Consolidate printing and publication (P&P) services delivery capacity at Eastern Operations

The current structure of the P&P program decentralizes operations throughout the four field ASCs and at WASH DC. This structure has contributed to a program that is not functioning at consistent levels of performance and effectiveness. As presented in the workload analysis deliverable, the range of transactions per FTE pointed to the inconsistency of performance.

The P&P staff that display a higher level of productivity typically developed streamlined, localized processes or procedures. In addition, the comparatively low levels of demand for P&P services and the minimal face-to-face interaction with customers do not lend themselves to a decentralized structure.

Booz Allen recommends establishing a consolidated P&P office at the Eastern Operations. The existing decentralized model for services delivery does not allow for a critical mass of P&P staff in any location, which precludes the program from optimizing comprehensive staff performance. In fact, most P&P staff already provide support to other programs, in a collateral fashion. Regardless of the consolidation to the Eastern Operations, some P&P staff will need to remain in the Western Operations location to support copy center and duplication center activities.

In the proposed model, business line processes and delivery capacity will benefit from operating in a 'Center of Excellence' model, where staff can establish a community of practice. P&P staff will be aligned to specific customers and manage all P&P activities for their respective customers nationwide. In establishing the new model, 'work sharing' procedures will be established to optimize P&P staff capacity.

The proposed FTE count for Headquarters is based on a proposed workload target of 1,086 jobs processed per FTE per year. This printing and publication workload target is based on achieving 75% of CASC's internal benchmark of 1,450 printing and publication transactions per FTE. The decision to hold the target workload at 75% of the best internal benchmark will allow for a more effective transition as well as improvements in service performance.

Proposed staffing levels for P&P staff indicate a net reduction of 3.7 FTE based on the current level of 17.5 FTE and an anticipated total of 13.8 FTE. Of the 13.8 FTE, approximately 7.5 FTE will be dedicated to copy center and duplication activities in the Eastern and Western Operations locations. An additional 2.0 FTE will be dedicated to the processing of printing and publication jobs, as requested by customers.

The remaining 4.3 FTE will be dedicated to P&P program management activities, such as Headquarters oversight, program planning, budget planning, etc. and located at Headquarters in Washington, DC. It is anticipated that the 4.3 FTE will be composed of a branch chief, a printing specialist dedicated to the GPO COTR activities, a printing specialist dedicated to duplicating plant COTR activities, a shared Division Chief, a shared budget analyst, a shared administrative assistant and a shared policy/ procedures development analyst.

To facilitate the consolidation of P&P services, it is also recommended that NOAA establish a graphics design services contract vehicle in Boulder, CO that can be accessed by any of the on-site customers at the Boulder campus (eliminating the need for 0.55 FTE dedicated to graphics design from P&P staffing). Lastly, while Booz Allen has not recommended outsourcing as an immediate solution, NOAA should examine and leverage outsourcing opportunities in later phases of the consolidation process.

RECOMMENDATION FL.7: Maximize outsourcing / partnership opportunities for Buildings Management nationwide, with specific focus on Seattle, WA and Washington, DC

Numerous public and private entities benefit from the outsourcing of buildings management activities at all of their facilities nationwide. In many cases, partnering agreements are established with nationwide, third party service providers to deliver consistent services throughout entire portfolios. Although NOAA has leveraged the benefits of outsourcing for some locations, others locations are still employing government FTE for these activities. This insourced model does not provide NOAA with the flexibility that is often required in today's marketplace.

At WASC, buildings management services are provided by 3.5 government FTE and 38.0 contractor FTE. In the Washington, DC metro area, buildings management services are provided by 10.3 government FTE and 10.0 contractor FTE.

Booz Allen recommends that NOAA conduct a comprehensive baseline analysis, requirements analysis, and blueprint development with regards to the buildings management and services program in Seattle, WA and Washington, DC. To the extent possible, NOAA should maximize opportunities to outsource buildings management services nationwide and leverage potential partnering opportunities with third party service providers.

RECOMMENDATION FL.8: Optimize Shipping and Handling/Storage Program Cost Structures

Based on field interviews and analysis of the activities managed under the shipping and handling/storage program at NOAA, there may be an opportunity to optimize cost structures or better align costs with the services provided. To determine the size of the opportunity, Booz Allen recommends that NOAA conduct a comprehensive baseline analysis, requirements analysis, and blueprint development with regards to the shipping and handling/storage program. Specifically, the Washington, DC metropolitan area program should be evaluated in detail, as a substantial amount of the total program cost is attributed to the DC operations.

Proposed staffing levels for shipping & handling/storage services staff indicate a net reduction of 26 FTE based on the current level of 85.5 FTE and an anticipated total of 59.5 FTE. In support of the overall concept of operations, delivery capacity for this service area will be extracted from the Norfolk, VA location and absorbed by Eastern Operations staff.

NOAA should explore the possibility of leveraging outsourced partner relationships to provide shipping and handling/storage services nationwide. Currently, 36 FTE out of the 85.5 FTE that provide shipping and handling/storage services at NOAA are outsourced.

In an effort to provide additional governance and management capacity for the shipping and handling/storage program, Booz Allen recommends a modification to the FTE that are currently allocated to the Headquarters function (which is outlined in more detail in Section 9.5.11). A total of 2.3 FTE are proposed for the Headquarters function, to be composed of a branch chief, a shared Division Chief, a shared budget analyst, a shared administrative assistant and a shared policy/procedures development analyst.

RECOMMENDATION FL.9: Consolidate copy center, buildings management, shipping/handling, storage/storeroom services delivery capacity in Boulder, CO under a comprehensive facilities management contract

Currently, a variety of facilities and logistics services, as described below, are provided to the onsite campus customer population in Boulder, CO. If the existing MASC structure and organization is eliminated, a new structure must be put in place to ensure continued delivery of these selected facilities and logistics services, as they are integral to infrastructure maintenance at the Boulder campus.

Booz Allen recommends that the following services and FTE be consolidated under a comprehensive facilities management contract in Boulder, CO:

- *Copy Center (within P&P) – 0.25 government FTE;*
- *Buildings management (includes mail services) – 7.5 contractor FTE; and*
- *Shipping/Handling Storage/Storeroom – 11.3 government FTE.*

All of these services would be provided under a single facilities management contract, which would be managed by one government FTE onsite. This on-site COTR would report directly to the Branch Chief, Shipping and Handling/Storage in Washington, DC. This onsite COTR would also have an indirect reporting structure to the buildings management program at Western Operations, to provide a more geographically proximate contact.

As part of this process, Booz Allen also recommends that management responsibility for the Healthcare Unit be transferred from Workforce Management in Boulder, CO to the facilities management COTR, who will also be located in Boulder. Government FTE will still staff the Healthcare Unit, as this function has already been analyzed through the A-76 process.

RECOMMENDATION FL.10: Transfer CASC buildings management services oversight capacity (located in Kansas City, MO) to Lafayette, LA and transfer contract/management responsibility for on-site buildings management contractors to NMFS

Currently, NOAA's finance and administrative services provides buildings management services at a NOAA owned facility in Lafayette, LA. Based on information obtained during field interviews, NMFS is the primary customer of this Louisiana facility and the possibility of absorbing the buildings management function locally has been discussed in the past. This is the only facility that is not collocated with an ASC that receives buildings management services from the administration and finance organization. These types of buildings management and facilities management

services are typically provided directly by Line Offices in their office locations nationwide.

Booz Allen recommends that buildings management responsibilities for the Lafayette, LA facility transfer from the administration and finance organization to NMFS, which is located on-site in Lafayette and is the primary customer of the Louisiana facility. This transfer of responsibilities will completely alleviate the need for a buildings management function within Kansas City and further support the Booz Allen recommended model of operation.

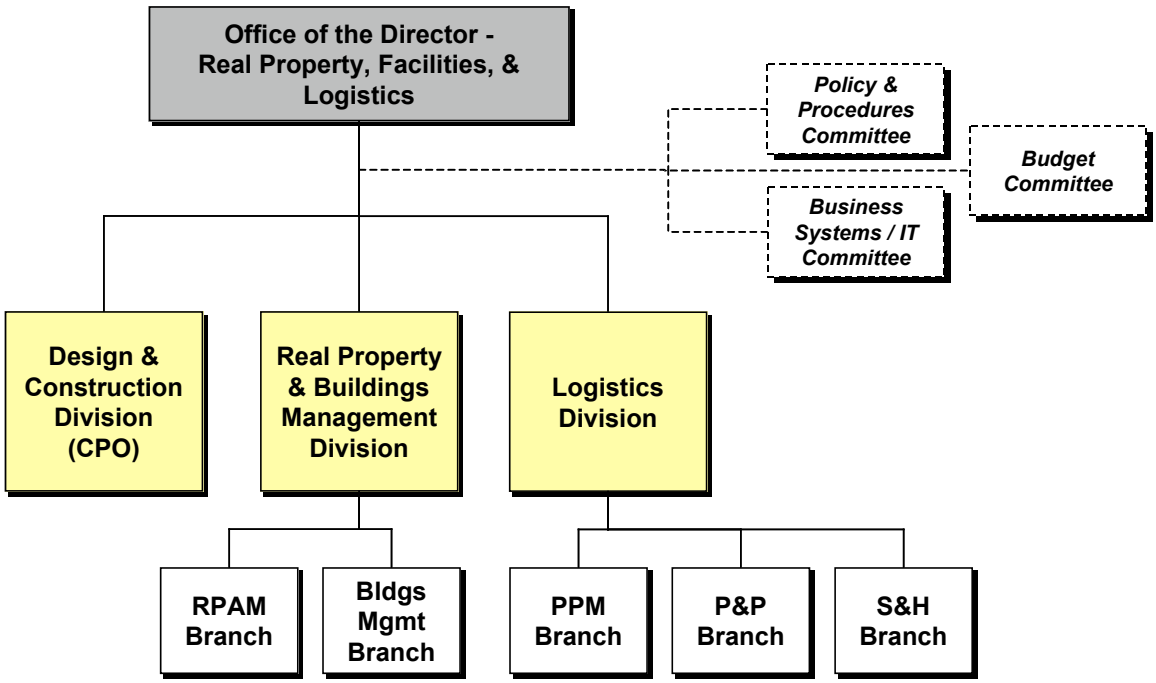
CASC currently allocates 0.7 government FTE to support this Louisiana facility buildings management program. A total of 3.5 contract FTE who reside on-site in Lafayette are managed remotely from Kansas City. These FTE will remain on-site but will be managed locally and funded by the local Line Office customer.

RECOMMENDATION FL.11: Establish a Director position for Real Property, Facilities, and Logistics, establish service Division Chief positions at Headquarters, and realign all Operations based staff to report directly to their respective Headquarters-based Division Chief

To more effectively support the newly proposed functional and service alignment of resources within the NOAA administration and finance organization, a new set of management roles is proposed for the facilities and logistics Headquarters organization. As described in the overall concept of operations, all staff in the Eastern and Western Operation locations will report directly to their respective Division Chiefs at Headquarters.

An overview of the proposed management structure is provided in Exhibit 10-13.

Exhibit 10-13: Overview of Proposed Facilities and Logistics Management Structure



Within the proposed management structure, Booz Allen recommends that the following divisions, branches, and positions be established:

- Office of the Director - Real Property, Facilities and Logistics
  - This office will serve as the focal point for all design and construction, real property, facilities, and logistics services within NOAA
  - The individual Division Chiefs within the Real Property, Facilities, and Logistics organization will report directly to the Director
  - In addition to the Director – Real Property, Facilities, and Logistics, this office will host several other positions, including:
    - One Budget Analyst – Focused on function-wide budget formulation and analysis support for the Director and Division Chiefs
    - Two Management Analysts – Focused on strategic planning special studies and analyses for the Director and Division Chiefs, as well as function-wide performance measures tracking and analysis

        - Four Customer Relationship Managers – Focused on providing a comprehensive, one-stop customer relationship management capability. These customer-facing individuals will be responsible for developing, updating, and managing a series of service delivery memoranda of understanding and strategic portfolio plans with the various customers of real property, facilities, and logistics services. In addition to working closely with line office senior management and facilities points-of-contact, the customer relationship managers will attend line office strategic business planning meetings to better understand anticipated workload and facilitate discussions regarding the optimal service delivery mechanisms.
        - One Administrative Assistant – Focused on providing administrative support to the Office of the Director.

- Design and Construction Division / Construction Projects Office
  - This office will provide management, leadership, and oversight for the Eastern and Western Operations D&C staff, as well as for the Construction Projects Office
  - The D&C staff in both the Eastern and Western Operations locations will report directly to the Division Chief, Design & Construction
  - In addition the Division Chief, Design & Construction, this office will host several other positions, including:
    - Two Budget Analysts – Focused on division-wide budget formulation, analysis, and execution, as well as capital budgeting support for NOAA's Design & Construction programs;
    - Three Account Managers – Focused on the provision of effective coordination, project planning, prioritization, and oversight support for ongoing major construction projects;
    - Three Management Analysts – Focused on the development, updating, and management of all policies and procedures related to D&C, the management of FMRS-type project proposal, evaluation, and prioritization processes, and the management and maintenance of business systems to support the D&C process, with specific attention on the program's web-based commercial-off-the-shelf project management applications; and
    - One Administrative Assistant – Focused on providing administrative support to the Design & Construction Division.
- Real Property and Buildings Management Division
  - This office will provide management, leadership, and oversight for the Eastern and Western Operations real property and buildings management staff

- In addition to the Division Chief, this office will host several other positions, including:
    - One Budget Analyst – Focused on division-wide budget formulation, analysis, and execution, as well as capital budgeting support for NOAA's real property and buildings management programs.
    - One Management Analyst – Focused on the development, updating, and management of all policies and procedures related to real property and buildings management.
    - One Administrative Assistant – Focused on providing administrative support to the Real Property & Buildings Management Division.
- The Real Property & Buildings Management Division will formally host two branch offices, delineated by program:
    - Real Property Acquisitions & Management (RPAM) Branch – Led by the Branch Chief, RPAM, this office will provide domain specific management and oversight to the real property acquisition and management staff located in the Eastern and Western Operations locations. The real property staff in both the Eastern and Western Operations locations will report directly to the Branch Chief, RPAM. Collectively, the RPAM staff will participate in the coordination and development of NOAA's strategic portfolio planning process. At the Headquarters level, the RPAM Branch will host the following staff / capabilities:
        - One Management Analyst – Focused on the management of all processes and activities related to the Federal Real Property Management (FedRPM) database.
        - One Management Analyst – Focused on the management of all processes and activities related to GSA rent.
    - Buildings Management Branch – Led by the Branch Chief, Buildings Management, this office will provide domain specific management and oversight to the buildings management staff located in the Eastern and Western Operations locations. The buildings management leads in both the Eastern and Western Operations locations will report directly to the Branch Chief, Buildings Management. At the Headquarters level, the Buildings Management Branch will consist of only the branch chief.

- Logistics Division

- This office will provide management, leadership, and oversight for the Eastern and Western Operations logistics program staff (includes personal property management, printing & publications, shipping & handling, and storage)
- In addition to the Division Chief, this office will host several other positions, including:
  - One Budget Analyst – Focused on division-wide budget formulation, analysis, and execution, as well as capital budgeting support for NOAA's various logistics programs;
  - One Management Analyst – Focused on the development, updating, and management of all policies and procedures related to logistics; and
  - One Administrative Assistant – Focused on providing administrative support to the Logistics Division.
- The Logistics Division will formally host three branch offices, delineated by program focus, including:
  - Personal Property Management (PPM) Branch – Led by the Branch Chief, PPM, this office will provide domain specific management and oversight to the PPM staff and contractors located at Eastern Operations. All PPM staff will report directly to the Branch Chief, PPM. At the Headquarters level, the PPM Branch will host the following staff/capabilities:
    - One Management Analyst – Focused on the management of all processes and activities related to the Sunflower Personal Property Management database.
    - One Management Analyst – Focused on the management of all processes and activities related to NOAA fleet activities.
  - Printing & Publications (P&P) Branch – Led by the Branch Chief, P&P, this office will provide domain specific management and oversight to the P&P staff and contractors located at Eastern Operations. All P&P staff will report directly to the Branch Chief, P&P. At the Headquarters level, the P&P Branch will host the following staff/capabilities:
    - One Printing Specialist – To serve as the COTR and relationship manager for the Government Printing Office.
    - One Printing Specialist – To serve as the COTR and relationship manager fof the Duplicating Plant contractors.
  - Shipping & Handling/Storage (S&H/Storage) Branch – Led by the Branch Chief, Shipping & Handling/Storage, this office will

provide domain specific management and oversight to the S&H/Storage staff and contractors located at Eastern and Western Operations. The S&H/Storage leads in both the Eastern and Western Operations locations will report directly to the Branch Chief, S&H/Storage. At the Headquarters level, the S&H/Storage Branch will consist of only the branch chief.

- In addition, Booz Allen recommends that NOAA establish a series of 'informal' committees to facilitate inter-division integration and collaboration. Various Real Property, Facilities, and Logistics division-based staff will staff these committees, as a collateral duty. For example, the budget analysts from the 3 divisions, as well as the budget analyst from the Office of the Director, will jointly form the informal 'Budget Committee'. This informal structure will allow for sharing of best practices, support strategic planning activities, and facilitate a comprehensive approach to budget formulation, policy development/implementation, and business systems integration. The informal committees proposed at this time include:
  - Policy and Procedures Committee
    - Management Analyst, Office of the Director, Real Property, Facilities & Logistics
    - Management Analyst (Policy and Procedures), Design and Construction Division
    - Management Analyst (Policy and Procedures), Real Property and Buildings Management Division
    - Management Analyst (Policy and Procedures), Logistics Division
  - Budget Committee
    - Budget Analyst, Office of the Director, Real Property, Facilities & Logistics
    - Budget Analysts, Design and Construction Division
    - Budget Analyst, Real Property and Buildings Management Division
    - Budget Analyst, Logistics Division
  - Business Systems/Information Technology Committee
    - Management Analyst, Office of the Director, Real Property, Facilities & Logistics
    - Management Analyst (Business Systems), Design and Construction Division
    - Management Analyst (FedRPM), Real Property and Buildings Management Division

- Management Analyst (Sunflower), Logistics Division
- Management Analyst (Fleet), Logistics Division

A well-defined organizational structure that is empowered with management and performance responsibilities will streamline the Headquarters to field communications process. Overall, the new alignment should drive additional accountability for service area performance and better leverage the limited resources allocated to facilities and logistics. Lastly, this structure will establish the resources required to engage in critical strategic planning for both the organization and the assets for which the organization holds fiduciary responsibility.

RECOMMENDATION FL.12: Transfer management and operations responsibilities of the National Logistics Support Center (NLSC) to the National Weather Service (NWS) (pending results from the A-76 competition)

To more effectively support the requirements of the National Logistics Support Center's primary customer base, Booz Allen has recommended transferring the management and operational responsibilities of the NLSC to the National Weather Service (NWS). The consolidation of administrative and finance service delivery points, as proposed by the Booz Allen recommendations for the new concept of operations, calls for the elimination of service delivery from the Kansas City, MO (CASC) location. However, the volume of transactions conducted by the NLSC, the number of customers served, and the significant presence of collocated customers in its current location, mandates the remained presence of the NLSC within Kansas City, MO.

The NWS's National Reconditioning Center (NRC), located onsite with the NLSC, represents an estimated 70-80% of the NLSC's transactional volume. This existing high level of effort devoted to the NRC has resulted in many of the NLSC's processes or operational systems being impacted by, or customized for the NRC. In fact, planning for the development of the next legacy Consolidated Logistics System (CLS), the NLSC's automated shipping system, is being funded by the NWS. In addition, the inventory management system used by the NLSC to track inventory levels is operated by the NWS. Due to the high level of transactional activity and operational impact, the alignment of the NLSC under the National Weather Service would create a more appropriate reporting and management structure.

Given the pending A-76 competitive sourcing study currently underway for the NLSC, the potential exists for the outsourcing of the NLSC operations. Should this be the final recommendation of the A-76 study, Booz Allen recommends the responsibility for managing the NLSC contract also be transferred to the NWS.

All FTE and cost implications of this recommendation are contingent upon the outcome of the current A-76 competitive sourcing study. All data shown within this document pertaining to the transfer of this function to the NWS assumes a government-run

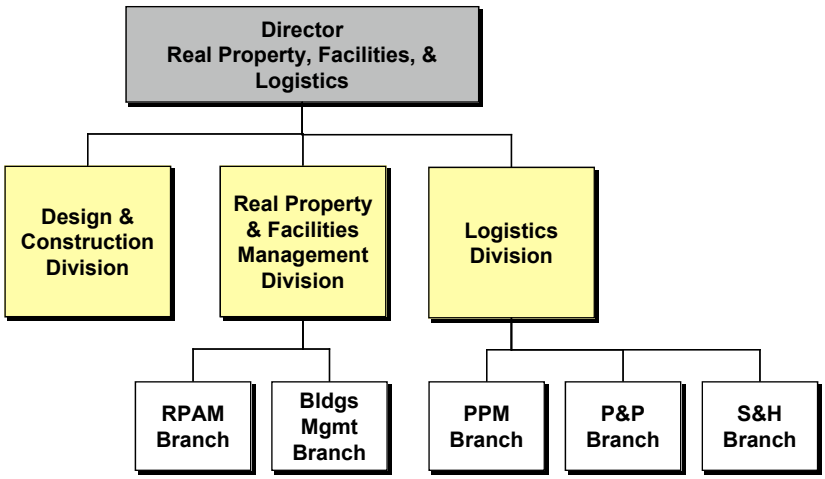
operation consisting of the present day level of NLSC FTEs. It is feasible to assume that the results of the A-76 competitive sourcing study and the corresponding impacts on operations will create a change in both the costs and FTEs associated with the NLSC. However, as the results of this study have not been released to Booz Allen, the impacts are unknown at this time and cannot be accounted for in the 'To-Be' representation of the NLSC operations.

10.3.2 Target Organization

A well-defined organizational structure that is empowered with management and performance responsibilities will streamline the Headquarters to field communications process. Overall, the new alignment should drive additional accountability for service area performance and better leverage the limited resources allocated to facilities and logistics. Lastly, this structure will establish the resources required to engage in critical strategic planning for both the organization and the assets for which the organization holds fiduciary responsibility.

An overview of the proposed management structure is provided in Exhibit 10-14.

Exhibit 10-14: Proposed Facilities and Logistics Management Structure



Changes to the structure of the proposed To-Be service delivery structure for facilities and logistics are focused around the consolidation of operations into the Western and Eastern Operations. With a few exceptions, all facilities and logistics services delivery capacity have been realigned away from Norfolk, VA, Kansas City, MO, and Boulder, CO. Due to location specific requirements, the National Logistics Support Center is maintained in Kansas City, MO and the on-site buildings management/shipping/ handling/storage services will continue to be provided from the Boulder, CO location.

The total number of FTEs directly aligned to the facilities & logistics organization in the proposed operating model is 221.1. Both government FTE and contractor FTE are

incorporated into these figures. This represents a net decrease of 50.2 in FTE in the Facilities and Logistics functional area.

10.3.3 As-Is and To-Be Comparisons of Staff and Cost

The proposed concept of operations has a significant impact on the costs and FTEs associated with the Facilities and Logistics functional areas.

A comparison of the As-Is and To-Be macro-level staffing concentration for the facilities and logistics business line is shown in Exhibits 10-15 and 10-16. These figure also identify and compare the costs associated with each scenario.

Exhibit 10-15: Total Facilities Annual Operating Costs for As-Is

Facilities	EASC		CASC		MASC		WASC		Wash DC		Headquarters		Total	
As-Is	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost
Government Labor	10.0	$ 1,134	41.0	$ 3,635	28.0	$ 2,635	25.9	$ 2,701	27.2	$ 2,635	20.7	$ 2,253	152.8	$ 14,993
Contractor Labor	0.0	$ -	6.5	$ 787	7.5	$ 897	45.5	$ 4,972	59.0	$ 4,316	0.0	$ -	118.5	$ 10,971
Variable Overhead		$ 42		$ 169		$ 200		$ 105		$ 107		$ 81		$ 704
Fixed Overhead		$ -		$ 9		$ 59		$ 12		$ -		$ 5,000		$ 5,080
Total	10.0	$ 1,177	47.5	$ 4,600	35.5	$ 3,791	71.4	$ 7,789	86.2	$ 7,058	20.7	$ 7,334	271.3	$ 31,749

Notes: All dollars are in thousands ($000s)
Calculations assume current workload and exclude effect of transition costs

Exhibit 10-16: Total Facilities Annual Operating Costs for To-Be

Facilities	Western Operations		Eastern Operations		Headquarters		Total		Percent	Net Cost Differential
To-Be	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	Change	After Transfers *
Government Labor	26.8	$ 2,741	38.4	$ 3,919	38.4	$ 4,435	103.6	$ 11,095	-26%	$ 3,898
Contractor Labor	63.5	$ 6,410	54.0	$ 3,941	0.0	$ -	117.5	$ 10,351	-6%	$ 620
Variable Overhead		$ 118		$ 151		$ 151		$ 420	-40%	$ 285
Fixed Overhead		$ 72		$ -		$ 5,000		$ 5,071	0%	$ 9
Total	90.3	$ 9,341	92.4	$ 8,011	38.4	$ 9,585	221.1	$ 26,937	-15%	$ 4,812

Notes: Calculations assume current workload and exclude effect of transition costs
Dollars are in thousands ($000s)
Western Operations Gov FTE counts include 3.1 FTE located in Boulder, CO
Western Operations Gov Costs include $380k associated with the 3.1 FTE located in Boulder, CO
Western Operations Contract FTE counts include 18 Contract FTE located in Boulder, CO
Western Operations Contract Costs include $1,439k associated with the 18 Contract FTE located in Boulder, CO
Western Operations net change consists of ($2,641) from Boulder, CO
**Projected cost savings*

The consolidation of the EASC, CASC and Wash DC into Eastern Operations has yielded a net decrease of 51.3 FTEs. Consolidating WASC and MASC into Western Operations has produced a net decrease of 16.6 FTEs. Alternatively, at the Headquarters level where additional resources were allocated to bolster the policy and procedural development, staffing counts increased by 17.7 FTEs and costs are expected to rise from $7,334,000 to a total level of $9,585,000. The decreases in FTEs and costs, as proposed by the new concept of operations for Facilities and Logistics, is substantial. There is a total anticipated decrease of 50.2 FTEs and $4,812,000 in costs.

As mentioned previously, the nature of the Facilities and Logistics functions does not allow for comprehensive presentation or interpretation of data at the highest level. In

order to examine the resources devoted to the delivery of the range of Facilities and Logistics services, it is necessary to do so on a service-by-service basis. Exhibits 10-16 and 10-17 have provided a snapshot of the FTEs and the associated cost for the As-Is and To-Be Facilities and Logistics service organization. Comprehensive breakdowns on the service areas falling under the Facilities and Logistics functional areas can be found in Section 9 of Deliverable Three: Recommendations for Cost Effective Service Improvement, December 15, 2003.

Exhibit 10-17: Summary of Facilities Operating Costs

Facilities *Summaru*	Gross Cost Differential Before Transfers *	Transfers to NOAA	Net Cost Differential After Transfers *
Government Labor	$ 1,687	$ 2,211	$ 3,898
Contractor Labor	$ 201	$ 419	$ 620
Variable Overhead	$ 137	$ 148	$ 285
Fixed Overhead	$ 9	$ -	$ 9
Total	$ 2,034	$ 2,778	$ 4,812

Notes: *Calculations assume current workload and exclude effect of transition costs.*
Dollars are in thousands ($000s)
**Projected cost saving*
**Gross cost differential before transfers: $2.0M is the actual finance and administrative services cost savings by implementing the To-Be model*
**Net cost differential after transfers: $4.8M is the total reduction in Operating Budget for finance and administrative services by implementing the To-Be Model*

A projected cost savings reduction of $4,812,000 result from changes in direct labor staffing levels and overhead costs between the current (As-Is) and future (To-Be) process-based organizational structures.

11. INFORMATION TECHNOLOGY SERVICES

11.1 OVERVIEW OF INFORMATION TECHNOLOGY SERVICES

Information Technology (IT) services within NOAA's finance and administrative services is comprised of 86 employees who are located in the four regional ASCs, the Washington, DC ASC (Wash DC) and Headquarters. The primary activities of the IT staff include, but are not limited to, help desk support, workstation and infrastructure support, and application development and maintenance support.

11.1.1 Service Portfolio

The CIO and Systems Divisions of NOAA's finance and administrative services provide support to their customers through the delivery of the following services: Infrastructure Support; Workstation Support; IT Consulting and Application Development; General and Administrative Support; and the MASC Library. The Systems Divisions work to ensure that NOAA IT strategic goals are met and realized within the ASCs. The majority of the services provided at the ASCs do not vary with the exceptions of the Information Resources Division (IRD) responsible for the MASC Library and Headquarters responsible for enterprise policy formulation.

11.1.2 Customers

The primary customers of the IT function are internal to the finance and administrative service functional areas. The IT function provides its internal customers with the underlying technology foundation that enables the functional areas to perform their mission. In addition, there is support to external customers through application development and support as well as the MASC Library. The MASC Library supports research customers located within that geographic area. Headquarters is responsible for supporting Silver Spring, Germantown, Landover, and the downtown Wash DC locations. At Headquarters, there is support for the internal finance and administrative services and for external NOAA and non-NOAA customers. Each ASC serves customers in their respective service location.

11.1.3 Organization

IT services, as well as the staff responsible for the delivering these services, are decentralized within NOAA as each line office is responsible for such services. Therefore, there is no single entity within NOAA that provides all IT services for the agency.

Amongst the ASCs, the organizational structure for the IT function is consistent. A designated IT Chief manages each IT Systems Division within an ASC, with the staff aligned by expertise to a specific activity. Additionally, each staff member is also expected to have a fundamental knowledge of the other activities provided. This is an essential component to the operating model given the relatively small size of the IT staff

at each location. Historically, the ASCs have had the latitude to shape and direct their respective IT environments.

All ASC Systems Division staff are primarily responsible for delivering operational IT services. However, Systems Division leadership may be involved with other management and administrative activities such as strategic planning and employee development. Headquarters provides high-level finance and administrative services policy development and NOAA CIO policy implementation guidance in the areas of IT, IT security, and enterprise architecture. Wash DC provides operational support in the DC Metro region similar to the support provided by the ASCs. Wash DC and Headquarters also have responsibility for application development of IT initiatives such as Grants Online. It should be noted that there is collaboration amongst ASC Systems Division Chiefs, Wash DC, and Headquarters.

11.1.4 Staffing and Costs

Based on our observations and discussions at the ASCs, Wash DC, and Headquarters, the NOAA ABC data is not accurate in terms of FTE allocation to services. Exhibit 11-1 includes both the 2002 ABC FTE and cost data (for government FTEs and contractor FTEs) and 2003 FTE data that was gathered at each ASC. 2003 cost data was not verified at the ASCs. To address this, salary data provided by NOAA HR was used to calculate the cost associated with each FTE for 2003.

In Exhibit 11-1, there are 86 FTEs in 2003 that support the IT function for NOAA's finance and administrative services. The total number of FTEs for each ASC is also provided. There is no direct Systems Division IT contractor support at the ASCs for 2003. However, in some instances, students are employed as part of the staff. As a result of their employment with each ASC, the students are classified as FTEs. Consequently, their associated cost is lower which is reflected in the cost data. There is significant IT contractor support at the Wash DC centers and Headquarters. Currently, there are approximately 44 contractors supporting these functions.

Exhibit 11-1 indicates that the staffing levels are consistent across the ASCs and are impacted by the size of the ASC. Furthermore, the larger staff size of MASC and Wash DC is the direct result of previously discussed additional services. The total functional cost for IT is $11,712,984. This cost is an unburdened direct labor cost.

The FTEs contained within Exhibit 11-1 are the actual staffed FTEs within the IT function. The current number of FTEs is less than the current number of authorized FTEs. This is a function of the limited resources for hiring staff to replace any recent IT staff turnover.

Exhibit 11-1: As-Is Total Information Technology FTEs and Costs

INFORMATION TECHNOLOGY														
	EASC		CASC		MASC		WASC		WASH DC		HQ		TOTALS	
	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*
Govt FTEs	4.7	5.0	6.2	8.0	17.1	18.0	8.1	8.0	38.4	36.0	10.4	11.0	84.8	86
Govt Cost (000)	$320.9	$304.1	$505.6	$484.0	$1,097.8	$989.2	$740.1	$592.8	$3,526.1	$2,938.1	$893.1	$964.8	$7,083.7	$6,213.0
Contractor FTEs	0.01	0	.06	0	0.32	0	0.26	0	36.94	34.00	0	10.00	31.59	44.00
Contractor Cost (000)	$1.9	$0	$6.6	$0	$39.8	$0	$14.5	$0	$3,867.2	$4,250.0	$1.7	$1,250.0	$3,931.7	$5,500.0

Notes: Dollars are in thousands ($000s)
Costs are unburdened labor
**FY 2003 is adjusted data*

11.2 FINDINGS AND CONCLUSIONS

11.2.1 Workload and Productivity Analysis

11.2.1.1 Services Selected for Details Analysis

The services selected for further study for the IT function from the Catalog of Services are Infrastructure Support, Workstation Support, IT Consulting and Application Development Support, and IT MASC Library (MASC Only). These operational services were selected because they represent a significant portion of the IT budget contained within the 2002 ABC data. The services represent 55% of the total 2002 cost for the IT functional area and the four major services provided by the ASCs and Headquarters. In addition to the operational services, there is a service category of General and Administrative/Other. This service represents typical management activities (e.g., policy formulation, employee development), smaller cost activities (e.g., high volume printing, FTS administration) and represents other activities that are not classified within the ABC study.

11.2.1.2 Internal Benchmarking

Infrastructure Support
IT Infrastructure is the underlying technological components that constitute and support an organization's IT environment. The six components of the finance and administrative services IT Infrastructure that are supported by the various Systems Divisions are: hardware, operating system, network connectivity, telecommunication, and local infrastructure policy and administration. The FTEs and cost data for this service is provided below in Exhibit 11-2.

Exhibit 11-2: Infrastructure Support FTEs and Costs

INFRASTRUCTURE SUPPORT														
	EASC		CASC		MASC		WASC		WASH DC		HQ		TOTALS	
	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*
Govt FTEs	0.60	1.45	0.63	1.95	0.54	1.57	0.35	2.80	18.46	6.40	0	0	20.58	14.17
Govt Cost	$41,119	$97,731	$50,215	$121,549	$46,910	$120,712	$32,681	$207,491	1,728,649	$523,082	$79	$0	$1,899,653	$1,070,565
Contractor FTEs	0.01	0	0	0	0	0	0.16	0	18.27	22.00	0	0	18.44	22.00
Contractor Cost	$1,164	$0	$118	$0	$0	$0	$21,044	$0	$2,248,258	$2,750,000	$0	$0	$2,270,684	$2,750,000

Notes: Dollars are in thousands ($000s)
Costs are unburdened labor
**FY 2003 is adjusted data*

The data provided above indicates the number of FTEs and cost of IT Infrastructure across each location. Within the service of Infrastructure Support, it is difficult to quantify and subsequently compare performance across multiple ASCs. This is the result of unique ASC IT environments, the relative size of each ASC staff, and IT decisions made at each center. For example, the primary IT Infrastructure at MASC is outsourced to NOAA OAR, whereas, WASC has complete responsibility for the IT Infrastructure. A further compounding factor is that some ASCs utilize file servers for the storage and retrieval of workstation data, while others store data on individual workstations.

To support performance comparisons of the ASCs for IT Infrastructure, the following measures were identified through the ABC study or were readily available from the ASC visits: number of FTEs; dollars; number of nodes supported; number of accounts; number of voice mail accounts; gigabytes; and percentage of time. These measures provide the basis for a series of performance metrics that will assist in further performance analysis. Information collected from the field indicates that these measures do not positively impact their ability to effectively manage their infrastructure. This is due to several of the metrics being quantitative in nature versus performance oriented. For example, numerous metrics will provide insights into the number of "products" within the organization, but will provide little insight into the performance of these products. Additional measures are needed, both to assist IT managers in monitoring the performance of their organization and for comparing ASCs internally and to industry best practices.

Performance data for Infrastructure Support for each ASC is provided in Exhibit 11-3. An N/A denotes a response of not applicable and an NFT denotes a response of Not Formally Tracked.

Exhibit 11-3: Infrastructure Support Performance Data

INFRASTRUCTURE SUPPORT							
Unit of Measure	EASC	CASC	MASC	WASC	WASH DC	HQ	TOTALS
FTEs	1.5	1.9	1.6	2.8	6.4	0	14.2
Cost	$97,731	$121,549	$120,712	$207,491	$523,082	$0	$1,070,565
% of Total FTE	29%	24%	22%	35%	17%	0%	16%
% of Total Cost	32%	25%	25%	35%	17%	0%	17%
# of nodes supported	159	178	223	279	1,223	0	2,062
# of accounts	86	129	129	382	810	0	1,536
# of voice mail accounts	80	112	N/A	756	N/A	0	948
Server storage space	NFT	NFT	NFT	NFT	NFT	NFT	NFT
Node/FTE	110	90	142	100	191	0	145
Account/FTE	59	66	82	136	126	0	108
Voice Mail Account/FTE	55	57	N/A	27	N/A	0	NA
Cost/Node	$615	$682	$541	$743	$427	$0	$519
Cost/Account	$1,136	$942	$935	$543	$645	$0	$696
Cost/Voice Mail Account	$1,221	$1,085	N/A	$274	N/A	$0	NA
% of Time Network is Available	NFT	NFT	NFT	NFT	NFT	N/A	NFT

The percentage of FTEs dedicated to Infrastructure at WASC appears to be a significantly higher percentage than the other ASCs. This may be attributed to WASC having a higher number of nodes to support than the other ASCs. Furthermore, Headquarters has a smaller percentage of government FTEs aligned to this service area. However, the Headquarters region has approximately 20 contractors supporting this area.

Workstation Support

Workstation Support includes those activities that are necessary to ensure that each staff member's laptop or desktop is operational and performing according to specifications. The key processes of the finance and administrative services IT Workstation support service are: conducting workstation security evaluations, audits, and reviews; performing workstation diagnostics and troubleshooting; installing, configuring, testing, and implementing supplied software; and ordering, configuring, installing and maintaining workstation hardware. The FTEs and cost data for this service is provided below in Exhibit 11-4.

Exhibit 11-4: Workstation Support FTEs and Costs

WORKSTATION SUPPORT														
	EASC		CASC		MASC		WASC		WASH DC		HQ		TOTALS	
	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*
Govt FTEs	0.9	1.4	0.6	2.6	0.5	1.9	1.8	1.4	1.8	2.7	0	0	5.5	10.1
Govt Cost (000)	$52.1	$74.6	$54.7	$131.9	$37.8	$112.1	$157.2	$100.8	$173.6	$224.3	$23	$0	$475.5	$643.7
Contractor FTEs	0	0	0	0	0	0	0.01	0	1.5	7.0	0	0	1.5	7.0
Contractor Cost (000)	$.133	$0	$0	$0	$0	$0	$1.2	$0	$191.4	$875.0	$0	$0	$192.8	$87.0

Notes: Dollars are in thousands ($000s)
Costs are unburdened labor
**FY 2003 is adjusted data*

The data provided above indicates the number of FTEs and cost of IT Workstation Support across each location. While the workstation environment varies it appears that the FTEs within the service of Workstation Support fall within a consistent range. Within the ASCs there is not a current use of IT contractors to support this service, however at Wash DC there is the judicious use of contractors.

To support performance comparisons for Workstation Support amongst ASCs, the following measures were identified through the ABC study: the number of FTEs; dollars; number of workstation supported; and number of help desk calls. According to data collected in the field, portions of this information are important to monitoring the performance of the organization. Specifically, the number and frequency of help desk calls is a vital statistic when evaluating the performance of the help desk and ultimately Workstation Support. However, not all organizations have the time, systems, and resources to collect and analyze this data. As in the case of Infrastructure Support, additional measures are needed, both to assist IT managers in monitoring the performance of their organization and for comparing ASCs internally and to industry best practices. For example, CASC has allocated a portion of their resources to develop and implement a ticket-tracking database for help desk support, which, in turn, CASC uses to improve the quality of their services. Within Wash DC, a COTS package (i.e., HEAT) is used to track all help desk calls. On the other hand, not all the locations quantify and formally track help desk metrics and volume data. Performance data for Workstation Support for each ASC is provided in Exhibit 11-5.

Exhibit 11-5: Workstation Support Performance Data

WORKSTATION SUPPORT							
Unit of Measure	EASC	CASC	MASC	WASC	WASH DC	HQ	TOTALS
FTEs	1.4	2.6	1.9	1.4	2.7	0	10.0
Cost	$74,585	$131,858	$112,145	$100,781	$224,288	$0	$643,657
% of Total FTEs	28%	32%	28%	17%	7%	NA	11%
% of Total Cost	24%	27%	24%	17%	7%	NA	10%
# Workstations Supported	160	135	150	199	1,223	0	1,732
# Help Desk Calls (FY03)	NFT	1,458	NFT	NFT	4,819	0	1,458
Workstation Supported/FTE	113	51	76	146	452	0	172
Help Desk Calls/FTE	N/A	560	N/A	N/A	1784	0	NA
Cost/Workstation	$466	$976	$747	$506	$183	0	$371
Cost/Help Desk Call	N/A	$90	N/A	N/A	$46	0	N/A
% of Calls Resolved in 1 Business Day	N/A	91%	N/A	N/A	N/A	N/A	N/A
% of Calls Resolved in 2 Business Days	N/A	94%	N/A	N/A	N/A	N/A	N/A

The Workload Analysis details the number of workstations supported per FTE and the percentage of total FTEs within Wash DC appear to vary significantly when compared to the other locations. In addition, the number of FTEs supporting this area also includes approximately seven contractors. The use of contractors reduces the number of workstations supported per FTE. This variance does not indicate differences in performance or efficiency. Rather, the unique IT environments impact the requirement for FTE support per workstation. Not included in this service is the number of printers supported at each location. For example, the number of printers at CASC, which is the highest, is approximately 150. These additional support items will require additional FTEs, which is reflected in the above FTE data.

IT Consulting and Application Development Support

The service of IT Consulting and Application Development Support is comprised of those activities of the Systems Development Lifecycle (SDLC) that are followed to deliver an IT system or database to the user community. This service entails the activities of maintaining a system or database. The primary activities of this service area are: IT consulting; requirements documentation and analysis; systems analysis and design; and systems development and testing. The FTEs and cost data for this service is provided below in Exhibit 11-6.

Exhibit 11-6: IT Consulting & Application Development Support FTEs and Costs

IT CONSULTING AND APPLICATION DEVELOPMENT SUPPORT														
	EASC		CASC		MASC		WASC		WASH DC		HQ		TOTALS	
	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*
Govt FTEs	0.6	0.9	0.4	0.9	1.9	1.3	1.2	1.1	7.8	17.5	0	0	12.1	21.6
Govt Cost (000)	$39.5	$42.2	$23.3	$40.9	$146.3	$82.0	$104.2	$77.1	$731.0	$1,386.6	$.221	$0	$1,044.5	$1,628.9
Contractor FTEs	0	0	0.02	0	0	0	.03	0	9.59	5.00	0	0	9.64	5.00
Contractor Cost (000)	$.553	$0	$2.1	$0	$0	$0	$3.8	$0	$1,198.8	$625.0	$0	$0	$1,205.2	$625.0

Notes: Dollars are in thousands ($000s)
Costs are unburdened labor
**FY 2003 is adjusted data*

The data provided above indicates the number of FTEs and cost of IT Consulting and Application Development Support across each location. There is minimal FTE support for this service across the ASCs, however there is a significant presence at Wash DC. At Wash DC, there is significant development of enterprise-wide applications.

IT metrics have been established in the ABC study. However, these metrics are not formally tracked, nor has the organization developed other metrics that allow managers to monitor the overall performance of their organization. There are data for IT Consulting and Application Development Support: number of FTEs, hours, gigabytes, and percentage of time. These units of measures were selected because they were identified in the ABC Data Element report as being tracked. In addition, there are no other metrics tracked by the Systems Divisions regarding IT Consulting and Application Development Support. Performance data for each service for each ASC is provided in Exhibit 11-7.

Exhibit 11-7: Performance Data for IT Consulting and Application Development

IT CONSULTING AND APPLICATION DEVELOPMENT SUPPORT							
Unit of Measure	**EASC**	**CASC**	**MASC**	**WASC**	**WASH DC**	**HQ**	**TOTALS**
FTEs	0.9	0.9	1.3	1.1	17.5	0	21.6
Costs	$42,234	$40,964	$82,007	$77,068	$1,386,627	$0	$1,628,900
% of Total FTEs	18%	10%	18%	13%	48%	0%	16%
% of Total Cost	13%	8%	17%	13%	47%	0%	26%
# of Labor Hours	NFT	NFT	NFT	NFT	NFT	NFT	NFT
Application Storage Space (GB)	NFT	NFT	NFT	NFT	NFT	NFT	NFT
Web Hosting Storage Space (GB)	NFT	NFT	NFT	NFT	NFT	NFT	NFT
App. Storage Space/FTE	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Web Hosting Storage Space/FTE	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent of agreed on-time delivery within 10% of the allotted workdays	NFT	NFT	NFT	NFT	NFT	NFT	NFT

The 2003 performance analysis indicates that the majority of FTE allocations within each ASC are dedicated to developing and maintaining local applications and databases. This is in sharp contrast to the FTEs and contractors dedicated to application development and maintenance of internal finance and administrative services and NOAA systems. For example, the historical Financial Management System (FIMA) and NOAA Payment System (NPS) systems are maintained for the Finance Office, while the NOAA Locator serves all of NOAA. No organizations have a formal method or metric for tracking performance in this service area.

MASC Library (MASC Only)

The service of the MASC Library is to provide the full range of library services including circulation, reference, literature searching, interlibrary loan, and training to both NOAA and non-NOAA customers located in Boulder, CO. The metrics are formally tracked by the IRD and include: dollars amount spent per client; number of volumes; number of clients; number of electronic periodicals; number of journal

subscriptions; and days. The FTEs and cost data for this service is provided below in Exhibit 11-8.

Exhibit 11-8: MASC Library FTEs and Costs

MASC LIBRARY (MASC ONLY)		
	FY 2002	FY 2003*
Govt FTEs	9.4	9.6
Govt Cost (000)	$490.7	$415.6
Contractor FTEs	.23	0
Contractor Cost (000)	$28.6	$0

Notes: Dollars in thousands ($000s)
Costs are unburdened labor
**FY 2003 is adjusted data*

The data provided above indicates the number of FTEs and cost of the MASC Library. To operate and maintain the operational activities of the library requires 9.6FTEs, plus additional FTEs responsible for management or policy creation at the MASC Library. The performance data for the MASC Library is detailed below in Exhibit 11-9.

Exhibit 11-9: MASC Library Performance Data

MASC LIBRARY (MASC ONLY)	
Unit of Measure	MASC
FTEs	9.63
Cost	$415,584
% of Total FTEs	100%
% of Total Cost	100%
# clients	1,252
# of volumes	90,551
# of journal subscriptions	587
# of electronic subscriptions	33
$ amount spent per client	$532
Clients/FTE	130
Average Inter- Library Loan (ILL) borrowing turnaround time for books	4-9
Average ILL borrowing turnaround time for photocopies	2-5
Average ILL borrowing turnaround time for electronic	1-2
% of uptime for library system	NFT

Based upon customer interviews and the MASC Library's internal benchmarking and performance evaluation, it appears the Library personnel are able to manage its functions and ensure the facility is meeting the needs of the end users.

General and Administrative/Other

The General and Administrative/Other services have been combined into one service area to determine any additional services that are being performed at the ASCs, Wash DC, and Headquarters. As this service is a combination of typical management activities, smaller cost activities and represents other activities that are not classified within the ABC study no clear performance measures were available.

11.2.1.3 External Benchmarking

In a joint study released by people_ (a Gartner company), Mercer Human Resource Consulting and the Information Technology Association of America (ITAA), IT staffing levels vary significantly by industry and the size of an organization. For example, the typical customer to IT FTE staffing ratio is 27:1. This ratio is based on an analysis of organizations that participated in the survey. It is interesting to note that organizations with fewer than 500 internal customers typically have an IT staffing ratio of 18:1. In contrast, organizations with 10,000 or more internal customers have a ratio of 40:1. Furthermore, government, education and nonprofit organizations have the most internal customers supported by each IT FTE with an approximate ratio of 35:1. For purposes of this analysis the benchmark of 18:1 shall be used as this ratio is the best fit for the IT function within NOAA's finance and administrative services. Specifically, the customer ratios for the Federal government are based upon entire organizations, whereas the customer base for the IT function is closer to 500 staff.

Exhibit 11-10 detailed the overall IT Services staffing ratios for the ASCs. For this comparison Wash DC and Headquarters have been excluded due to the heavier allocation of software development and policy formulation that occurs at these locations and therefore, including these ratios would depict a misleading ratio.

Exhibit 11-10: Overall IT Staffing Ratio Comparison for the ASCs

Information Technology	EASC	CASC	MASC	WASC	Benchmark Ratio
Government FTE	5	8	7*	8	-
Contractor FTE	0	0	0	0	-
Total IT FTEs	5	8	7	8	-
Approximate Staffing Ratio (Internal Customer / FTE)	**14:1**	**14:1**	**16:1**	**20:1**	**18:1**

Note: Due to the unique nature of the MASC library 11 FTEs have been subtracted from the MASC total.

The comparison of staffing ratios for the ASCs contain staffing ratios that are consistent and in alignment with the benchmark ratio for 18 customers per IT FTE for IT organizations with fewer than 500 customers.

The people_, Mercer Human Resource Consulting and ITAA survey indicates that there is variation by industry regarding the use of IT contractors as part of overall IT FTE staffing. Professional services firms make the lightest use of contractors with a median contractor ratio of 4.5 percent of total IT staff. Government, education and nonprofit organizations make the heaviest use of IT contractors, with median ratios of 9 percent of total IT staff. Exhibit 11-11 provides the overall IT Services staffing percentage comparison.

Exhibit 11-11: Overall IT Staffing Percentage Comparison

Information Technology	FTEs	% of IT Staff	% of Staff Benchmark
Government FTE	86	67%	91%
Contractor FTE	44	33%	9%
Total FTE	130	100%	100%

Based upon this analysis, the finance and administration services reliance on external IT contractors is significantly higher than the industry average. A rational explanation is that this difference is a function of the unique resource constraints of the finance and administrative service. It is also important to note that there does not appear to be a negative customer service quality impact due to the higher use of contractors. While there is a gap between the industry benchmark and the internal staffing level, it does not indicate a performance or organizational challenge.

For insights into Workstation Staffing ratios, a commercial survey provides some insights into existing benchmarks for help desk customer to IT FTE staffing ratios. Based upon this survey, the most prevalent staffing ratio is approximately 125 customers to one IT FTE (40% of the respondents) with the least prevailing staffing ratio of 50 customers or less to one IT FTE (20% of the respondents). Exhibit 11-12 details the IT Workstation staffing ratios by ASC.

Exhibit 11-12: IT Workstation Support Staffing Ratios by ASC

	WORKSTATION SUPPORT		
	Total FTE	Internal Customers	**Customers/FTE**
EASC	1.40	72	**51**
CASC	2.60	113	**44**
MASC	1.97	111	**56**
WASC	1.36	160	**118**
WASH DC and HQ	9.70	490	**51**

Based upon this analysis, the IT function within the finance and administrative services has staffing ratios that appear lower than the 125 customers to a single IT FTE. The ratios for Workstation Support are approximately the same within the organization, with the exception of WASC. Specifically at WASC, a single IT FTE supports 118 customers that is in alignment with the majority of respondents to the survey. It is important to note that there does not appear to be a negative customer service quality impact of the higher or lower staffing ratios. These differences in ratios are a function of staff training, IT environment, and IT support tools.

11.2.2 Customer Service Satisfaction Analysis

The primary customers for the IT function are the government employees within each functional area and the respective division chiefs. In order to capture customer feedback, targeted surveys were sent to the internal IT customers in addition to the standard survey tool distributed to external finance and administrative customers. The rating scale for Customer Satisfaction is based on a 1-5 Likert scale[24]. The customer satisfaction results, reported by average rating scores, reflect the data collected from both surveys and are documented as "internal" customers in Exhibit 11-13.

Exhibit 11-13: Comparison of IT Customer Satisfaction Survey Results

Information Technology	EASC	CASC	MASC	WASC	WASH DC	TOTAL
Internal Customers	4.0	4.4	3.4	4.0	3.9	4.0

IT customers are very satisfied with the services as they are provided by finance and administrative service. It is important to note that some respondents may have been responding to IT issues and concerns contained within various functional areas. For example, if users are having difficulty with an HR system, it may impact the IT functional area satisfaction ratings. This would be a reflection on IT staff contained within a non-IT function.

Customer interviews indicated that IT customers believe that the function adequately supports their current needs and that services are provided in a timely manner. Additionally, the customer satisfaction survey results support this finding. While IT customers' perceptions of cycle time is positive, there are opportunities to improve the performance of this function through consolidation, redistribution of responsibilities, and standardization.

The IT function, and all of its services provided to its IT customers, supports the conclusion that this function is providing the appropriate service mix. However, the IT function should consider instituting more effective approaches to improving their policies, processes and procedures that will contribute to optimizing service delivery to its IT customers. This is reflected in the ABC data analysis as well our understanding of industry standards.

While customers are satisfied with responses to their support requests, the organization is lagging in its approach to implement innovative customer relationship management (CRM) processes and tools. Equally, the organization has not taken steps to implement a formal application development methodology. Without such a methodology to guide it, the applications development approach lacks standardization, consistency, and

[24] Rating Scale for Customer Satisfaction Survey:
1. Services **seldom** meets your needs in a timely manner and are free from errors
2. Services **sometimes** meet your needs in a timely manner and are free from errors
3. Services **often** meet your needs in a timely manner and are free from errors
4. Services **usually** meet your needs in a timely manner and are free from errors
5. Services **always** meet your needs in a timely manner and are free from errors

effective quality controls. To maximize repeatability of code to deliver applications on time and within budget, the organization requires a rigorous application development process to track and manage all application development activities. The area of IT security also provides opportunities for improvement. Best practice organizations have clear and defined authorities and responsibilities in IT security operations. They also have a dedicated security focused team, incident response teams, and a standard process for identifying, reporting, and responding to security incidents.

Overall, our interviews and site visits indicated that the effects of limited financial resources have significantly impacted the IT function within the finance and administration services. This impacts current operations, and further the lack of IT investments may acutely impact IT operations in the future. For example, the lack of a technology refresh program has an impact on current operations and will eventually result in a significant IT investment required to meet the IT needs of the customer base.

11.2.3 Management Process Analysis

Planning and Budgeting
The IT function within the finance and administrative services is focused on ensuring that an IT Operational Plan is in place and followed. In recent years, the function has not been able to follow the plan due to resource limitations. In November 2003, the FY 04 IT Operational Plan was completed and the organization is following this plan. The overall IT budget process was not examined as part of this effort, however required IT expenditures are found in the recommendation and transaction sections of this report.

Workload Forecasting
The IT function at both the Headquarters and the ASCs are able to adequately forecast changes in IT requirements and the changing needs of the user community. The IT function has been able to proactively determine end user requirements because there are very specific communication channels for management to support informed decision-making. This is especially effective at the Headquarters, Wash DC and WASC locations. For example, at WASC, the IT Systems Division is an active and equal part of the ASC strategic planning process. This has improved the overall quality of IT services within the center and the greater IT function.

Policy Development and Documentation
The IT function HQ staff have responsibility for developing internal finance and administration services IT policy that is compliant with NOAA and Commerce IT Policy. The organization has developed various guidance publications to include the areas of: IT security, enterprise architecture, software procurement, and application development and support. Exhibit 11-14 depicts a consistent mix of operation time versus policy/oversight time across all the ASCs, Wash DC, and Headquarters. At Headquarters, this aspect of the organization focuses on developing and disseminating policies and procedures down from the CIO office.

Exhibit 11-14: As-Is Operations vs. Policy/Oversight Time

	EASC	CASC	MASC	WASC	WASH DC	HQ	TOTAL FTEs	TOTAL PERCENTAGE
INFORMATION TECHNOLOGY	5.0	8.0	18.0	8.0	70.0	21.0	**130.0**	**100.0%**
OPERATIONS	3.8	5.4	14.4	5.6	61.4	10.0	**100.6**	**77.4%**
POLICY / OVERSIGHT	1.2	2.6	3.6	2.4	8.6	11.0	**29.4**	**22.6%**

Note: FY 2003 total FTEs associated with operations and policy/oversight

Each Systems Division Chief is responsible for performing traditional management activities to ensure the successful completion of tasks and projects. This is reflected in the Policy/Oversight in each ASC.

In the To-Be Policy versus Operations Time Allocation, the Western Operations center will require a small allocation to policy as any policy that is developed by the IT function will require research and analysis at the local level. The Eastern Operations center will be responsible for formulating policy and providing oversight as required within the Headquarters aspect. The recommendations will further enhance the policy services within the IT function. In addition to implementing the recommendations, the IT function should work with the NOAA CIO and the NOAA CIO council to establish or clarify responsibility for Policy development and various IT roles within NOAA.

Process Design and Technology Utilization

The IT function lacks clearly defined and documented IT processes, however for all its services, technology is utilized. The extent to which technology is utilized is significantly impacted by resource constraints. When appropriate, the IT recommendations include recommendations on how technology could best be leveraged within a service area.

Staff Training and Organizational Development

Within the current IT function, there has been a shortage of resources for training and technical certifications for staff. This constrained technology-training budget has impacted the organization's ability to understand what technologies are available to take advantage of the new business models, and how to use those technologies effectively. Further, this lack of training has impacted the ability to meet needs of customers in a more efficient manner.

The IT managers within the IT function have had a focus on development of skills through internal cross training and responsibility setting. However, the training resource shortage within IT must be addressed prior to the IT recommendations being implemented to ensure their successful implementation.

Performance Measurement, Reporting, and Accountability

Deliverable Two: Benchmarking Analysis issued on December 15, 2003 details the pertinent best practice metrics. These metrics provide organizations with the opportunity to effectively and efficiently monitor and manage the performance of their organization. While a portion of these metrics may match previous IT function performance metrics as defined during the ABC effort and in the May 2003, NOAA

Office of Finance and Administration Service Level Agreement, they may not be formally tracked or implemented. The list provides a validation of previous metrics and reemphasizes the need for a consistent IT performance measurement approach. Further, the IT organization within the finance and administrative services function has implemented various performance improvement efforts to monitor and improve performance of activities.

The IT function tracks various metrics as illustrated in the service discussion sections. However, the method for this collection has not been discussed. Within the IT function, these performance measures are tracked at each ASC and monitored on a local level. Few of the metrics are aggregated for analysis at the HQ level. A best practice that should be implemented is that each performance measure once defined and collected be subsequently analyzed at the local and HQ level. This will allow for the sharing of best practices for efficiencies across the organization and will not keep these practices only at the local level.

Exhibit 11-15 depicts the performance measures and provider services for the IT function derived directly from the draft "NOAA Office of Finance and Administration Service Level Agreement" dated May 2003. These metrics are not formally and consistently tracked across all locations by the IT function. In addition, for all locations there is not a central report wherein an analysis of any compiled data is presented.

Exhibit 11-15: Service Level Objectives

Provider Services	Provider Performance Measures
IT-S0100 Infrastructure Support	95 % of time network is available (24/7)
IT-S0200 Workstation Support	90 % of tickets solved within 1 Business Day
IT-S0300 IT Consulting and Application Development Support	80% of work completed delivered within with in 10% of the agreed upon time
IT-S0400 High-volume Printing	95% of jobs completed in agreed upon time
IT-S0500 FTS Administration	95% of orders placed within 3 business days
IT-S0600 MASC Library	95% Uptime (24/7)

Performance Analysis and Improvement

The IT function has informal methods for internally examining their business processes and customer satisfaction. While this process is not formally codified, the IT function is able to accurately assess how they are meeting the needs of the user community. For example, the senior leadership of each system division queries their local customer base to ensure the IT function is meeting the needs of the local user community. Senior leadership has a similar role in the Wash DC and Headquarters region where senior functional managers are routinely asked to provide an estimate on the performance of the IT services received.

When a formal series of metrics are defined, and a formal process is established, the organization will be better able to measure the performance of each specific IT service. Without such measures it is difficult to complete a formal analysis of IT processes and

services. To address this, a standard customer survey could be developed and administered to all finance and administration customers.

11.3 RECOMMENDATIONS AND IMPLICATIONS

This section describes each of the proposed recommendations in detail. The description includes an overview of the rationale for the proposed recommendation, benefits and impacts of the recommendation, key steps associated with implementing the recommendation.

11.3.1 Recommendations

RECOMMENDATION IT.1: Consolidate IT consulting and application development support located at HQ, reporting to the Director of Information Technology

Currently, all application development is performed on an as-needed basis within the ASCs or at Wash DC (e.g., each center has responsibility for developing and maintaining center websites). The largest number of government and contractor FTE developers is found in Wash DC where there are approximately 15 government and 10 contractor FTEs. Additionally, there are approximately six FTEs located at the other ASCs. Based upon interviews and data gathered during the completion of the Workload Analysis report, the application development activity does not follow a formal and defined SDLC. This has resulted in locally developed applications and websites having a different depth of content, quality and usability. Moreover, the creation and maintenance of these applications and websites may be a duty assigned to local functional areas (e.g. staff responsible for implementing a CAMS-CSTARS interface). For example, the report prepared for W. Scott Gould in July 1998 indicates that there has been slow application development that supports business process systems.

To improve the quality of application development support and to follow industry and government best practices, we propose that NOAA should consolidate application development and maintenance activities and processes. This consolidation should provide for greater integration of application development activities. Once this service is consolidated, a formal SDLC (e.g., CMM best practices) should be implemented as well as a standard development environment and state-of-the-art techniques (e.g., the Rational Unified Process) should be implemented.

The consolidated approach to providing application development support should identify a process for justifying and costing any new application development efforts. Each new software development effort should follow a predefined IT business case process to include an analysis of pertinent full life cycle costs. This business case process should include an examination into the need for the application (i.e., the business drivers) as defined by the functional owner of the application and a traditional cost benefit analysis of the effort. Development templates, reusable programming

objects and models, and standardized processes that are defined in the software development methodology will assist in estimating the cost of developing new applications.

The implementation of this recommendation will require the selection of a standard development methodology, training and certification of staff in this methodology and the procurement and implementation of Commercial Off the Shelf (COTS) software development packages. This recommendation will require the following specific actions:

- Consolidation of the responsibility for software development and IT consulting;
- A formal BPR of existing development and IT consulting practices;
- Evaluation and selection of an SDLC;
- Evaluation and procurement of required COTS tools;
- Implementation of the defined practices, tools and methodologies; and
- Development of a formal IT business case process

The adoption of a formal SDLC and business case analysis process will increase the accuracy and utility of application development efforts and reduce the costs associated with reworking or retooling applications. By centralizing application development authority, staff and financial resources, the use and development of additional cuff systems will be reduced and interfaces between future enterprise applications will be supported. Furthermore, the business case analysis will help to ensure that each application has followed a defined process to determine the need and impact of the specific system

RECOMMENDATION IT.2: Consolidate Finance and Administrative Service Enterprise Architecture Support, Policy and Planning to the Finance and Administrative Service Director of Information Technology and update enterprise technology

Some elements of the current IT environment are standardized across geographic regions. In contrast, IT environment decisions (e.g. hardware procurements, IT security procedures, software and operating system support, and IT migration strategies) have historically been made at the local level. This has resulted in the establishment of distinct ASC-centric Common Operating Environments (COE). The organization should continue current activities in centralizing the IT hardware and software procurement process with added emphasis on interoperability and standardization across the enterprise. To support this standardization effort, specific EA components should be developed and implemented. For example the organization should develop a Technical Reference Model (TRM) to detail specific technology recommendations (e.g. approved development tools) and a Performance Reference Model (PRM) to detail specific performance measures and operating standards to assist in the management of

the organization. The organization has developed a draft of an official Infrastructure Target Architecture for the financial and administrative services applications. This draft Target Architecture is intended to provide architecture guidance for new or modified applications. Specifically, this guidance will help to ensure integrated and fully supportable applications through defined application development environments, application platforms, database standards and user access protocols.

In 2002, the IT function within the finance and administration service conducted an IT infrastructure assessment. During this assessment, a catalog of all finance and administrative systems was developed. This catalog served as a basis for FY 03 recommendations on improving and standardizing the IT architecture of the organization. Due to funding constraints, limited progress has been made in this effort. Current internal IT function estimates require approximately $1.3M to upgrade and standardize the infrastructure and workstation architecture.

This recommendation will require the formal adoption of the draft Target Architecture and a formal assessment of the current IT infrastructure. These should be conducted and developed in accordance with higher-level Department of Commerce and NOAA CIO guidance.

This recommendation will require the following specific actions:

- Consolidation of IT responsibilities;
- Identification of any internal best practices;
- Reengineering the hardware and software procurement process;
- Centralization of the IT budget; and
- Prioritization of budget requests.

Upon implementation of these recommendations, greater uniformity and interoperability within the IT environment will be attainable. Further, additional process and quality efficiencies may also be realized as a result of the implementation.

RECOMMENDATION IT.3: Transfer the support for FTS/Telecom to HQ, reporting to the Director of Information Technology

In 1996, NOAA's finance and administrative services eliminated all Designated Agency Representative (DAR) positions within the ASCs and transferred ownership of this role to regional line offices. The DAR was responsible for FTS Telecommunication implementation. It is unclear the extent to which other line offices currently provide and support this activity. Within the current IT operating model, FTS Administration is currently a reimbursable service provided to at least one line office and internally to the finance and administrative service. This activity is conducted at the WASC within the Systems Division by approximately one FTE.

This function, to include policy formulation and execution, should be transferred to the finance and administrative service Director of Information Technology. This service is fully reimbursable and does include non-NOAA clients. Within NOAA and the Department of Commerce there are additional staff with this responsibility and the relationship between this NOAA FTE and any Commerce FTEs should be examined.

RECOMMENDATION IT.4: Transfer ownership of the MASC Library to the Library and Information Services Division within the National Oceanographic Data Center (NODC)[25]

The MASC Library is the only library currently maintained within the finance and administrative services area. While this service is contained within the IT function, a more efficient functional alignment may be realized outside of the confines of the finance and administrative services. The Library's customers are equally distributed between NOAA and non-NOAA customers. Approximately 1.6% of the customer base is comprised of internal customers within the finance and administrative services[26]. The MASC Library is staffed by approximately 10 FTEs. As indicated in the Benchmarking Study, the MASC Library has conducted an extensive external benchmarking and costing study. In 1999, the library was deemed to be excluded from further A-76 consideration.

Historically, this Library has supported the research and development aspect of NOAA's mission. As a result, the continued maintenance and operation of this Library is critical to its customers fulfilling their mission. However, ownership of the Library should be re-examined to consider a transfer to the NOAA Library and Information Services Division. This will allow more efficient integration with other Department of Commerce and Federal libraries or other resources. This recommendation is in concurrence with the current NOAA practice of maintaining a local library branch or satellite office for research staff. NOAA maintains multiple libraries across the US with Regional Libraries located in Miami, FL and Seattle, WA. The field libraries, or information centers, are located at approximately 30 NOAA sites throughout the United States. The integration of these libraries will result in economies of scale and greater depth of information for researchers in the field and Headquarters locations. In addition, current Library IT systems and COTS or Government Off the Shelf (GOTS) products could be integrated across NOAA.

RECOMMENDATION IT.5: Standardize and consolidate the Help Desk activity and administer a centralized Call Center (Help Desk)

Each ASC and the Wash DC location maintain a distinct help desk with unique processes and support tools. A help desk can provide a variety of services. Each help desk run by the IT function varies to some extent in the set of services it provides to its customers. There are approximately 10 FTEs that are responsible for workstation

[25] There is no clear reporting relationship between of the approximately 30 line office and field libraries, 2 regional libraries, and the main library offices in the Washington DC region.

[26] A significant percentage of customers are external to NOAA.

support activities. Each ASC has a distinct number of FTEs responsible for providing workstation support. The percentage of time and quality of this service varies by location. A direct comparison between the staff-to-supported client ratios is not a valid comparison due to hardware, software and infrastructure differences (i.e. EA differences.

A centralized help desk function, with consistent and clearly defined performance metrics, software, and processes, will improve the quality of workstation support to the user community. Further, this recommendation, an observed industry best practice, will improve the quality and consistency of this service. We propose that a centralized help desk be located within the Wash DC area for general (Tier 1) and enterprise application (Tier 1/3) be implemented. Tier 2 help desk activities, those activities requiring an on-site presence, should be maintained at the Eastern and Western Operations locations. To support the help desk, an IT help desk software solution and standard help desk policies and procedures should be developed and implemented. These activities will support formal tracking of help desk issues and improved system and application diagnostics. To develop these procedures, the "help desk processes" should be examined through a formal BPR effort. Specifically, the processes for responding to customer requests, documenting issues and their resolution and the way that help issues are triaged should be examined and streamlines when appropriate.

Another benefit of this recommendation is a renewed focus on knowledge management. This approach would provide an opportunity to document common issue resolutions and lessons-learned in a central repository to support more efficient knowledge sharing among help desk staff. Finally, training initiatives for help desk technicians and the identification of subject matter experts should be facilitated by the use of a consolidated model for providing help desk support.

RECOMMENDATION IT.6: Implement a formal Help Desk application and develop a defined customer relationship model (CRM)

The workstation support function includes troubleshooting and user support requirements of a help desk. Approximately 10 FTEs are responsible for workstation support activities. Implementing a central Help Desk software package and defining a CRM process will provide a common channel and process for responding to and resolving help requests from customers. This will provide the opportunity to track performance and will support standardization in the way customers interact and receive assistance. Currently, the communications channels for help desk support vary by location. For example, Wash DC has a formal help desk tracking system, called HEAT, and communication channel, whereas, MASC has a very informal method of receiving and tracking help requests (i.e., via e-mails).

By developing a single CRM process, each center will have access to a defined protocol for addressing and resolving all help desk calls. The CRM process should be combined with a formal help desk support application. This will provide a standard, defendable and consistent way of accessing the help desk and tracking progress. This will also

foster consistent management performance reports, and allows for faster response to security threats and vulnerabilities by allowing for trend analysis. A formal BPR effort of existing CRM processes will allow for the development of a single refined process. While the existing processes may not be the ideal process, they will provide a baseline for the new processes and procedures.

RECOMMENDATION IT.7: Supplement operational IT Infrastructure support with federal contractors

Each ASC is currently responsible for implementing a process for maintaining and developing its own IT infrastructure and corresponding policy. As streamlined policies and standards are developed, it will be essential to ensure that implementation is consistent. To support this approach, we recommend augmenting IT infrastructure operational support with external contractors.

In the current operating structure, the ASCs are using a variety of approaches to address their infrastructure support needs. Wash DC outsources elements of its infrastructure responsibility to an external federal contractor, whereas MASC outsources internally to OAR. In the current Wash DC model, government FTEs and federal contractors share infrastructure responsibilities (e.g. server upgrades and maintenance, system administrator duties). The new operating model should follow the structure established at Wash DC, where existing government staff is supplemented and supported by a federal contractor workforce.

The contract cost of supplementing a portion of IT Infrastructure support by contractors should be evaluated against the cost of exclusive government staffing. The lack of sufficient funds for IT training and certifications of government staff is a driving factor when evaluating the need for external IT contracting staff.

Using external contractors will provide a degree of flexibility to the finance and administrative services staff by allowing the government to request staff with specific skill sets, certifications and experience in an efficient and cost effective manner. Through the use of a contractor the government will shift cost responsibility for staff training and certifications to the contractor. The use of a single contractor to supplement current IT staff will standardize the quality of service and the skill level of personnel at the Eastern and Western Operations locations. This approach is consistent with industry and government best practices.

RECOMMENDATION IT.8: Consolidate IT Security and Disaster Recovery Planning

Currently, each ASC is responsible for developing its own Disaster Recovery and Contingency Plans and conducting IT security assessments. There are several different approaches to ensuring the viability of systems through Disaster Recovery and Contingency Plan development. We propose that a defined, formal security group should be created under the Director of Information Technology in the finance and

administrative services. This group would be responsible for IT security planning and programs within the new operating model at the Eastern and Western Operations locations. This organization will have responsibility for ensuring that the finance and administrative service is in compliance with NOAA IT security policy. IT staff at the local level will be required to provide input and conduct operations to implement the guidance. In addition, this organization will be responsible for providing NOAA IT security policy guidance to the other functional areas within the finance and administrative function. As other functional areas implement digital signatures, the IT organization will have responsibility for the consistent implementation of pertinent NOAA IT policy on digital signatures.

Implementation of this recommendation will ensure that the organization is prepared to respond to and resolve security threats and vulnerabilities. Specifically, the organization will provide a centralized organization within the new operating model for researching and addressing IT vulnerabilities and devising techniques for the cost-effective security of systems. This organization will also establish a uniform and consistent framework for identifying and assessing risks, evaluating policies and controls, responding to Government Information Security Reform Act (GISRA) requests and addressing any identified security issues.

This recommendation addresses the challenge of strengthening Department-wide information security which was identified in both the March 2003 Inspector General Semiannual Report to Congress and guidance from the National Institute of Science and Technology (NIST).

RECOMMENDATION IT.9: Conduct a formal assessment on the performance and user requirements for the finance and administration Information Technology Center.

The IT function within the finance and administrative service operates NOAA's financial and administrative Information Technology Center. This data center provides support for over 30 financial and administrative Enterprise Applications including support for NOAA's implementation of CAMS and the Time and Attendance application. In addition, this data center provides services to the finance and administrative customers and users throughout NOAA through the maintenance and development of NOAA Net WAN, NOAA E-Mail services, servers and networking hardware, and associated enterprise storage devices. The data center also provides data base management software capabilities and IT consulting on an as needed basis.

This facility is maintained and operated by a mix of government and contractor FTEs. Various performance measures exist that detail the efficiency of the data center and the performance of the contractor currently supporting the data center, however, due to the timing of this study a detailed analysis of these metrics has not been conducted.

We propose that a formal assessment of the performance, hardware and software infrastructure and FTE requirements and capabilities be conducted. As part of this

study, a detailed examination into: the current technical IT environment; current and anticipated program activities; implemented security protocols; and the specific end-user requirements for the center.

Once this study is conducted an accurate understanding of the center's technology and staffing requirements will be achieved. This information will enhance the performance of the center and the Enterprise Applications that are supported as the IT environment continues to evolve.

11.3.2 Target Organization

We recommend the implementation of a To-Be model that centralizes some activities while maintaining the benefits of local staff empowerment. The new IT operating model will require a full complement of IT staff located at two centers – Eastern Operations and Western Operations. Eastern Operations would provide Infrastructure Support, Workstation Support, High Volume Printing, and General Administration duties while Western Operations will provide Infrastructure Support, Workstation Support and General Administration duties. Staff at the current ASCs possess the requisite knowledge and expertise required and could be utilized to support the either of the proposed centers. In addition, there is a need to maintain a limited IT role at Boulder, CO to support the staff that will remain there. Current estimates indicate that two government FTEs will be required at Boulder. These two FTEs will report to the WASC and are reflected in the FTE estimates.[27]

Within this new operating model, we propose that responsibility for the MASC Library Administration be transferred out of the NOAA's finance and administrative services. We propose that within each of the East and West operational support groups the IT function be organized to provide support for infrastructure activities, workstation support, and general IT management. Each operations center should have a Systems Division Chief who will report directly to the Finance and Administrative Services Director of IT. The Director at Headquarters will provide high-level policy development and implementation guidance in the areas of IT, IT security and EA as well as General Administration duties. In addition, the Director should maintain responsibility for application development to include remaining the lead on specific IT development activities (e.g., Grants Online).

11.3.3 As-Is and To-Be Comparisons of Staff and Cost

The current staffing model (as depicted in Exhibit 11-16) is based on a structure designed to support both external and internal customers with the majority of customers being internal. Specifically, the internal customers are those staff internal to the finance and administration service functional areas. The IT service is an enabling service for the other functional areas. The current total for the IT function is approximately 86 government FTEs; the proposed restructuring and adjustment will

[27] This is estimated to be a requirement of two FTEs based upon the current staff projections of the geographic area.

result in 59 government FTEs after three years. This adjustment over three years is driven by the reduced staffing for the overall model, an adjustment that will result in fewer customers for the IT function.

Exhibit 11-16: Total IT Annual Operating Costs for As-Is

Info Technology *As-Is*	EASC		CASC		MASC		WASC		Wash DC		Headquarters		Total	
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost
Government Labor	5.0	$ 457	8.0	$ 732	18.0	$ 1,646	8.0	$ 732	36.0	$ 3,292	11.0	$ 1,006	86.0	$ 7,864
Contractor Labor	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	34.0	$ 4,250	10.0	$ 1,250	44.0	$ 5,500
Variable Overhead		$ 16		$ 46		$ 382		$ 26		$ 110		$ 34		$ 613
Fixed Overhead		$ -		$ 6		$ -		$ -		$ -		$ 11,963		$ 11,969
Total	5.0	$ 473	8.0	$ 784	18.0	$ 2,028	8.0	$ 757	70.0	$ 7,652	21.0	$ 14,252	130.0	$ 25,946

Notes: Calculations assume current workload and exclude effect of transition costs.
All dollars in thousands ($000s)
Transfers consist of 10 FTEs from MASC Library to NOAA

Significant cost savings are associated with the reorganization of FTEs within the new operating model. Exhibit 11-17 depicts these costs and the required number of government and contractor FTEs. As indicated in the Office of the Inspector General report, a subsequent examination into the specific technical architecture and support requirements of each operational support group will assist in determining whether the FTE counts are optimal or should be changed as the model evolves. The HQ component of this new operating model is a relocation of the current ISMO and includes the Director of IT. Further, the HQ will encompass the Grants Online PMO.

Exhibit 11-17: Total IT Annual Operating Costs for To-Be

Info Technology *To-Be*	Western Operations		Eastern Operations		Headquarters		Total		Percent Change	Net Cost Differential After Transfers *
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost		
Government Labor	12.0	$ 1,097	36.0	$ 3,292	11.0	$ 1,006	59.0	$ 5,395	-31%	$ 2,469
Contractor Labor	3.0	$ 375	34.0	$ 4,250	10.0	$ 1,250	47.0	$ 5,875	7%	$ (375)
Variable Overhead		$ 75		$ 110		$ 34		$ 218	-64%	$ 395
Fixed Overhead		$ -		$ -		$ 11,963		$ 11,963	0%	$ 6
Total	15.0	$ 1,547	70.0	$ 7,652	21.0	$ 14,252	106.0	$ 23,451	-10%	$ 2,495

Notes: Calculations assume current workload and exclude effect of transition costs.
Transfers consist of 10 FTEs from MASC Library to NOAA
Dollars are in thousands ($000s)
**Projected cost savings*

Since the IT function is an enabling function, the new government FTE staffing model for the Western and Eastern Operations centers are impacted heavily by the distribution of other functional area FTEs. There are fewer FTEs required than in the As-Is due to the overall reduction in the staff size of the other functional areas. To calculate the estimated FTE requirements, the best performing ASC in workstation support, infrastructure support, and other IT services were identified. The best performer was determined through an analysis of staffing ratios within each IT service and these ratios served as an approximate baseline for improvements. The best performer staffing ratios were then improved to a conservative 75% efficiency level that would be attainable through the IT function recommendations. These staffing ratios were then used to calculate the required staff for each service and subsequently for each operations center.

The contract staff required to support the data center and application development requires further analysis as outlined in the IT recommendations.

The 12 FTEs at the Western Operations centers will be responsible for Infrastructure Support and Workstation Support. The 36 FTEs at the Eastern Operations center will be responsible for Infrastructure Support, IT Consulting and Application Development, Workstation Support and other IT services not covered within the confines of this study (e.g., high-volume printing). Lastly, the HQ will be responsible for Policy coordination and creation and the delivery of systems as appropriate.

Exhibit 11-18: Summary IT Services Operating Costs

Info Technology *Summary*	Gross Cost Differential Before Transfers*	Transfers to NOAA	Net Cost Differential After Transfers*
Government Labor	$ 1,554	$ 914	$ 2,468
Contractor Labor	$ (375)	-	$ (375)
Variable Overhead	$ 212	$ 183	$ 395
Fixed Overhead	$ 6	-	$ 6
Total	$ 1,397	$ 1,097	$ 2,495

Notes: *Calculations assume current workload and exclude effect of transition costs.*
Transfers consist of 10 FTEs from MASC Library to NOAA
Dollars are in thousands ($000s)
**Projected cost saving*
**Gross cost differential before transfers: $1.3M is the actual finance and administrative services cost savings by implementing the To-Be model*
**Net cost differential after transfers: $2.4M is the total reduction in Operating Budget for finance and administrative services by implementing the To-Be Model*

A projected cost savings reduction of $2,495,000 result from changes in direct labor staffing levels and overhead costs between the current (As-Is) and future (To-Be) process-based organizational structures.

12. ENVIRONMENTAL COMPLIANCE AND HEALTH & SAFETY

12.1 OVERVIEW OF ECSH SERVICES

The Environmental Compliance, Health, Safety, and Security Office (ECHSSO) administers the NOAA-wide programs for environmental compliance, occupational health and safety, and emergency management. The Office establishes NOAA-wide guidelines and procedures to implement Federal, state, and local statutes and regulations; develops NOAA-wide policies and working procedures promoting environmental compliance, safety and emergency preparedness and management; develops program goals and objectives, training programs; evaluates the implementation of programs; and monitors compliance progress.[28]

12.1.1 Service Portfolio

The specific services that are provided under the umbrella of the Environmental Compliance, Health, Safety, and Security functional area are Environmental Compliance and Occupational Safety and Health.

The ECSSH Office, through the Regional Environmental Compliance Officers (RECOs) and in coordination with the Regional Safety Mangers (RSMs), performs routine facility assessments to determine the condition of NOAA's property and equipment and operational compliance. It manages NOAA's Disaster and Emergency Response Program. The Office develops and implements policies in support of Federal mandates, goals, and objectives related to ensuring that NOAA's employees, contractors, and visitors operate in a healthful environment and are ready to respond if conditions change.[29]

The delivery of these services occurs primarily at the ASC level with the Headquarters organization being tasked with the development and disbursement of policy and procedure. Given the nature of environmental compliance and occupational safety & health service, with the exception of certain building management activities that require on-site presence, the ASCs have been able to provide these services in a 'virtual' fashion. The environmental compliance and occupational safety & health services provided in the Washington, DC metropolitan area are also an exception to this statement, as all of the customers are local. However, most customers of the facilities and logistics business line are served remotely, with face-to-face interaction occurring only during certain key project phases or assessments.

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[28] Sourced from an Overview of the Environmental Compliance, Health, Safety, and Security Office, developed by Don Wynegar, Director – ECHSSO.

[29] Sourced from an Overview of the Environmental Compliance, Health, Safety, and Security Office, developed by Don Wynegar, Director – ECHSSO.

If you do not take into account the DC metropolitan area, 74% of the environmental compliance and occupational safety & health business line customers are served remotely. A detailed customer dispersion analysis is shown in Exhibit 12-1.

Exhibit 12-1: ASC Customer Dispersion

	ENVIRONMENTAL COMPLIANCE AND OCCUPATIONAL SAFETY & HEALTH—CUSTOMER DISPERSION					
	EASC	CASC	MASC	WASC	WASH DC	Totals
Customers Collocated w/ ASC	235 Staff (9%)	385 Staff (13%)	1,520 Staff (70%)	800 Staff (24%)	3,547 Staff (100%)	6,487 Staff (44%)
Customers NOT Collocated w/ ASC	2,309 Staff (91%)	2,577 Staff (87%)	655 Staff (30%)	2,600 Staff (76%)	0 Staff (0%)	8,141 Staff (56%)
Total Number of Customers	2,544 Staff	2,962 Staff[30]	2,175 Staff	3,400 Staff	3,547 Staff[31]	14,628 Staff

12.1.2 Customers

These selected services are delivered to the full range of environmental compliance and occupational safety and health customers, all of which are NOAA customers. The distribution of transaction volume across the two service areas and the four major customer groups is depicted in Exhibit 12-2. As indicated in this table, all the environmental compliance and occupational safety and health customers are internal to NOAA.

Exhibit 12-2: Overview of ECSH Customers[32]

		Environmental Compliance and Occupational Safety & Health Training Programs			
		NFA	Other NOAA	Other Commerce	Other Federal
Environmental Compliance (NECSAS Inspections)	# of Transactions	33		0	0
	% of Total Trans	100%		0%	0%
Environmental Compliance and Occupational Safety & Health Training Programs	# of Transactions	124		0	0
	% of Total Trans	100%		0%	0%

12.1.3 Organization

The services that are currently grouped under the umbrella of ECHSSO at NOAA are often structured within real estate, real property, or facilities organizations in the

30 Includes 484 contractor and members of academia located in customer offices and thereby directly/indirectly supported by CASC, depending on the specific service area under discussion.

31 All Washington DC Operations customers are located within the greater Washington DC metropolitan area.

32 Information for the ECHSS customer breakdown was obtained from the RECOs and RSMs within the ASCs and Headquarters

Federal Government. This is not the case at NOAA, where the ECHSSO is actually situated as a partner organization to Facilities. Both organizations are under the CAO.

The one anomaly in this arrangement involves the Regional Safety Manager positions within the Occupational Safety and Health Division of ECHSSO, which reside within the Facilities and Logistics Division in each ASC. In the past, the Regional Environmental Compliance Officers and the Regional Safety Managers both reported to the ASC Facilities and Logistics Division. The current alignment fractures an organization that was previously together.

In many organizations, the visibility and mission criticality of the services provided by environmental compliance, health, safety, and security programs have been elevated. As such, many organizations have initiated restructuring efforts to extract all aspects of these programs from their existing nodes within real estate and facilities departments and elevate their positioning within the enterprise.

12.1.4 Staffing and Costs

As a part of this workload analysis, Booz Allen attempted to ascertain a relatively accurate representation of the staffing levels and costs that are currently associated with the environmental compliance and occupational safety & health services organizations. NOAA's 2002 ABC data, which was used as a baseline starting point, provided the project team with cost and FTE data points for environmental compliance and occupational safety & health in each of the four ASCs, Wash DC, and the Headquarters organization. Exhibit 12-3 provides a snapshot of the ECHSS FTEs and Costs.

Exhibit 12-3: Overview of ECHSS Services FTEs and Costs[33]

	ENVIRONMENTAL COMPLIANCE, HEALTH, SAFETY, AND SECURITY OFFICE													
	EASC		CASC		MASC		WASC		WASH DC		HQ		TOTALS	
	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*	FY 2002	FY 2003*
Government FTEs	.38	1	1.12	2.0	.79	2.0	1.04	2.0	4.78	1.0	N/A	8.0	8.11	16
Government Cost ($000's)	$27.7	$48.2	$93.3	$77.1	$75.8	$147	$83.5	$80.4	$486	$884	N/A	N/A	$766	$1,237
Contractor FTEs	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0
Contractor Cost ($000's)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$448
Total FTE	.38	1	1.1	2.0	.79	2.0	1.04	2.0	4.78	1.0	N/A	8.0	8.09	16.0
Total Cost ($000's)	$27.7	$48.2	$93.3	$77.1	$75.8	$147	$83.5	$80.4	$486	$884	N/A	N/A	$766	$1,685

*Notes: *FY 2003 data is adjusted and does not reflect actual 2003 ABC data*
Dollars are in thousands ($000s)
16 Govt FTEs include two FTEs devoted to security and not included in the analysis

As shown in Exhibit 12-3, the total number of FTEs that are directly aligned to the environmental compliance and occupational safety & health organizations in 2003 is 16. The estimated cost associated with these FTEs is $1,685,000. Both government FTE and contractor FTE are identified, in conjunction with any associated unburdened costs. The levels of staffing across ASCs are standardized, in accordance with the anticipated scope and scale of service provided to customers. The staffing levels at Headquarters are the highest, given the additional service offerings provided by in Washington, DC.

12.2 FINDINGS AND CONCLUSIONS

12.2.1 Workload and Productivity Analysis

12.2.1.1 Services Selected for Details Analysis

An initial review of the ABC data was combined with Booz Allen's functional expertise in environmental compliance and occupational safety and health business process analysis to determine which of the processes within NOAA's program should be selected for further study. The two processes or services selected for further study represent a significant portion of the organization's environmental compliance and occupational safety and health workload within NOAA.

33 Due to the nature in which contracts are crafted for NECSAS Tier 1 assessments, it was not possible to breakdown the contract values by ASCs. Contractors will submit bids based on the overall level of work. Therefore, the total contract costs for FY03 represents the cost incurred to perform all 22 Tier 1 NECSAS inspections. Details on the allocation of labor across the Wash DC and Headquarters functions was obtained from Headquarters. It is important to note that the four (4) Environmental compliance officers located throughout the ASCs report directly to NFA Headquarters but are matrixed out of the ASCs under the respective FLD Chiefs.

The specific services that were selected for further analysis area are Environmental Compliance and Occupational Safety and Health.

These services represent 88% of FTE for the environmental compliance, health, safety and security functional area. Although these services are primarily operational in nature, there are some policy/planning/oversight activities that are embedded into them. The majority of these non-operational services are performed by the Headquarters organization in Washington, DC.

12.2.1.2 Internal Benchmarking

Comparisons of the workload/demand, capacity, efficiency, and productivity metrics for Environmental Compliance/OSH are depicted in Exhibit 12-4. The FTEs and associated unburdened costs are based on the adjusted figures presented in Section 12.1.4 of this document as well as Section 11 of Deliverable One: Workload Analysis, November 17, 2003. All transaction volumes and costs shown in the following Exhibit were assembled through a series of interviews with the respective service area staff at each ASC. Additional detail can be found in Section 11 Deliverable One: Workload Analysis, November 17, 2003.

Exhibit 12-4: Overview of Environmental Compliance/OSH Performance Data

Unit of Measure	ENVIRONMENTAL COMPLIANCE/OSH						
	EASC	CASC	MASC	WASC	WASH DC	HQ	TOTALS
FTEs	1.0	2.0	2.0	2.0	1.0	6.0	14.0
NECSAS Inspections Conducted	7	5	8	11	2	N/A	33
EC/OSH Training Programs Conducted	10	14	21	38	41	N/A	124
Employees Trained	138	231	245	432	956	N/A	2,002
Employees Served	2,544	2,962	2,175	3,400	3,547	N/A	14,628
NECSAS Inspections/FTE	7.0	2.5	8.0	6.5	2.0	N/A	2.06
Training Programs/FTE	10	7	10.5	19	41	N/A	8.9
Employees Served/FTE	1 to 2,544	1 to 1,481	1 to 1,088	1 to 1,700	1 to 3,547	N/A	1 to 1,045
Employees Trained/FTE	138	115.5	122.5	216	956	N/A	143

Due to the limited number of staff, the organization is unable to conduct many of the safety assessments, as required by the DOC and as specified in 29 CFR 1960.25. The DOC requires annual safety inspections for all high-risk sites and tri-annual inspections for all other locations. In 2003, NOAA completed a total of 33 safety inspections/ assessments. This includes assessments completed by both government and contractor staff.

With regard to the ratio of full-time safety professionals to employees or customers served, it should be noted that in both EASC and Wash DC, where the second safety professional positions are currently vacant, the ratios are twice as high as the more adequately staffed CASC, MASC, and WASC. Interestingly, the limited staffing at EASC and Wash DC has not seemingly had a negative impact on the number of safety training sessions conducted in the past fiscal year.

12.2.1.3 External Benchmarking

The Internal Revenue Service and the Environmental Protection Agency were identified by NOAA and Booz Allen as relevant organizations to benchmark against for the environmental compliance and health & safety program assessment. Through in-person and telephone interviews, as well as through industry reports, Booz Allen gathered the data required for NOAA's analysis. Information on performance variables to include workload and skill and competency information has also be collected and analyzed. In addition to these two organizations, Booz Allen has identified two additional agencies that may serve as effective benchmarking partners. The benchmarking partners identified in this section are unique to this function and do not correspond with other sections of this document.

Based on the units of measure identified, Exhibit 12-5 presents a comparative analysis of the productivity of NOAA's ASCs and the four benchmarking partners identified. Exhibit 12-5 provides a comparison of indicators and metrics between NOAA and the benchmarking partners.

Exhibit 12-5: Comparison of Environmental Compliance, Health & Safety Indicators and Metrics

	Indicators					Metrics			
	Average number of safety assessments completed per year	Total number of full-time environmental comp & OSH staff	total number of collateral duty environmental comp & OSH staff	Total number of manned office locations	Total number of employees served	Full-time staff ratio	All staff ratio	FY02 number of illnesses/injuries per 100 employees[34]	Average % of manned office locations assessed per year
EASC	7	1	N/A	320	2,544	1: 2,544	N/A	1.78	2.2
CASC	5	2	N/A	180	2,962	1: 1,481	N/A	1.78	2.8
MASC	8	2	N/A	75	2,175	1: 1,088	N/A	1.78	11.0
WASC	11	2	N/A	80	3,400	1: 1,700	N/A	1.78	14.0
Wash DC	2	1	N/A	7	3,547	1: 3,544	N/A	1.78	0
HQ	N/A	6	N/A	N/A	N/A	N/A	N/A	1.78	0
IRS	483	4	56	795	117,000	1: 29,000	1:1,950	1.91	61
BP1	N/A	47	400	1,500	64,000	1: 1,362	1:160	2.23	N/A
EPA	145	15	45	110	18,000	1: 1,200	1:300	1.01	132
BP2	N/A	13	45	30	16,000	1: 1,231	1:276	2.16	N/A

At NOAA, the ratio of full-time safety staff to employees served, which is a recognized measure of both program reach into the workforce and general capacity, ranges from 1:1,088 to 1:3,544. At the more effective benchmarking partner organizations, this ratio typically approaches 1:1,200.

The IRS has a particularly high ratio of full-time safety staff to employees served. While current budget constraints preclude the organization from addressing the full-time staff issue, the IRS is working to increase its collateral duty staff counts and thereby compensate for the minimal full-time staff allocation.

Potentially even more informative is the ratio of all safety staff to employees served, which includes all collateral duty staff. At the more effective benchmarking partners, this ratio approaches 1:250. Unfortunately, as NOAA does not currently have an understanding of the number of collateral duty safety staff in place throughout the line offices, this metric cannot be utilized at this time.

Another key metric is the percentage of manned office locations that are assessed for safety each year. While NOAA has a defined schedule for safety assessments, based on guidance from the DOC and the 29 Codes of Federal Regulation (CFR), the assessment

[34] Note: Figure is for NOAA-wide FY02 Illnesses or Injuries per 100 employees. No data exist at the ASC level.

schedule is not being adhered to due to a lack of human and capital resources to fund the efforts. NOAA currently conducts safety assessments in no more than 14 percent of its locations in a given year, per ASC. In some regions, such as the Washington, DC metropolitan area, no safety assessments were completed in FY 2003.

At the IRS and the EPA, 61 percent and 132 percent, respectively, of manned office locations were assessed in the past fiscal year for safety and environmental compliance. A significant contributor to the fact that these organizations can complete such a high percentage of assessments in any given year is the fact that both organizations employ a standardized set of tools and forms to facilitate the assessment process. In addition, the ability to leverage geographically distributed staff that identifies safety as a collateral duty is particularly valuable.

A key to successfully using collateral duty staff to extend an organization's reach is effective training. Both the IRS and EPA have established very strong safety training guides for various types of staff, including safety professionals, collateral duty safety staff, and general employees who do not have any formal safety training, experience, or understanding.

12.2.2 Customer Service Satisfaction Analysis

Booz Allen conducted a survey for the NOAA finance and administrative services organization to obtain customer input on the quality of the services provided to customers. As the survey responses were not solicited with respect to particular environmental compliance and safety & health service areas (i.e., safety assessments or hazard resolution), specific correlations cannot be drawn between the average ratings at an ASC and the productivity shown in Section 12.2.1.2. However, based on the data that is available, at a nationwide average rating of 3.8 out of 5.0, customers have placed the overall business line at the 76th percentile. The rating scale for Customer Satisfaction is based on a 1-5 Likert scale[35]. The customer satisfaction results, reported by average rating scores, reflect the data collected from these surveys and are documented in Exhibit 12-6.

[35] Rating Scale for Customer Satisfaction Survey:

1. Services **seldom** meets your needs in a timely manner and are free from errors
2. Services **sometimes** meet your needs in a timely manner and are free from errors
3. Services **often** meet your needs in a timely manner and are free from errors
4. Services **usually** meet your needs in a timely manner and are free from errors
5. Services **always** meet your needs in a timely manner and are free from errors

Exhibit 12-6: Comparison of Customer Satisfaction Survey Results

Environmental Compliance, Occupational Safety and Health	EASC	CASC	MASC	WASC	HQ	TOTALS
Internal Customers	3.7	3.8	4.1	3.9	3.2	3.7
All Customers	3.7	3.8	4.1	3.9	3.2	3.7

In addition to the quantitative analysis conducted through the customer satisfaction survey, qualitative feedback was also solicited from the survey participants. The qualitative feedback presented below represents a sampling of the comments most frequently discussed during the customer interviews.

- Nearly all customers surveyed indicated that they felt the environmental and safety staff were talented and experts in their field.
- Several customers indicated that the environmental compliance and safety staff seemed overwhelmed in their work.
- Several customers indicated that the funding allocated towards environmental compliance and safety at NOAA was inadequate, which led to an inability to address routine environmental compliance issues and conduct necessary training.

Established cycle times for the Environmental Compliance, Occupational Safety and Health functional areas, are primarily focused on incident reporting for workplace accidents or injuries. The established cycle time for incident reporting is set at 24 hours.

Currently, NOAA ECSH staff are not meeting these cycle times for most incidents. Reporting of an accident or injury could take over 2-6 months to accomplish, as the incidents are often not reported to the NOAA ECSH professionals through the proper channels.

The cycle times for service delivery of other ECSH activities are often impacted by the scope or magnitude of the work, predetermined service level agreements with customers, and the individual capabilities of the ECSH staff.

Analysis on the adequacy of the Environmental Compliance, Occupational Safety and Health service mix, in terms of breadth of services offered and quality of services delivered, was conducted based on information collected from the NOAA Environmental Compliance, Occupational Safety and Health staff, customers and industry understanding gained by research performed by Booz Allen in the field of Environmental Compliance, Occupational Safety and Health.

Anecdotal evidence from customer interviews on the Environmental Compliance, Occupational Safety and Health services consistently indicated that the range of

services provided through this functional area was a mix appropriate for the customer needs.

The lack of funding available to this function impacts the abilities of the ECSH professionals to carry out the level of activity that would allow them to effectively address NOAA's ECSH needs. As previously mentioned, due to the limited funding and number of staff, the organization is unable to conduct many of the safety assessments, as required by the DOC and as specified in 29 CFR 1960.25. The DOC requires annual safety inspections for all high-risk sites and tri-annual inspections for all other locations. In 2003, NOAA completed a total of 33 safety inspections/assessments. This includes assessments completed by both government and contractor staff.

12.2.3 Management Process Analysis

Planning and Budgeting
Based on anecdotal evidence obtained from management interviews, effective planning and budgeting within NOAA for Environmental Compliance, Occupational Safety and Health is difficult to achieve in its present state.

The budgeting process for ECSH programs reflects the fractured nature of the organization. While budgets for the Environmental Compliance programs are established at the Headquarters level, those for the programs of the Regional Safety Managers are passed down through the ASC budgets. As such, it is difficult to coordinate the programs of the two services due to the varied amounts of funding available to each. In certain instances the Environmental Compliance program will provide funding to the Regional Safety Managers to carry out joint ECSH initiatives.

Although the planned budgets for Environmental Compliance include funding to carry out a full range of Environmental Compliance initiatives and a larger number of inspections on facilities, actual budgets received allow for significantly less.

Workload Forecasting
The budget process for the Environmental Compliance, Occupational Safety and Health services often impacts the ability to effectively forecast workloads. As ECSH workload is often tied to the size of the budget received, effective planning for the amount of inspections or training sessions that can be performed is difficult to achieve. Additionally, as the budgets for the Regional Safety Managers are passed down through the ASCs and these budgets are commonly delivered mid-fiscal year, the ability the ability to effectively forecast workloads is further hindered.

NOAA is also advocating for the Line Offices to accommodate more of the responsibility for safety and environmental programs. As the impacts of these efforts are determined, this may provide some additional ability to forecast workload as the roles and responsibilities of carrying out the ECSH program become more defined.

Policy Development and Documentation

During each of the ASC interview sessions, as well as during discussions with staff in Wash DC and Headquarters, Booz Allen asked specific questions in an attempt to determine the amount of time and resources being applied to oversight and policy functions versus operational support.

In the ASCs, a minimal amount of time is being spent on oversight activities and on the development of policies. The staff at each ASC, which is typically composed of a Regional Environmental Compliance Officer (RECO) and a Regional Safety Manager (RSM), are focused on providing operational, day-to-day support for the environmental compliance and occupational safety & health business lines. It should be noted, however, that staff at the ASC level do spend a portion of their time each year developing new or updated procedures to support the policies provided by Headquarters.

Approximately 1.0 of the 9.0 FTEs in the environmental compliance and occupational safety & health business line are dedicated to policy development and documentation at Headquarters. Exhibit 12-7 shows the distribution of oversight/policy activities versus operational activities, based on our current understanding of workload distribution. This data includes all government and contractor FTE.

Exhibit 12-7: As-Is Policy/Oversight vs. Operations FTE Delineation

	EASC	CASC	MASC	WASC	WASH DC	HQ	TOTAL FTEs	TOTAL PERCENTAGE
ENVIRONMENTAL COMPLIANCE	1.0	2.0	2.0	2.0	1.0	6.0	**14.0**	**100.0%**
OPERATIONS	1.0	2.0	2.0	2.0	0.0	6.0	**13.0**	**92.9%**
POLICY / OVERSIGHT	0.0	0.0	0.0	0.0	1.0	0.0	**1.0**	**7.1%**

Note: FTEs associated with operational and policy/oversight

The Organizational Analysis and Redesign that is detailed in the anticipated transition plan for Environmental Compliance, Occupational Safety and Health (Deliverable Four: Transition Plan, December 15, 2003) will allow for the identification and establishment of the necessary resources for policy development and documentation. The To-Be structure for ECSH does propose the concentration of existing resources at the Headquarters focus on the policy development and documentation. Exhibit 12-8 provides additional detail on the delineation of operative work versus policy and procedural development and oversight.

Exhibit 12-8: To-Be Policy/Oversight vs. Operations FTE Delineation

	FTE DISTRIBUTION DATA			
	EASTERN OPS	WESTERN OPS	HQ	TOTALS
Oversight/Policy Activities	0 FTE (0%)	0 FTE (0%)	6.0 FTE (100%)	6.0 FTE (43%)
Operational Activities	4.0 FTE (100%)	4.0 FTE (100%)	0 FTE (0%)	8.0 FTE (57%)

Total	4.0	4.0	6.0	14.0

Process Design and Technology Utilization
Within Environmental Compliance, Occupational Safety and Health, process evaluation and design often occurs at the local level in the ASCs. ECSH professionals will often develop additional tools, or modify or customize existing processes to aid in the delivery of their services. RECOs or RSMs in the ASCs have often developed local databases or spreadsheets to track performance data or inspection results, as the current system does not allow for comprehensive recording of all ECSH activity.

The environmental compliance and occupational safety and health services programs leverage an online EC/OSH assessment database called the Web Hosted Assessment Manager (WHAM), which tracks all of the NOAA Environmental Compliance and Safety Assessment System (NECSAS) inspections. Currently, the system is only used to track Tier I assessments/inspections, which are conducted by contract staff. The goal is to eventually track all Tier I, Tier II, and Tier III assessments using this web-hosted system. A handheld 'palm pilot' type system is currently being developed to allow direct, remote access to the database from any field location.

Staff Training and Organizational Development
Due to the lack of resources available to the Environmental Compliance, Safety and Health service areas, training and other forms of professional development have been very limited. Prior to the limitation of resources, personnel from the ECSH service areas have benefited from annual opportunities to meet collectively and learn from the experiences, best practices and general sharing of ideas that occurs in these instances.

The proposed concept of operations for Environmental Compliance, Safety and Health institutes an organizational and operational structure that encourages and establishes a collaborative working environment. Through the consolidation of the ECSH operations to the Eastern and Western Operations, Booz Allen is recommending the concept of Centers of Excellence where the ECSH staff will not only benefit from the presence of others engaged in the same business line, but also the ability to collaborate across business lines. Staff from Environmental Compliance, Safety and Health, Design and Construction and Real Property will be able to access a common information technology system and leverage the knowledge and capabilities of their peers in carrying out project work. Additional information on these recommendations can be found in Section 9 of Deliverable Three: Recommendations for Cost Effective Service Improvement, December 15, 2003.

Performance Measurement, Reporting, and Accountability
Currently, performance data is tracked locally by the ECSH professionals within the ASCs and reported to Headquarters. As no standardized method exists for tracking or reporting this data, the methods used and quality of the data are inconsistent and differ

from ASC to ASC. Performance is typically measured in terms of number of inspections and training programs conducted and number of customers trained.

In Deliverable Three: Recommendations for Cost Effective Service Improvement, December 15, 2003, Booz Allen has identified examples of key measures that should be captured to provide a better idea of actual workload, productivity, quality, and service. These measurements include:

- Ratio of all environmental compliance, safety, and health staff to total employee population to begin understanding the reach of a specialized function (such as environmental compliance, safety, and health);
- Percentage of manned locations assessed for environmental compliance, safety, and health issues each year;
- Individual, service area, and functional area performance goals, based on metrics that are consistently captured and applied across the organization; and
- Standard and periodic customer satisfaction results.

Performance Analysis and Improvement
As performance data collected within the NOAA Environmental Compliance and Occupational Safety and Health community has been limited in both quantity and quality, analysis of this information has been very basic. This high-level analysis does not produce the type of information that allows for in-depth examination into the details of the business lines. Subsequently, the ability to glean opportunities for improvement from this data is extremely limited and processes often go unchanged.

Potential opportunities for improvement exist within Environmental Compliance and Occupational Safety and Health services. The identification of these opportunities is directly related to the ability to effectively track the service specific performance measures and analyze the areas of existing strengths and weaknesses.

12.3 RECOMMENDATIONS AND IMPLICATIONS

12.3.1 Recommendations

RECOMMENDATION EC.1: Consolidate environmental compliance, health and safety (ECHS) services delivery capacity to Eastern and Western Operations, redefine the roles and responsibilities of ECHS staff, and enhance the Wed Hosted Assessment Management (WHAM) system to accommodate the comprehensive ECHS lifecycle

Currently, Regional Safety Managers (RSMs) and Regional Environmental Compliance Officers (RECOs) are located throughout the four field ASCs. While the RSMs report directly to the local Facilities and Logistics Division Chief, the RECOs all report directly

to the ECHSS Office at Headquarters in Washington, DC. The current geographic and organizational structure of the ECHS program does not support the consistent delivery of service to customers through the use of standardized policies, processes, and procedures. Although ECHS staff do engage in a limited amount of 'work sharing' across the ASCs, the ability to realize a community of practice is minimal due to the geographic dispersion.

Booz Allen recommends the consolidation of the ECHS services staff to Eastern and Western Operations. In this model, business line processes and delivery capacity will benefit from operating in a 'Center of Excellence' model where staff can establish a community of practice and function in a collaborative manner. For ECHS staff, this consolidation establishes a critical mass of at least four staff per Operations location. While two RSMs and two RECOs would be based in each location, all four of these ECHS staff will report directly to the ECHSS Office at Headquarters.

Staffing levels for each location may be adjusted in the future, when NOAA has the opportunity to determine the actual level of involvement from Line Office based ECHS staff. When the level of Line Office based ECHS staff involvement is determined, new staffing level requirements can be calculated, based on anticipated workload and an established target level of transactions per employee. In the meantime, increased levels of 'work sharing' are encouraged, as are project specific out-tasking efforts.

ECHS staff will also be supported by two key information technology tools:

- **Web-Hosted Assessment Management (WHAM) System –** This system is currently used by NOAA ECHS staff to manage, record, and report the Tier I assessment efforts. This system should be expanded to support Tier II and Tier III assessments and augmented by a separate system to support the comprehensive ECHS program lifecycle (to include planning, organizing, implementing, and controlling).
- **Web-Based, COTS Project Planning, Estimating, Management, and Reporting System –** This system, which will be owned and managed by the design and construction / real property service areas under facilities and logistics, can also be leveraged by the ECHSS Office to manage ECHS specific facility projects / improvements. This system will facilitate collaborative work processes and streamline the reporting process for the ECHS and Real Property and Facilities programs. This level of integration will serve to streamline the coordination and communications process between service areas and begin to provide a comprehensive organization history of real property and facilities related project efforts.

RECOMMENDATION EC.2: Realign Regional Safety Managers (RSMs) and associated staff from each local Facilities & Logistics Division to the Environmental Compliance, Health, Safety & Security Office (ECHSSO) at Headquarters

Currently, NOAA's RSMs and any of their associated support staff are physically located at the ASCs and report directly to the Facilities and Logistics Division Chief in each location. As recently as five years ago, both the RSMs and the RECOs reported to the Facilities and Logistics Chiefs within the ASCs. When this reporting alignment was changed, the RSMs were typically not able to engage in travel to Line Office locations unless the customers paid for the travel. This restriction was typically based on budget restrictions. The RECOs continued to engage in project and program related travel, which is critical to the successful completion of their organizational mission.

Booz Allen recommends that the RSMs be realigned to report to the ECHSSO at Headquarters in Washington, DC. In addition to providing RSMs with more flexibility with regards to program and project related travel, the realignment will allow the environmental compliance and occupational safety and health staff to collectively contribute to the development of an organization that comprehensively addresses ECHS issues. This realignment will also, likely, support the development of a cross-training and cross-learning work environment.

Additional information regarding the recommendations for the ECSH services can be found in Section 11 of Deliverable Three: Recommendations for Cost Effective Service Improvement, December 15, 2003.

12.3.2 Target Organization

Given the fact that many of the ECHS services provided by the finance and administrative services at NOAA are location independent, service delivery capacity was generally centralized to hubs within the west and east. The management and administration service area will be completely centralized to operate from Headquarters in Washington, DC.

It should be noted that an internal effort, being driven by the ECHSS Office, is recommending that the ECHSS Office should be realigned to report to a higher level of management. This realignment has not been addressed in this study.

Additional information regarding the target organization for the ECSH services can be found in Section 11 of Deliverable Three: Recommendations for Cost Effective Service Improvement, December 15, 2003.

A comparison of the As-Is and To-Be macro-level staffing concentration for the Environmental Compliance, Occupational Safety and Health business line is shown in Exhibits 12-9 and 12-10. These Exhibits also identify and compare the costs associated with each scenario.

Exhibit 12-9: Total Environmental Compliance Annual Operating Costs for As-Is

Environ Comp *As-Is*	EASC		CASC		MASC		WASC		Wash DC		Headquarters		Total	
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost
Government Labor	1.0	$ 112	2.0	$ 224	2.0	$ 224	2.0	$ 224	1.0	$ 112	6.0	$ 673	14.0	$ 1,570
Contractor Labor	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -
Variable Overhead		$ -		$ -		$ -		$ -		$ -		$ -		
Fixed Overhead		$ -		$ -		$ -		$ -		$ -		$ -		
Total	1.0	$ 112	2.0	$ 224	2.0	$ 224	2.0	$ 224	1.0	$ 112	6.0	$ 673	14.0	$ 1,570

Notes: Calculations assume current workload and exclude effect of transition costs.
All dollars are in thousands ($000s)

Exhibit 12-10: Total Environmental Compliance Annual Operating Cost for To-Be

Environ Comp *To-Be*	Western Operations		Eastern Operations		Headquarters		Total		Percent Change	Net Cost Differential *
	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost		
Government Labor	4.0	$ 449	4.0	$ 449	6.0	$ 673	14.0	$ 1,570	0%	$ -
Contractor Labor	0.0	$ -	0.0	$ -	0.0	$ -	0.0	$ -	0%	$ -
Variable Overhead		$ -		$ -		$ -		$ -	0%	$ -
Fixed Overhead		$ -		$ -		$ -		$ -	0%	$ -
Total	4.0	$ 449	4.0	$ 449	6.0	$ 673	14.0	$ 1,570	0%	$ -

The total number of FTEs directly aligned to the Environmental Compliance, Occupational Safety and Health business lines in the proposed operating model is 14. The estimated, burdened cost associated with these FTEs is $1,570,000. As you can see, these staffing levels were not changed in the new operating model. The key metric that NOAA should consider to determine accurate staffing levels for safety and health functions is one ECHS staff person per 500 employees served. Due to the fact that data is not available for the Line Office safety personnel counts, this metric could not be calculated.

Additional information regarding the staffing and cost differentials for the ECSH services can be found in Section 11 of Deliverable Three: Recommendations for Cost Effective Service Improvement, December 15, 2003.

13. TRANSITION PLAN

The Transition Plan presented in this document serves as a high level road map to assist NOAA's finance and administrative services organization in preparing for the transition to a function-based service delivery model. This transition represents a significant departure from the As-Is model and will require management commitment as well as steady and consistent leadership support at all levels of the organization to be successful.

In an effort to manage this change, Booz Allen recommends a phased implementation approach over a three-year period. This timeline will allow for aggressive yet achievable implementation schedules as well as ensure that the organization is not kept in suspense longer than necessary. The three phases include:

Phase I. Program Launch and Preliminary Organizational Realignment

Phase II. Detailed Process and Organization Design

Phase III. Final Implementation and Realization

The phases, and the sequencing of the transition activities within each phase, are meant to ensure that any activities on the program's critical path are completed in time to allow for other dependent efforts to be initiated.

Booz Allen has identified the most important of these critical path activities and success factors to be:

1. Establishment of a Program Management Office (PMO) to direct the implementation of the program with responsibility for reporting progress to the new Assistant Administrator for Management.
2. Identification of NOAA functional leadership teams to lead the restructuring of each administrative service and the appointment of a Transition Advisory Board of senior leadership to oversee transition activities. Involvement by representatives of staff from all levels of the organization will be required in planning, conducting, and evaluating the impact of transition activities.
3. Identification of a reliable funding stream for the program, with well-defined return on investment expectations. This will be an ongoing responsibility requiring coordination between the program management office and NOAA leadership.
4. Implementation of a communications and change management strategy to ensure that staff is informed about the objectives, schedule, and management of the program. This strategy would provide an ongoing framework for two-way communication and ensure that issues related to the transition are effectively identified and addressed.

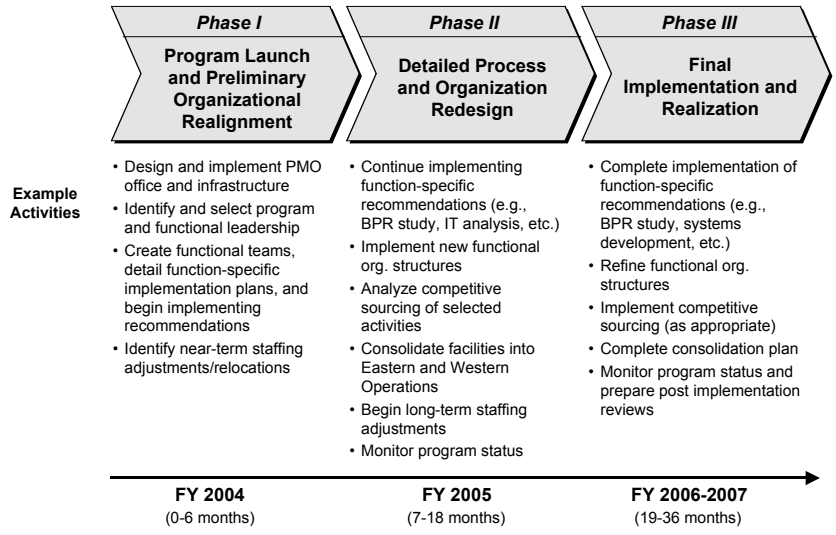
NOAA's ability to realize the benefits of the recommended service delivery model and the ultimate success of the program as a whole will rely heavily on the organization's ability to manage and deliver upon these critical success factors. For example, failure to deliver on one of these factors (e.g., identification and commitment of program leadership, securing adequate funding, etc.) would likely change the context of the recommendations, put the program at risk, and may result in a recommendation to suspend the implementation.

For this reason, Booz Allen encourages careful consideration of these critical success factors and has identified recommendations for addressing them early in the transition and managing them throughout the remainder of the three-year implementation timeline. These recommendations are described in further detail in the Phased Implementation Approach and Program Management section.

13.1 PHASED IMPLEMENTATION APPROACH

Booz Allen envisions a three-phased implementation plan, over a period of three years, for NOAA's finance and administrative services organization to fully transition to a function-based service delivery model and to implement most, if not all, of the improvement recommendations. A high-level view of the three-phased approach is shown in Exhibit 13-1. A more detailed description of transition activities by phase is included later in this section.

Exhibit 13-1: Three-Phased Transition Approach



13.1.1 Phase I

The "Program Launch and Preliminary Organizational Realignment" phase will span the first six months of the transition and begin with the tasks necessary to support the

plan through completion. This phase represents the initial program organization and the early realignment of the top-level organization into the function-based service delivery model.

Many of the activities identified in Phase I address the critical success factors discussed earlier in this section, the most important being the design and implementation of the program management office (PMO) to lead and oversee the organizational transformation. The PMO will play a leadership role throughout the duration of the transition by assisting in the identification of resources, developing and executing a change management and communications strategy, and monitoring and reporting progress against the program's goals.

Aside from building the program management infrastructure, another critical activity to be performed in this phase is the identification and selection of senior management staff to lead each function. This activity is meant to begin the early organizational realignment and will enable each function to move forward in creating 'tiger' teams (teams focused on leading the change efforts within their function) and the development of detailed function-specific implementation plans.

Once the functional tiger teams have been established and detailed plans have been developed, each of the teams are expected to begin implementing the recommendations presented in this report, which may include organizational redesign, business process reengineering, information technology analysis, etc.

The proposed master schedule identifies the recommendations that fall into activities that begin in Phase I. At the end of Phase I the program management infrastructure and upper management organizational realignment necessary to support the transition will have been established. Further, several of the recommendations are expected to be showing early signs of progress.

13.1.2 Phase II

The "Detailed Process and Organization Redesign" phase, 7 to 18 months from the outset of the plan, will include the completion of activities for several recommendations as well as the initiation of several of the recommendations that typically require longer implementation timelines (e.g., competitive sourcing analysis, information technology enhancements, etc.).

Many of the recommendations will have moved from initiation to completion within this one-year timeframe and the results of these efforts will have begun to produce increases in efficiency and quality of service. The improvements to policies, procedures, competencies, and systems will allow for the careful build up the Eastern and Western Operations and the subsequent closing of several facilities.

Improvements in efficiency and quality and the resulting consolidation of operational facilities will bring significant staffing adjustments, including hiring, relocations, and

downward staff adjustments (i.e., attrition, early retirement, etc.). The sequencing of the build-up and consolidation of facilities will be performed so as to avoid disruptions in service and will depend heavily upon the progress made in implementing the recommendations outlined in this report.

The proposed master schedule identifies the recommendations that are beginning or already underway in Phase II. At the end of Phase II, many of the recommendations will have been completed and will begin to show resulting increases in efficiency and quality. These improvements will have enabled the consolidation into the Eastern and Western Operations Centers and staffing will have been adjusted accordingly.

13.1.3 Phase III

The "Final Implementation and Realization" phase takes place in months 19 to 36 months of the transition and includes the completion of several of the function-specific recommendations as well as the refinement of the new organizational structure. Several initiatives begun in Phase II (i.e., information technology and competitive sourcing implementation) are expected to be complete by the end of this phase. This phase will also be used to refine the organization, processes, policies, etc. (as needed) and to review the results of the overall transition program.

The proposed master schedule identifies the recommendations that are underway or scheduled to be completed in Phase III. At the end of Phase III, the organization will have achieved new levels of efficiency and quality and will be refining the service delivery model as needed.

13.1.4 Overview of the Transition Activities by Phase

Exhibit 13-2 is designed to provide NOAA with an overall snapshot of the three phases and a high-level view of the recommended activities that will occur in each. These activities are not specific to any given function, but are rather grouped by generalized change management categories to provide a high-level view of the expected transition activities.

Exhibit 13-2: Transition Activities by Category and Phase

Category	Phase I: FY04 (0-6 months)	Phase II: FY05 (7-18 months)	Phase III: FY06-07 (19-36 months)
Program Management	• Design and implement PM Office and infrastructure • Detail program and function-specific implementation plans by phase • Source and deploy program resources	• Produce monthly program status reports • Plan and execute quarterly exec briefings • Track program costs and resources	• Prepare project closeout reports and post implementation reviews
Organizational Design	• Select a NOAA Assistant Administrator for Management • Select functional leaders and create functional 'tiger' teams	• Detail functional organizations by location • Implement new functional org structures	• Refine functional structures at sub-structure level
Process Analysis and Redesign	• Analyze internal performance variations • Survey internal best practices • Begin detailed end-to-end analysis of selected processes	• Complete To-Be redesign of major admin processes • Analyze competitive sourcing of selected activities	• Implement To-Be process redesigns • Implement outsourcing, as appropriate
Information Technology	• Assess functionality and utilization of installed software • Identify near-term enhancements	• Detail IT requirements • Develop business cases • Develop systems and IT enhancements	• Continue developing systems and IT enhancements • Implement IT enhancements
Performance Management	• Set internal performance benchmarks • Integrate performance mgmt initiatives • Design performance report formats and initiate performance reporting	• Track and report performance • Revise performance standards to reflect BPR outcomes • Revise plans and budgets as appropriate	
Documentation	• Document best internal practices • Create/update administrative policy & procedure manuals	• Continue to refine administrative policies related to the changing organization	• Prepare and disseminate new policies that reflect the new organizational design
Training	• Inventory staff competencies & training needs • Begin design of staff training programs	• Complete training program design • Begin training program delivery • Monitor training outcomes	• Continue training program delivery • Continue monitoring training outcomes
Communications	• Design program communications plan • Communicate organizational changes	• Execute communications plan and adjust as necessary to meet the needs of key stakeholders	
Physical Facilities	• Develop functional service location plans, evaluate lease options, etc. • Translate into facilities requirements	• Consolidate facilities into Eastern Operations and Western Operations	• Conclude the consolidation plan
Consolidation	• Identify near-term staffing adjustments and relocations • Identify outplacement strategies	• Adjust near-term staffing levels • Begin long-term staffing adjustments	• Adjust staffing levels (as necessary)

13.2 DETAILED MASTER SCHEDULE

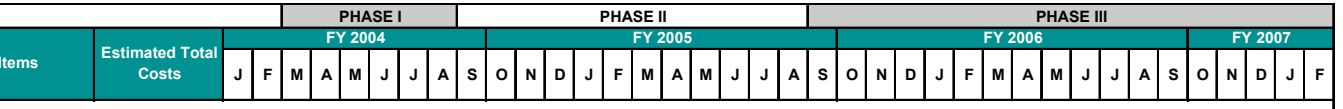
A summary of the recommendations as well as a high-level view of the estimated costs and timeline needed to achieve the desired end-state has been compiled in Gantt chart format in the following pages.

Many of the global recommendations, and the activities necessary to implement those recommendations, have already been described in the prior section. This Gantt chart is meant to provide a more detailed identification of the activities, estimated costs, and timeline to implement the function-specific recommendations (e.g., perform a business process reengineering analysis for the Finance Services function). For several of the recommendations, no transition costs were estimated. In these cases, Booz Allen made a decision not to show transition costs because the activities were either already in progress or could be implemented using existing government resources and personnel only.

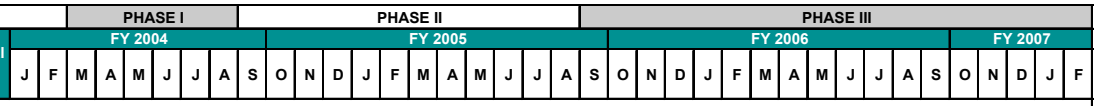
At a high-level, the sequencing of these activities should reflect the earlier description of the three-phased transition approach. Within each function, the sequencing (i.e., which recommendation to implement first, second, etc. within each function) represents Booz Allen's judgment as to when each recommendation could begin within the context of phased implementation approach. There are several function-specific recommendations (e.g., transferring responsibilities, organizational realignments, etc.) that may represent 'quick hit' recommendations that can be accomplished early in the transition timeline with relatively limited resources. Ultimately however, it is the responsibility of each functional lead to assess the priorities and identify the sequencing of initiatives necessary to implement the recommendations within each function.

ID No.	Recommendation / Activity / Transition Cost Items	Estimated Total Costs	PHASE I								PHASE II												PHASE III																	
			FY 2004								FY 2005												FY 2006												FY 2007					
			J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F
Global		*$ 5,276,094*																																					
GL.1	**Establish the Office of the Assistant Administrator for Management**	$ -																																					
GL.2	**Create a Transition Program Management Office (PMO) to manage transition activities**	$ 4,242,900																																					
	Program Management (includes 7 Govt. / 1 Contractor FTEs)																																						
	Communications																																						
GL.3	**Develop a plan to re-staff key positions in the new organizational structure**	$ 150,000																																					
	Process Analysis and Redesign	$ 150,000																																					
GL.4	**Assess the ABC initiative and define the steps required to improve the accuracy and utility of ABC data**	$ -																																					
GL.5	**Conduct a study of the services provided to non-NOAA customers by the finance and administrative function, and the costs and revenues associated with such services**	$ -																																					
GL.6	**Conduct an analysis of the administrative processes and activities carried out within NOAA's line offices**	$ 500,000																																					
	Organizational Analysis and Redesign	$ 500,000																																					
	Downsizing	$ 371,319																																					
	Restaffing (Relocations/Hires)	$ 11,875																																					
Finance Services		*$ 3,060,716*																																					
FS.1	**Consolidate financial operations into two support groups under the direct control of the Director of Finance/ Comptroller**	$ 250,000																																					
	Organizational Analysis and Redesign	$ 250,000																																					
FS.2	**Assess and redesign the activity of recording non-travel disbursements**	$ 350,000																																					
	Process Analysis and Redesign	$ 150,000																																					
	IT Planning and Analysis	$ 100,000																																					
	IT Implementation	$ 100,000																																					
FS.3	**Assess and redesign the activity of recording undelivered orders**	$ 150,000																																					
	Process Analysis and Redesign	$ 150,000																																					
FS.4	**Assess and redesign the activity of processing interfaced disbursements**	$ 350,000																																					
	Process Analysis and Redesign	$ 150,000																																					
	IT Planning and Analysis	$ 100,000																																					
	IT Implementation	$ 100,000																																					
FS.5	**Assess and redesign the process of recording employee travel disbursements**	$ 350,000																																					
	Process Analysis and Redesign	$ 150,000																																					
	IT Planning and Analysis	$ 100,000																																					
	IT Implementation	$ 100,000																																					
FS.6	**Implement the CSTARS/CAMS interface**	$ 500,000																																					
	IT Implementation	$ 500,000																																					
	Downsizing	$ 775,485																																					
	Restaffing (Relocations/Hires)	$ 335,231																																					

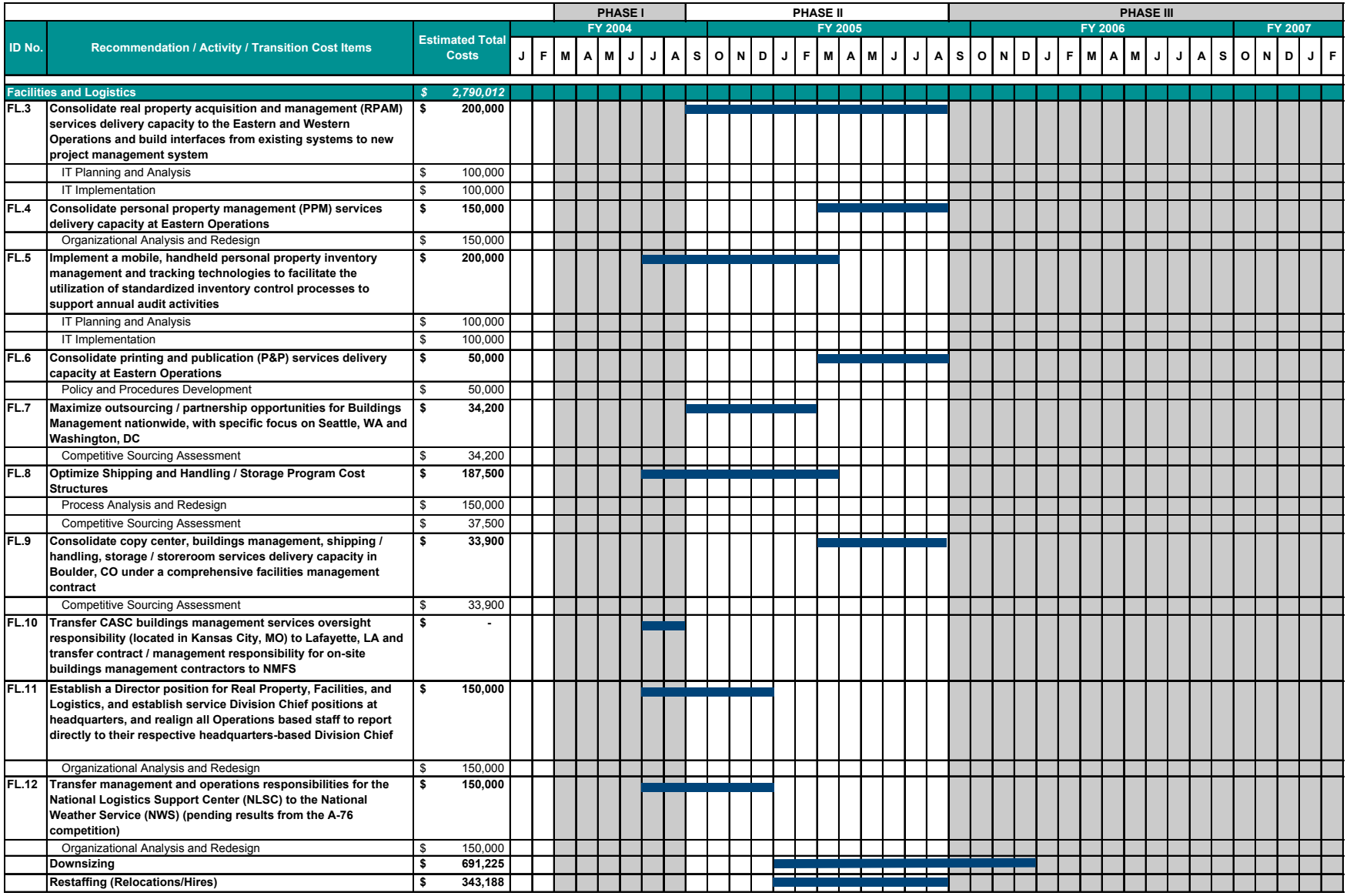
ID No.	Recommendation / Activity / Transition Cost Items	Estimated Total Costs
Budget Services		*$ 423,750*
BS.1	**Assess and redesign the entire budget process**	**$ 250,000**
	Process Analysis and Redesign	$ 250,000
BS.2	**Align the budget process (formulation through execution) as recommended by NAPA**	**$ 150,000**
	Process Analysis and Redesign	$ 150,000
BS.3	**Transfer PA&E to the direct control of the Director of Planning, Budget, and Performance**	$ -
BS.4	**Incorporate Business Management Fund and ABC in PA&E**	$ -
	Restaffing (Relocations/Hires)	**$ 23,750**
Acquisition Services		*$ 2,431,885*
AS.1	**Consolidate acquisition operations into two support groups under the direct control of the Director of Acquisitions**	**$ 250,000**
	Organizational Analysis and Redesign	$ 250,000
AS.2	**Create simplified acquistions workstream**	**$ 250,000**
	Process Analysis and Redesign	$ 250,000
AS.3	**Create contracts workstream**	**$ 250,000**
	Process Analysis and Redesign	$ 250,000
AS.4	**Increase customer outreach**	**$ 90,000**
	Travel (Recurring)	$ 90,000
AS.5	**Implement the CSTARS/CAMS interface (Costs included in FS.6)**	**$ -**
AS.6	**Provide in-house CSTARS support**	**$ -**
AS.7	**Increase audit and compliance support**	**$ 150,000**
	Travel (Recurring)	$ 150,000
AS.8	**Increase staff training**	**$ 550,000**
	Training Development	$ 50,000
	Training (Recurring)	$ 500,000
	Downsizing	**$ 571,260**
	Restaffing (Relocations/Hires)	**$ 320,625**
Grants Management		*$ 711,157*
GM.1	**Transfer responsibility for the Cooperative Agreement activity from MASC to Headquarters**	**$ -**
GM.2	**Deliver additional training to program offices**	**$ 60,000**
	Travel (Recurring)	$ 60,000
GM.3	**Leverage Grants Online capabilities within NOAA to improve Program Office Business Processes**	**$ 125,000**
	Process Analysis and Redesign	$ 125,000
GM.4	**Conduct analysis to extend Grants Online DOC-wide**	**$ 500,000**
	Process Analysis and Redesign	$ 500,000
	Downsizing	**$ 14,282**
	Restaffing (Relocations/Hires)	**$ 11,875**



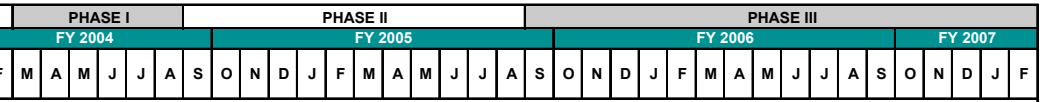
ID No.	Recommendation / Activity / Transition Cost Items	Estimated Total Costs
Workforce Management		***$ 2,614,130***
WM.1	**Consolidate Workforce Management operations into two support groups under the direct control of the Director of HR**	**$ 250,000**
	Organizational Analysis and Redesign	$ 250,000
WM.2	**Standardize the organizational structure of HR divisions so that Employee Relations Specialists and Benefits coordinators are distinct from Staffing Specialists and aligned with customers**	**$ 250,000**
	Organizational Analysis and Redesign	$ 250,000
WM.3	**Create a single, unified office, with a direct reporting line to the Deputy Undersecretary of NOAA, to house all EEO, Civil Rights, and Diversity related functions**	**$ -**
WM.4	**Automate the SF-52/SF-50 forms (using a COTS/GOTS package) and reengineer associated processes**	**$ 500,000**
	Process Analysis and Redesign	$ 150,000
	IT Planning and Analysis	$ 100,000
	IT Implementation	$ 100,000
	IT Hardware/Software	$ 150,000
WM.5	**Provide training, communication, and change management support for the Commerce On-Line (COOL) hiring system to HR staff and line office managers**	**$ 150,000**
	Process Analysis and Redesign	$ 150,000
WM.6	**Consolidate all Time & Attendance Coordination Activities in Boulder, as well as all related activities, such as the Leave Share and Leave Bank Program Coordination Activities**	**$ 150,000**
	Process Analysis and Redesign	$ 150,000
WM.7	**Develop and implement the capability to provide Strategic Workforce Planning and Comprehensive Training and Development services to NOAA staff through the Office of Human Resources**	**$ 250,000**
	Organizational Analysis and Redesign	$ 250,000
WM.8	**Conduct strategic workforce planning**	$ -
	Downsizing	**$ 596,967**
	Restaffing (Relocations/Hires)	**$ 467,163**
Facilities and Logistics		***$ 2,790,012***
FL.1	**Consolidate design and construction (D&C) services delivery capacity to Eastern and Western Operations and implement a web-based project management system to support D&C**	**$ 600,000**
	Organizational Analysis and Redesign	$ 250,000
	IT Planning and Analysis	$ 100,000
	IT Implementation	$ 100,000
	IT Hardware and Software	$ 150,000
FL.2	**Provide all policy and procedures direction at a consolidated Construction Projects Office (CPO) at the Real Property and Facilities headquarters in Washington, DC, (costs included in FL.1)**	**$ -**



ID No.	Recommendation / Activity / Transition Cost Items	Estimated Total Costs
Facilities and Logistics		***$ 2,790,012***
FL.3	**Consolidate real property acquisition and management (RPAM) services delivery capacity to the Eastern and Western Operations and build interfaces from existing systems to new project management system**	**$ 200,000**
	IT Planning and Analysis	$ 100,000
	IT Implementation	$ 100,000
FL.4	**Consolidate personal property management (PPM) services delivery capacity at Eastern Operations**	**$ 150,000**
	Organizational Analysis and Redesign	$ 150,000
FL.5	**Implement a mobile, handheld personal property inventory management and tracking technologies to facilitate the utilization of standardized inventory control processes to support annual audit activities**	**$ 200,000**
	IT Planning and Analysis	$ 100,000
	IT Implementation	$ 100,000
FL.6	**Consolidate printing and publication (P&P) services delivery capacity at Eastern Operations**	**$ 50,000**
	Policy and Procedures Development	$ 50,000
FL.7	**Maximize outsourcing / partnership opportunities for Buildings Management nationwide, with specific focus on Seattle, WA and Washington, DC**	**$ 34,200**
	Competitive Sourcing Assessment	$ 34,200
FL.8	**Optimize Shipping and Handling / Storage Program Cost Structures**	**$ 187,500**
	Process Analysis and Redesign	$ 150,000
	Competitive Sourcing Assessment	$ 37,500
FL.9	**Consolidate copy center, buildings management, shipping / handling, storage / storeroom services delivery capacity in Boulder, CO under a comprehensive facilities management contract**	**$ 33,900**
	Competitive Sourcing Assessment	$ 33,900
FL.10	**Transfer CASC buildings management services oversight responsibility (located in Kansas City, MO) to Lafayette, LA and transfer contract / management responsibility for on-site buildings management contractors to NMFS**	**$ -**
FL.11	**Establish a Director position for Real Property, Facilities, and Logistics, and establish service Division Chief positions at headquarters, and realign all Operations based staff to report directly to their respective headquarters-based Division Chief**	**$ 150,000**
	Organizational Analysis and Redesign	$ 150,000
FL.12	**Transfer management and operations responsibilities for the National Logistics Support Center (NLSC) to the National Weather Service (NWS) (pending results from the A-76 competition)**	**$ 150,000**
	Organizational Analysis and Redesign	$ 150,000
	Downsizing	**$ 691,225**
	Restaffing (Relocations/Hires)	**$ 343,188**



ID No.	Recommendation / Activity / Transition Cost Items	Estimated Total Costs
	Information Technology (IT) Services	***$ 4,037,914***
IT.1	**Consolidate IT consulting and application development support, located at HQ, reporting to the Director of Information Technology**	**$ 150,000**
	Organizational Analysis and Redesign	$ 150,000
IT.2	**Consolidate Finance and Administrative Service Enterprise Architecture Support, Policy and Planning, to the Finance and Administrative Service Director of Information Technology, and update enterprise technology**	**$ 1,550,000**
	Organizational Analysis and Redesign	$ 250,000
	IT Hardware/Software	$ 1,300,000
IT.3	**Transfer the support for FTS/Telecom to HQ, reporting to the Director of Information Technology**	**$ 150,000**
	Organizational Analysis and Redesign	$ 150,000
IT.4	**Transfer ownership of the MASC Library to the Library and Information Services Division within the National Oceanographic Data Center (NODC)**	**$ 50,000**
	Policies and Procedures Development	$ 50,000
IT.5	**Standardize and consolidate the help desk activity and administer a centralized Call Center (Help Desk)**	**$ 250,000**
	Process Analysis and Redesign	$ 250,000
IT.6	**Implement a formal Help Desk application and develop a defined customer relationship model (CRM)**	**$ 800,000**
	Process Analysis and Redesign	$ 150,000
	IT Planning and Analysis	$ 250,000
	IT Implementation	$ 250,000
	IT Hardware/Software	$ 150,000
IT.7	**Supplement operational IT infrastructure support with Federal contractors**	**$ 150,000**
	Process Analysis and Redesign	$ 150,000
IT.8	**Consolidate IT Security and Disaster Recovery Planning**	**$ 350,000**
	Organizational Analysis and Redesign	$ 250,000
	IT Implementation	$ 100,000
IT.9	**Conduct a formal assessment on the performance and user requirements for the finance and administration Information Technology Center**	**$ 150,000**
	Process Analysis and Redesign	$ 150,000
	Downsizing	**$ 414,164**
	Restaffing (Relocations/Hires)	**$ 23,750**



ID No.	Recommendation / Activity / Transition Cost Items	Estimated Total Costs	PHASE I								PHASE II												PHASE III																	
			FY 2004								FY 2005												FY 2006												FY 2007					
			J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F
Environmental Compliance and Health & Safety		*$ 480,783*																																					
EC.1	**Consolidate environmental compliance, health and safety (ECHS) services delivery capacity to Eastern and Western Operations, redefine the roles and responsibilities of ECHS staff, and enhance the Web Hosted Assessment Management (WHAM) system to accommodate the comprehensive ECHS lifecycle**	**$ 350,000**																																					
	Organizational Analysis and Redesign	$ 150,000																																					
	IT Planning and Analysis	$ 100,000																																					
	IT Implementation	$ 100,000																																					
EC.2	**Realign Regional Safety Managers (RSMs) and associated staff from each local Facilities & Logistics Division to the Environmental Compliance, Health, Safety & Security Office (ECHSSO) at headquarters**	**$ -**																																					
	Downsizing	**$ 71,408**																																					
	Restaffing (Relocations/Hires)	**$ 59,375**																																					
Other Functions		*$ 300,000*																																					
OT.1	**Establish a Management Support Office (MSO) to serve as the Budget Office for the new Assistant Administrator for Management**	**$ -**																																					
OT.2	**Assess and redesign the records management process for the Administrative Management and Executive Secretariat (AMES)**	**$ 150,000**																																					
	Process Analysis and Redesign	$ 150,000																																					
OT.3	**Provide additional study assistance for the Competitive Sourcing (CS) Program**	**$ 150,000**																																					
	Process Analysis and Redesign	$ 150,000																																					

13.3 PROGRAM COST BENEFIT ANALYSIS

The costs and benefits associated with moving to the new Concept of Operations are identified below. As indicated in Exhibits 13-3 and 13-4 below, current annual operating costs for all identified FTEs are $177,062,000. Annual operating costs for all identified FTEs in the proposed organization are $154,057,000. The net cost differential in annual operating costs between the two models is $23,005,000 after transfers have occurred. This represents a change of 13% on an annual basis after transfers. Transfers consist of functions and staff shifting to either main DOC or NOAA line offices.

Exhibit 13-3: Total Annual Operating Costs for As-Is

Summary	EASC		CASC		MASC		WASC		Wash DC		Headquarters		Total	
As-Is	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost
Government Labor	71.9	$ 7,490	118.8	$ 11,748	111.5	$ 11,262	116.7	$ 12,085	231.4	$ 23,029	267.6	$ 27,691	917.9	$ 93,306
Contractor Labor	3.4	$ 381	7.6	$ 921	8.1	$ 948	46.2	$ 5,043	95.0	$ 8,742	57.4	$ 7,231	217.8	$ 23,265
Variable Overhead		$ 631		$ 805		$ 1,394		$ 371		$ 3,620		$ 4,068		$ 10,889
Fixed Overhead		$ 161		$ 217		$ 226		$ 3,453		$ 161		$ 45,384		$ 49,602
Total	75.4	$ 8,663	126.42	$ 13,691	119.6	$ 13,829	162.9	$ 20,952	326.3	$ 35,552	325.0	$ 84,375	1135.6	$ 177,062

Note: Dollars are in thousands ($000s)

Exhibit 13-4: Total Annual Operating Costs for To-Be

Summary	Western Operations		Eastern Operations		Headquarters		Total		Net Cost Differential	Percent
To-Be	FTE	Cost	FTE	Cost	FTE	Cost	FTE	Cost	After Transfers *	Change
Government Labor	196.5	$ 20,114	284.3	$ 28,643	292.9	$ 30,654	773.7	$ 79,411	$ 13,895	-14.9%
Contractor Labor	67.1	$ 6,858	91.9	$ 8,632	69.9	$ 8,643	229.0	$ 24,133	$ (868)	3.7%
Variable Overhead		$ 450		$ 431		$ 3,822		$ 4,704	$ 6,185	-56.8%
Fixed Overhead		$ 265		$ 161		$ 45,384		$ 45,810	$ 3,792	-7.6%
Total	263.7	$ 27,687	376.2	$ 37,867	362.8	$ 88,503	1002.6	$ 154,057	$ 23,005	-13.0%

Notes: Dollars are in thousands ($000s)
Transfers occur within Facilities/Logistics and Information Technology
Calculations assume current workload and exclude effort of transition costs

Exhibits 13-3 and 13-4 also reflect the projected impact on staffing – a total reduction of 144.2 (15.7%) government FTEs. The "As-Is Total FTE Summary" column in Exhibit 13-3 indicates the current staffing levels within the existing organizational model. The numbers for current staffing are based the available ABC data, which was refined by using information gathered through interviews and finance and administrative services documentation.

The gross cost differential is the difference between the As-Is and the To-Be cost of operations before transfers occur. This would be the estimated savings that is realized having achieved the proposed To-Be model. The amount transferred totals $3.9M based on detailed recommendations for IT and Facilities. The majority of transfers to NOAA is based on management and operations responsibilities for the National Logistics Support Center moving to the National Weather Service on NLSC / Facilities, recommendation FL.12 in addition to FL.10. The transfer to NOAA is based on ownership of the MASC Library moving to the Library and Information Services Division within the National Oceanographic Data Center, recommendation IT.4. The net cost differential after transfers is the overall reduction in operating budget that would be achieved upon reaching the To-Be model.

Exhibit 13-5: Cost Differential Resulting from Transfers

Summary *To-Be*	Gross Cost Differential Before Transfers*	Transfers to NOAA	Net Cost Differential After Transfers*
Government Labor	$ 10,769	$ 3,125	$ 13,895
Contractor Labor	$ (1,286)	$ 419	$ (868)
Variable Overhead	$ 5,854	$ 331	$ 6,185
Fixed Overhead	$ 3,792	-	$ 3,792
Total	$ 19,129	$ 3,875	$ 23,005

Notes: *Dollars are in thousands (000s)*
**Gross cost differential before transfers: $19M is the actual finance and administrative services cost savings by implementing the To-Be model*
**Net cost differential after transfers: $23M is the total reduction in Operating Budget for finance and administrative services by implementing the To-Be Model*
Transfers occur within Facilities/Logistics and Information Technology
Calculations assume current workload and exclude effort for transition costs

The following table, Exhibit 13-6, summarizes all the transition costs associated with the recommendations, after accounting for more than $22.1 million in both one-time and recurring transition costs. The transition costs shown below (see 'One-time and recurring costs' column) are shown by cost categories and represent a three-year total. Detailed recommendation-specific cost estimates, including the transition activities, are included in Section 13-2.

Exhibit 13-6: Transition Cost Summary Resulting from Recommendations Over Three Years

	Phase I	Phase II	Phase III	Total
Studies and Analysis	$ 3,417,293	$ 7,234,757	$ 2,121,450	$ 12,773,500
Program Management (includes 7 Govt / 1 Contractor FTEs)	$ 617,293	$ 1,204,157	$ 1,821,450	**$ 3,642,900**
Competitive Sourcing Assessment	$ -	$ 105,600	$ -	**$ 105,600**
Communications	$ 100,000	$ 200,000	$ 300,000	**$ 600,000**
Policies and Procedures Development	$ 50,000	$ 50,000	$ -	**$ 100,000**
Organizational Analysis and Redesign	$ 1,375,000	$ 2,025,000	$ -	**$ 3,400,000**
Process Analysis and Design	$ 1,175,000	$ 2,700,000	$ -	**$ 3,875,000**
IT Planning and Analysis	$ 100,000	$ 950,000	$ -	**$ 1,050,000**
IT Costs	$ -	$ 1,425,000	$ 1,975,000	$ 3,400,000
IT Hardware and Software (One-Time)	$ -	$ 850,000	$ 900,000	**$ 1,750,000**
IT Implementation (One-Time)	$ -	$ 575,000	$ 1,075,000	**$ 1,650,000**
Other Costs	$ 25,000	$ 360,000	$ 465,000	$ 850,000
Training Development	$ -	$ 50,000	$ -	**$ 50,000**
Training (Recurring)	$ -	$ 200,000	$ 300,000	**$ 500,000**
Travel (Recurring)	$ 25,000	$ 110,000	$ 165,000	**$ 300,000**
Staff-Related Costs	$ -	$ 3,057,742	$ 2,045,200	$ 5,102,941
Downsizing	$ -	$ 2,120,804	$ 1,385,306	**$ 3,506,110**
Restaffing (Relocations/Hires)	$ -	$ 936,938	$ 659,894	**$ 1,596,832**
Total	**$ 3,442,293**	**$ 12,077,499**	**$ 6,606,650**	**$ 22,126,441**

Note: Actual dollars

Exhibit 13-7 presents the transition costs by function, and describes only those transition costs categorized as "Studies and Analysis". These transition activities (i.e., organizational design and analysis, IT planning and analysis, etc.) are more likely to be performed by contractor support and thus were presented separately.

Exhibit 13-7: Studies and Analysis Transition Costs by Function

Studies and Analysis by Function	Phase I	Phase II	Phase III	Total
Global	$ 1,367,293	$ 1,404,157	$ 2,121,450	$ 4,892,900
Program Management (includes 7 Govt / 1 Contractor FTEs)	$ 617,293	$ 1,204,157	$ 1,821,450	**$ 3,642,900**
Communications	$ 100,000	$ 200,000	$ 300,000	**$ 600,000**
Organizational Analysis and Design	$ 500,000	$ -	$ -	**$ 500,000**
Process Analysis and Design	$ 150,000	$ -	$ -	**$ 150,000**
Finance Services	$ 425,000	$ 725,000	$ -	$ 1,150,000
Organizational Analysis and Design	$ 150,000	$ 100,000	$ -	**$ 250,000**
Process Analysis and Design	$ 275,000	$ 325,000	$ -	**$ 600,000**
IT Planning and Analysis	$ -	$ 300,000	$ -	**$ 300,000**
Budget Services	$ 125,000	$ 275,000	$ -	$ 400,000
Process Analysis and Design	$ 125,000	$ 275,000	$ -	**$ 400,000**
Acquisition Services	$ 100,000	$ 650,000	$ -	$ 750,000
Organizational Analysis and Design	$ 100,000	$ 150,000	$ -	**$ 250,000**
Process Analysis and Design	$ -	$ 500,000	$ -	**$ 500,000**
Grants Management	$ 200,000	$ 425,000	$ -	$ 625,000
Process Analysis and Design	$ 200,000	$ 425,000	$ -	**$ 625,000**
Workforce Management	$ 275,000	$ 1,025,000	$ -	$ 1,300,000
Organizational Analysis and Design	$ 175,000	$ 575,000	$ -	**$ 750,000**
Process Analysis and Design	$ 100,000	$ 350,000	$ -	**$ 450,000**
IT Planning and Analysis	$ -	$ 100,000	$ -	**$ 100,000**
Facilities and Logistics	$ 275,000	$ 1,030,600	$ -	$ 1,305,600
Competitive Sourcing Assessment	$ -	$ 105,600	$ -	**$ 105,600**
Policy and Procedures Development	$ -	$ 50,000	$ -	**$ 50,000**
Organizational Analysis and Design	$ 175,000	$ 525,000	$ -	**$ 700,000**
Process Analysis and Design	$ 50,000	$ 100,000	$ -	**$ 150,000**
IT Planning and Analysis	$ 50,000	$ 250,000	$ -	**$ 300,000**
Information Technology (IT) Services	$ 450,000	$ 1,350,000	$ -	$ 1,800,000
Policy and Procedures Development	$ 50,000	$ -	$ -	**$ 50,000**
Organizational Analysis and Design	$ 225,000	$ 575,000	$ -	**$ 800,000**
Process Analysis and Design	$ 175,000	$ 525,000	$ -	**$ 700,000**
IT Planning and Analysis	$ -	$ 250,000	$ -	**$ 250,000**
Environmental Compliance and Health & Safety	$ 100,000	$ 150,000	$ -	$ 250,000
Organizational Analysis and Design	$ 50,000	$ 100,000	$ -	**$ 150,000**
IT Planning and Analysis	$ 50,000	$ 50,000	$ -	**$ 100,000**
Other	$ 100,000	$ 200,000	$ -	$ 300,000
Process Analysis and Design	$ 100,000	$ 200,000	$ -	**$ 300,000**
Total:	**$ 3,417,293**	**$ 7,234,757**	**$ 2,121,450**	**$ 12,773,500**

Exhibit 13-8 represents those staff transition costs associated with downsizing or restaffing (e.g., relocations, hires, etc.). The costs for downsizing total $3.5 million and restaffing costs total $1.6 million across all three phases. Sixty-one percent of the staffing changes would occur toward the end of Phase II, and thirty-nine percent occurring throughout Phase III as the ASCs are consolidated and the To-Be organization is implemented.

Exhibit 13-8: Staff Transition Costs

	Phase I		Phase II		Phase III		Total	
	Downsizing	Restaffing	Downsizing	Restaffing	Downsizing	Restaffing	Downsizing	Restaffing
Acquisition	$ -	$ -	$ 286	$ 143	$ 286	$ 178	$ 571	$ 321
Grants	$ -	$ -	$ 14	$ 12	$ -	$ -	$ 14	$ 12
Finance	$ -	$ -	$ 371	$ 154	$ 404	$ 181	$ 775	$ 335
Budget	$ -	$ -	$ -	$ 24	$ -	$ -	$ -	$ 24
Workforce Mgmt	$ -	$ -	$ 234	$ 178	$ 363	$ 289	$ 597	$ 467
IT	$ -	$ -	$ 229	$ 24	$ 186	$ -	$ 414	$ 24
Env Compl	$ -	$ -	$ 71	$ 59	$ -	$ -	$ 71	$ 59
Facilities	$ -	$ -	$ 544	$ 343	$ 147	$ -	$ 691	$ 343
Global	$ -	$ -	$ 371	$ -	$ -	$ 12	$ 371	$ 12
Other	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ 2,121	$ 937	$ 1,385	$ 660	$ 3,506	$ 1,597

Exhibit 13-9 below depicts the cash flow over three years by phase. The cumulative savings is based on the gross cost differential before transfers, which totals $52.5M (FY04 constant-year dollars). The break-even point is achieved at the end of Phase 2.

Exhibit 13-9: Cash Flow over Three Years by Phase

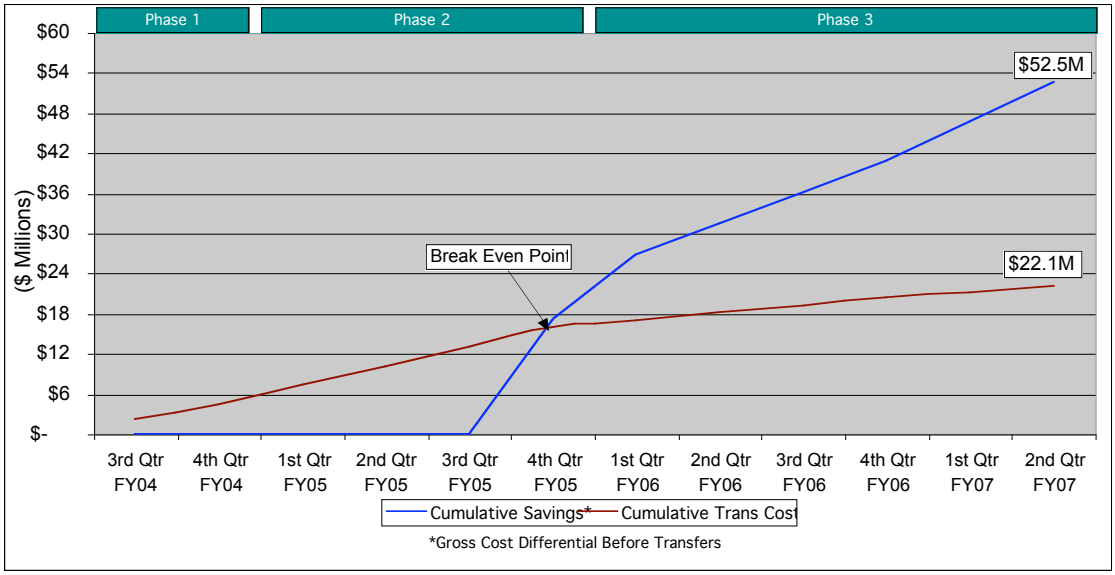
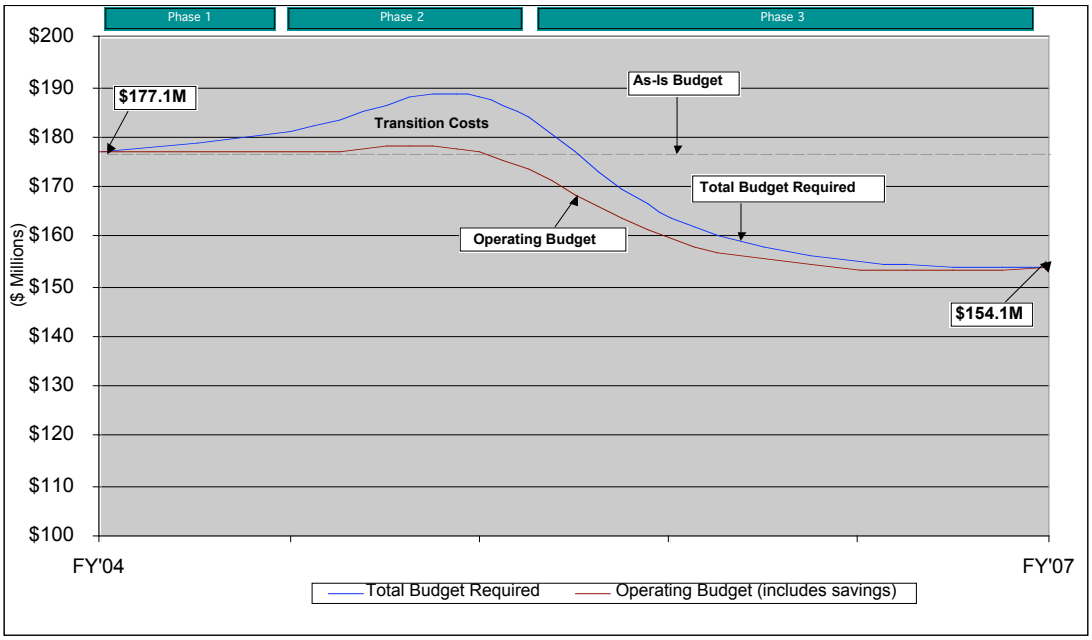


Exhibit 13-10 below depicts the projected budget requirements for Finance and Administrative Services functions during the transition period, assuming current workloads. This bottom line is the NFA Operating Budget, starting at $177M minus the estimated savings per year. The top curve shows the adjusted Operating Budget plus the estimated transition costs per year. This top line represents the total funds NFA will need per year to reach the new To-Be model. Therefore, the area between the two curves shows estimated transition costs.

Exhibit 13-10: Operating Budget over Three Years by Phase



13.4 RISK MANAGEMENT

As is most often the case, in order to achieve the benefits of change, the organization must be willing to accept some risks. There is inherent risk in implementing any reorganization program, however, not all risk is intolerable. Proactively identifying potential risks at the outset of the transition and continuing to monitor and update them throughout is a change management best practice.

While risk mitigation planning will ultimately fall under the purview of the program management office, all leadership and staff associated with the transition effort should work to identify and mitigate potential risks as necessary. For the purposes of transition planning, this section identifies and addresses overarching risks that could affect one or more functional areas as well as any risks associated with the recommended service delivery model.

Exhibit 13-11 identifies potential risks to the program, their relative impact and probability of occurrence, and corresponding mitigation strategies, the basis of which comes from Booz Allen's experience assisting other Federal government agencies implement transformation initiatives of similar size and scope.

Exhibit 13-11: Program-Wide Transition Risks and Mitigation Strategies

Potential Risk	Impact	Probability	Mitigation Strategies
Customer Risks			
• Level of service declines or does not improve	4	2	• Implement a periodic performance review system which identified declines in customer service and provides a means to reset strategy as needed
Employee Risks			
• Pushback / resistance to change	2	4	• Implement a comprehensive change management strategy and program • Hire for additional skills and/or implement training program for new requirements
• Skills not resident	2	2	
Other Stakeholder Risks			
• No buy-in from stakeholder organizations	2	2	• Develop communications strategy to educate and inform stakeholders • Manage expectations through communications strategy, develop implementation timeline that provides steady stream of accomplishments • Monitor stakeholder perspectives to anticipate change
• Impatience, seeking quick results	2	0	
• Changes in policy/laws change operating environment	2	0	
Financial Risks			
• Funding unavailable	4	2	• Develop budget justifications that are strong and well-supported • Manage expectations by conservatively estimating cost savings • Develop integrated strategic planning and budgeting process
• Financial benefits not realized	4	0	
• Funding improperly applied (i.e., wrong priorities)	2	1	
Technology Risks			
• Inability to influence technology (i.e., DOC owns system)	2	2	• Work through existing councils and committees to influence decisions made at the DOC level

Potential Risk	Impact	Probability	Mitigation Strategies
• Poor functionality, not tied to process	4	2	• Perform BPR activities before systems development activities
• Implementation poorly executed	4	2	
Management Risks			
• Managers unable to manage implementation and operations	4	2	• Hold strategy owners and supporting organizations accountable for implementation • Support the program with sufficient functional expertise, funding, and mgmt. oversight
• Plan is never implemented	4	2	

0 *Low* 2 *Medium* 4 *High*

13.5 PROGRAM MANAGEMENT

Change is difficult to implement, especially when it entails large-scale reengineering of organizations and/or processes that disrupt the status quo, as NOAA is considering. It is normal to receive resistance to change because those involved are uncertain about the future, regardless of whether they perceive the change as positive or negative. In addition, the coordination of the change process itself is difficult, often involving the movement of dollars, people, equipment, and in some cases, entire divisions.

In an effort to proactively manage this change effort, Booz Allen has been careful to identify the critical success factors and potential risks associated with the transition program. Many of these can and will be addressed with a strong program management office (PMO) and supporting infrastructure. Once this infrastructure is in place, the PMO will be able to identify and deploy resources to begin implementation, begin executing a communications strategy to build awareness and understanding, and monitor and report upon progress.

13.5.1 Establish Program Management Office and Infrastructure

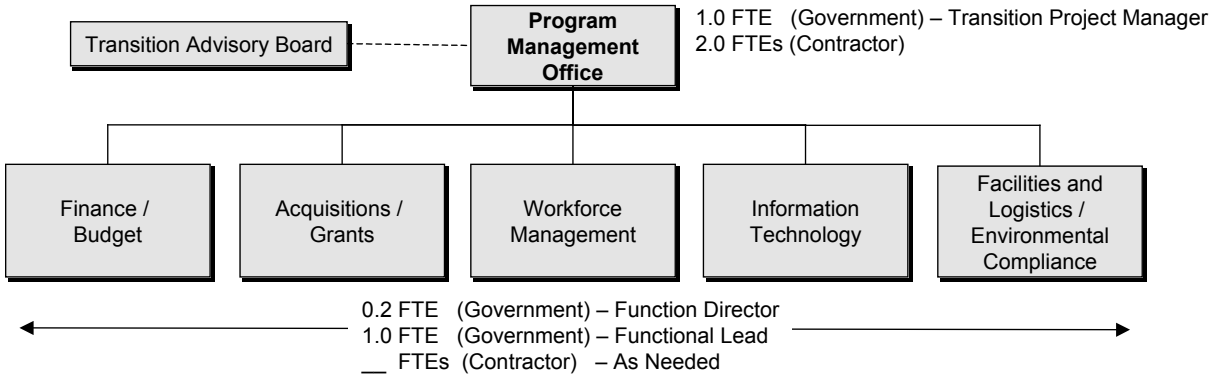
The first step to ensuring effective coordination of all the various elements to this change effort is to design and implement a Program Management Office (PMO) and supporting infrastructure. The PMO will be responsible for the leadership and oversight of daily operations, including:

- Working with NOAA senior managers to establish transition objectives and priorities
- Developing a strategy to measure achievement of objectives and ensuring accountability for these objectives
- Identifying transition activities and assisting each function create and manage detailed implementation plans
- Securing and managing the necessary transition resources, including both internal and contractor staff
- Monitoring and reporting on transition progress, issues, and risks

- Developing and delivering an effective change management and communications strategy for both internal and external stakeholders

Booz Allen recommends that a full time NOAA staff member be appointed as the Transition Project Manager, with full accountability for managing transition activities. To ensure for a timely build-up of the PMO and the supporting infrastructure, it is recommended that this manager be named as soon as NOAA senior management has made the key decisions required to move forward.

Exhibit 13-12: Organization and Staffing of the Program Management Office



Supporting the Project Manager and leading the implementation of the recommendations within each function, will be the Function Director and a Function Lead. The Director and Function Leads need to be involved, to the extent possible, in reviewing the recommendations, identifying detailed implementation plans, and guiding the implementation of each of the recommendations identified. While a high-level timeline has already been identified in Gantt chart format, it is expected that the government leadership of each function review and revise this timeline as necessary to accomplish the transition. Further, the PMO and the function leads are expected to collaborate in determining the appropriate success criteria for each of the recommendations (e.g., increases in process efficiency, increases in customer satisfaction, etc.) as well as for the transition program as a whole.

Once the detailed implementations have been developed, the Function Lead will be responsible for establishing and managing the function-specific 'tiger' team through implementation. The tiger team will consist of a mix of part-time government subject matter experts and contractors (as necessary) and will be responsible for ensuring the successful implementation of each of the recommendations. While the functional tiger teams will have autonomy to prioritize and plan the implementation of the recommendations, they must work side-by-side with the PMO to ensure coordination of the overall program implementation and that the overall program goals are met.

Another key part of the supporting program management infrastructure will be a Transition Advisory Committee that will meet on a monthly basis. This committee,

consisting of senior NOAA and DOC management, will oversee the overall implementation program. Their responsibilities will include ensuring adequate resources, monitoring progress towards program milestones, resolving any transition-related issues, and building clear lines of communication among the organization.

13.5.2 Identify and Deploy Resources

After the PMO has established the transition management infrastructure, resources must be identified and deployed to support the program. We recommend in the costing plan that one senior government FTE be identified to manage the PMO and work with contractor support, NOAA leadership, and the functional tiger teams that support the implementation. Additional government resources will be needed to form and manage the functional tiger teams. These resources will not need to be fully dedicated to the PMO or to the functional tiger teams, but are envisioned to be used more for occasional interviews, focus groups, document reviews, etc. Using resources from throughout the organization (even if on an as needed basis only) to lead this change will help build buy-in throughout the organization and ensure that the transition is viewed as a collaborative effort with all levels of staff working together to achieve success.

Altogether, the PMO will likely include 7 government FTEs. Given the operational demands on current staff and the nature of the transition activities, it is likely that contractors will play a significant role in the management of the tiger teams as well as the implementation of many of the recommendations (e.g., process analysis and redesign, IT analysis, etc.).

13.5.3 Execute Communication Strategy

Developing and implementing an effective communication strategy is critical to the successful transition to the recommended service delivery model. At its core, the communication strategy should be an ongoing framework of two-way communications and statements of support from senior executives that reinforce the implementation of the new organizational structure. The communications member of the PMO will conduct a stakeholder and customer analysis to identification the key stakeholders, both internal (i.e., employees) and external (i.e., customers, DOC, OMB, Congress, etc.), and their interests in the transition process.

This analysis will provide the PMO with the basis for the communication strategy and delivery plan. In addition to other stakeholder groups identified, employees and customers will be targeted. Employees must understand the reasons underlying the transition to a new organization and their role in the transition activities. In addition to employees, NOAA customers also need to recognize and understand their role in the transition, if any. Their expectations during service adjustments or process changes must be addressed proactively and timely responses to their inquiries must be achieved in order to maintain customer satisfaction level.

13.5.4 Monitor and Report Progress

A reporting framework will be created to include key stakeholders such as NOAA leadership, DOC, and any other groups identified by the PMO. The necessary reporting structure, frequency, method, and content will be developed by the PMO but will likely include: monthly program status reports by function, by location, with cost and activity timeline and progress information for NOAA finance and administrative services leadership and functional managers. The reporting framework will also include monthly meeting with the Transition Advisory Board and quarterly executive briefings targeted to DOC leadership. Project plans and budgets will also be tracked and updated as part of the reporting process.

14. CONCLUSION

NOAA's finance and administrative services organization faces many challenges. In undertaking the present study, it has demonstrated that it is open to the consideration of new ideas and new approaches to serving its customers. The new Concept of Operations provided here represents a substantial departure from NOAA's current approach to doing business. This new approach supports a more streamlined organization that recognizes significant cost savings and organizational efficiencies. The challenge in moving to a new performance model is great; we believe that the rewards that would accompany that change are also substantial.

APPENDIX A: COST AND SAVINGS ASSUMPTIONS

This is a high level study and the estimates of costs and savings are intended to provide a rough order of magnitude projection of the impact of the collective implementation of the recommendations. It is not the intent of this deliverable to provide detailed pricing and the estimates are not intended to comprise a proposal or be used as inputs for a budget document, such as an exhibit 300. Further, many of the recommendations are inter-dependent. While we have attempted to avoid any "double counting" of benefits from implementation of our recommendations, it is not possible within a study with such a broad scope to ensure that all interdependencies are fully taken into account.

The benefits identified here are expressed in monetary terms. There are also benefits to the organization that cannot be expressed in these terms. These benefits could include improvements in the reputation of the organization with its customers and stakeholders, the development of a "high performance" culture that celebrates a new set of values, and enhancement of job opportunities for staff that result in a lower turnover rate. In addition, the synergies among the recommendations and the economies of scale that could result from their collective implementation are not easily quantifiable and are not included. For purposes of cost estimation, the recommendations were not viewed as individual items, but rather as parts of an integrated set of activities that support a larger strategic framework. In a sense, we are suggesting that the value of the entirety of the recommendations is greater than the sum of the individual recommendations. During cost estimation, it was assumed that all of the recommendations would be accepted. Therefore, the consideration of the true value of the recommendations should reflect a balance between both financial and non-financial perspectives, as well as an appreciation of the inter-relationships among the recommendations.

The As-Is organizational staffing model described in this deliverable is the same as that in Workload Analysis Report. Any savings shown are savings against that baseline. Any exceptions to this rule are specifically noted.

Other assumptions include:

- All years referred to in this document are federal fiscal years, unless otherwise noted;
- Detail in this document may not add to totals due to rounding; and
- In all of the figures, the dollar amounts are in thousands unless otherwise stated

Labor

The assumptions used in calculating costs and savings for labor are contained in the following Exhibit A-1. For purposes of calculating costs and savings, Booz Allen used an average salary for each functional area and included benefits by adding a standard rate of 27% to the salary amounts. For example, if an employee is paid $50,000 per year,

then, on average, it costs the government $63,500 to pay for the employee's salary and benefits.

Since the finance and administrative organization is a service provider, the savings resulting from the recommendations are primarily labor-related. However, the savings also contain some non-labor related savings due to overhead-related savings. As a result, reduced overhead or general and administrative costs provide non-labor savings.

Government labor costs are included as costs of implementation. These are represented in the Program Management Office costs based on 7 FTEs over the 3-year period.

Exhibit A-1: Labor Related Assumptions

Description			Costs	%	Source
1. Government FTE Salary		Per FTE	variable		The average government labor cost baseline was derived from the Workload Analysis Report and applied by Function or Service. In some instances, revisions were made to both the As-Is and To-Be to more accurately reflect salaries of functional staff.
2. Government FTE Salary with benefits				1.27	NOAA source. Used to make salary loaded with benefits only.
3. Contractor FTE Salary		Per FTE	variable		The average contractor labor cost baseline was derived from the Workload Analysis Report and applied by Function or Service. In some instances, revisions were made to both the As-Is and To-Be to more accurately reflect contractor salaries within a function.
4. Contractor Salary with benefits and general and administrative costs				1	It is assumed contractors load/burden their own rates.
5. Downsizing	Weighted average	Per FTE	$ 14,282		Percentages indicate what portion of those affected by downsizing will result in various cost items.
	- Staff reduction:	Per FTE	$ 37,167	20%	Dollar amount: GAO Federal Downsizing Report; Percentage: DOD COBRA (Cost-of Base Realignment Actions) data
	- Buyout/Severance:	Per FTE	$ 43,779	5%	Dollar amount: Voluntary resignation with buy-out. GAO Federal Downsizing Report; Percentage: DOD COBRA
	- Retirement:	Per FTE	$ 31,061	15%	Dollar amount: GAO Federal Downsizing Report; Percentage: DOD COBRA
	- Attrition:	Per FTE	$ -	60%	Percentage: DOD COBRA
6. Restaffing	Weighted average	Per FTE	$ 11,875		Percentages indicate what portion of those affected by restaffing will result in various cost items.
	- Relocation/Permanent Change of Station (PCS):	Per FTE	$ 16,250	30%	Dollar amount: OPM; Percentage: DOD COBRA
	- Recruit new hires:	Per FTE	$ 10,000	70%	Percentage: DOD COBRA

Notes: Actual costs, dollars not in thousands

Non-Labor

The assumptions used in calculating costs and savings for non-labor items are contained in the following Exhibit A-2. These are intended to provide a rough order of magnitude estimate for the costs of activities associated with implementing recommendations. The costs per location for the overhead accounts were provided by NOAA. The variable overhead costs are assumed to fluctuate based on staffing levels such as transportation subsidy, communications, etc. The fixed overhead expenses were based on specific contracts that were in place within a service. It was assumed that some fixed expenses could be removed if the support center was closing or that it could be renegotiated, such as rent.

Exhibit A-2: Non-Labor Related Assumptions*

Transition Activities and Cost Items	Description	Level of Effort / Unit of Measure	Costs
1. Organizational Analysis and Redesign	Organizational analysis and redesign (structure, roles and responsibilities, etc.) as well as elements of process analysis and redesign, policy and procedures development, and training development/training	Low Medium High	$ 150,000 $ 250,000 $ 500,000
2. Process Analysis and Redesign	Process analysis and redesign as well as elements of policy and procedures development and training	Low Medium High	$ 150,000 $ 250,000 $ 500,000
3. Policy and Procedures Development	Revision of policy and procedures	Low Medium High	$ 50,000 $ 100,000 $ 200,000
4. Training Development (if not part of 1 or 2)	Development of training programs		$ 50,000
5. Training (if not part of 1 or 2)	Provision of training	Per FTE	$ 2,000
6. IT Planning and Analysis	Includes alternatives analysis, requirements analysis, or miscellaneous studies relating to IT systems	Low Medium High	$ 100,000 $ 250,000 $ 500,000
7. IT Implementation	Includes the design, development, testing, implementation, and training of IT systems	Low Medium High	$ 100,000 $ 250,000 $ 500,000
8. IT Hardware/Software			Variable
9. Competitive Sourcing Assessment	Simplified Non-Simplified	Per FTE Per FTE	$ 3,000 $ 5,000
10. Communications			$ 200,000
11. Program Management			$ 200,000

**Actual costs, dollars not in thousands*

Transfers

Recommendations were presented that would transfer NOAA financial and administrative service FTEs (e.g., staff at the MASC Library) to other organizations within the line offices of NOAA or DOC. In turn, these transfers would decrease the gross savings calculated for NOAA's finance and administrative organization. We provided summary figures to reflect this distinction. All transfers were assumed to occur in phase two.

Timing

It was assumed that investment costs for each recommendation would begin prior to savings.

It was assumed that the ASCs would be closed between the end of the phase two and the beginning of phase three. This includes the ASCs in Norfolk, Kansas City, and Seattle. As described in the preceding chapters, the Boulder location would continue to provide a working location for some staff, and the Seattle location would provide a working location for staff in the Western Operations.

The break-even point describes the time required for the cumulative value of savings to be equal to the cumulative value of the investment or transition costs.

Transition phases are assumed to happen at the following dates, which overlap fiscal years. In order to use federal government-wide guidance, amounts associated with phases were converted to fiscal years. The transition phases are depicted in Exhibit A-3.

Exhibit A-3: Transition Phases

Phase	Duration	Dates
I	6 months	3/1/04-8/31/04
II	12 months	9/1/04-8/31/05
III	18 months	9/1/05-2/28/07
Total	36 months	3/1/04-2/28/07

APPENDIX B: LIST OF ACRONYMS

A&E	Architectural and Engineering
ABC	Activity Based Costing
ADR	Alternative Dispute Resolution
AOD	Accounting Operations Division, Finance Office
ASAP	Automated Standard Application for Payments
ASC	Administrative Support Center
BEA	Bureau of Economic Analysis
BIS	Bureau of Industry and Security, Department of Commerce
BM&S	Buildings Management and Services
BP1	Benchmark Partner 1
BP2	Benchmark Partner 2
CAMS	Commerce Administrative Management System
CAO	Chief Administrative Office(r)
CASC	Central Administrative Support Center
CIO	Chief Information Officer
CMM	Capability Maturity Model
COOL	Commerce On-Line
COOP	Continuity of Operations Plan
COTS	Commercial Off the Shelf
CPO	Construction Projects Office
CRM	Customer Relationship Model
CWIP	Construction Works in Process
D&C	Design and Construction
DAR	Designated Agency Representative
DC Metro	Washington, DC Metropolitan area
DOC	Department of Commerce
DOI	Department of Interior
DOJ	Department of Justice
EA	Enterprise Architecture
EASC	Eastern Administrative Support Center
EC	Environmental Compliance
ECHSSO	Environmental Compliance, Health, Safety, and Security Office
ECSH	Environmental Compliance Safety and Health
ED	Department of Education
EEO	Equal Employment Office
EEOC	Equal Employment Opportunity Commission

EPA	Environmental Protection Agency
ER	Employee Relations
FAIR	Federal Activities Inventory Reform
FAR	Federal Acquisitions Regulations
FARA	Federal Acquisition Reform Act
FASA	Federal Acquisition Streamlining Act
FDA	Food and Drug Administration
Fed RPM	Federal Real Property Management
FEDEX	Federal Express
FEDSTRIP	Federal Standard Requisitioning and Issue Procedures
FIMA	Finance Information Management System
FLD	Facilities and Logistics Division
FMD	Financial Management Division
FMRS	Facilities Maintenance Repair and Safety
FTE	Full Time Equivalent
FTS	Federal Telephone Service
G&A	General & Administrative
GOTS	Government Off the Shelf
GPO	Government Printing Office
GSA	General Services Administration
HQ	Headquarters
HR	Human Resources
HRMO	Human Resource Management Office
HVAC	Heating Ventilation and Air Conditioning
ILL	Inter-Library Loan
IPAC	Intra-Governmental Payment and Collection System
IRD	Information Resources Division
IRS	Internal Revenue Service
IT	Information Technology
ITA	International Trade Administration
LR	Labor Relations
MASC	Mountain Administrative Support Center
MILSTRIP	Military Standard Requisitioning and Issue Procedures
MOU	Memoranda of Understanding
NBC	National Business Center
NCASC	National Capital Administrative Support Center
NCR	National Capital Region
NDBC	National Data Buoy Center

NECSAS	NOAA Environmental Compliance and Safety Assessment System
NEPA	National Environmental Policy Act
NESDIS	National Environmental Satellite, Data, and Information Service
NFA	NOAA Finance and Administration
NFT	Not Formally Tracked
NGS	NOAA Grants System
NIH	National Institutes of Health
NIRMO	NOAA Information Resource Office
NIST	National Institute of Standards and Technology
NLSC	National Logistics Support Center
NMFS	National Marine Fisheries Service
NOAA	National Oceanographic and Atmospheric Administration
NODC	National Oceanographic Data Center
NOS	National Ocean Service
NPV	Net Present Value
NRC	National Reconditioning Center
NSF	National Science Foundation
NTIA	National Telecommunications and Information Administration
NWS	National Weather Service
OAR	Office of Atmospheric Research
OAR	Office of Oceanic and Atmospheric Research
OCR	Office of Civil Rights
ODP	Office for Domestic Preparedness
OFA	Office of Finance and Administration
OMAO	Office of Marine and Aviation Operations
OMB	Office of Management and Budget
OSH	Occupational Safety and Health
P&P	Printing and Publications
PD	Position Description
PDAM	Project Development and Management
PPM	Personal Property Management
PRM	Performance Reference Model
PTO	Patent and Trademark Office
RECO	Regional Environmental Compliance Officer
RMS	Regional Safety Manager
ROI	Return On Investment
RPAM	Real Property Acquisition and Management

S&H/S	Shipping and Handling/Storage
SA	Simplified Acquisitions
SDLC	Software Development Lifecycle
SF	Standard Form
SLA	Service Level Agreement
SSA	Social Security Administration
SSN	Social Security Number
T&A	Time & Attendance
TRM	Technical Reference Model
USCG	US Coast Guard
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WASC	Western Administrative Support Center
WBTS	WASC Budget Tracking System
WFM	Workforce Management
WHAM	Web-Hosted Assessment Management

APPENDIX C: LIST OF INTERVIEWS CONDUCTED

Booz Allen conducted more than 280 interviews of staff at NOAA, Department of Commerce, and the Office of Management and Budget. In addition, over 200 customers were queried via telephone and email interviews as to their satisfaction with NOAA administrative services. The following Exhibit lists the key individuals interviewed by the Booz Allen team during the course of this study.

Interviews Completed			
Interviewee	**Position**	**Date**	**Interviewed By**
Alan Neuschatz	NOS CFO	9/22/03	Naomi Leventhal & John McWilliam
Lan Bui	Chief, Budget Execution and Operation Division, OCFO	9/23/03	John McWilliam & Bob Brown
Jill Meldon	Chief, Budget Formulation and Analysis Division, OCFO	9/23/03	John McWilliam & Bob Brown
Helen Hurcombe	Director, Acquisitions and Grants Office	9/23/03	Naomi Leventhal & Robert Glenn
Sam Debow	Office of the Deputy Under Secretary	9/24/03	Naomi Leventhal & Robert Glenn
Ted David	Acting Chief Financial Officer	9/24/03	Naomi Leventhal & Robert Glenn
Sarah Maloney	Director, Information Systems Management Office	9/24/03	Tanya Hilton & Paul Tartaglione
R.J. Dominic	Director, Finance Office	9/24/03	John McWilliam & Bob Brown
Wyevetra Jordan	Chief, Budget Outreach and Communications Division, OCFO	9/25/03	John McWilliam & Bob Brown
Bill Broglie	Chief Administrative Officer	9/25/03	Naomi Leventhal & Robert Glenn
Sandi Walters	Chief, Business Management Fund Division, OCFO	9/25/03	Chris Kaldes
Barbara Marshall-Bailey	Chief, Diversity Program Division	9/25/03	Wilbert Dawkins & Rachel Cohen
Dick Bennet	Chief, NESDIS Acquisition Management Division	9/25/03	Bob Rabinowitz
Bob Ransom	Chief, NOS/NMFS/OAR Acquisition Management Division	9/29/03	Bob Rabinowitz
Zane Schauer	Director, Workforce Management Division	9/30/03	Wilbert Dawkins & Rachel Cohen
Monica Matthews	Deputy Director, Workforce Management Division	9/30/03	Wilbert Dawkins & Rachel Cohen
Al Corea	Director, Civil Rights Office	9/30/03	Wilbert Dawkins & Rachel Cohen
Bob Taylor	Deputy Assistant Administrator, NMAO	9/30/03	John McWilliam & Chris Kaldes
John Oliver	Deputy Assistant Administrator, NMFS	9/30/03	John McWilliam
Sharon Leigh	Chief, NWS Acquisition Management Division	10/1/03	Bob Rabinowitz
John Jones	Deputy Assistant Administrator,	10/1/03	Robert Glenn

Interviews Completed			
Interviewee	**Position**	**Date**	**Interviewed By**
	NWS		
Warren Hall	Chief Financial Officer, NESDIS	10/1/03	Robert Glenn
Tony Fleming	Director, Real Property Management Office	10/1/03	Francisco Acoba
John Shanahan	Office of the Chief Administrative Officer	10/1/03	Francisco Acoba & Mike Sexton
Joyce Wood	Director, Strategic Planning and Performance Management, PPI	10/1/03	Ron Lambo, Traci Callahan & Chris Kaldes
Susan Kennedy	Assistant, Strategic Planning and Performance Management, PPI	10/1/03	Ron Lambo, Traci Callahan & Chris Kaldes
Mary Glackin	Assistant Administrator, PPI	10/1/03	Ron Lambo, Traci Callahan & Chris Kaldes
Mike Nelson	Officer, Grants Management Division	10/2/03	Bob Rabinowitz
Louisa Koch	Deputy Assistant Administrator, OAR	10/2/03	Robert Glenn
Mark Brown	Chief Financial Officer, OAR	10/2/03	Robert Glenn
Dave Murdock	Director, Logistics Staff Office	10/2/03	Francisco Acoba & Mike Sexton
Larry Sparks	Chief, Administrative Systems Division	10/2/03	Kwansene Eversmann & Anika Ahmed
Trena Simon	Acting Chief, Systems Support Division	10/2/03	Kwansene Eversmann, Rick Schult & Anika Ahmed
Jack Kelly	Deputy Under Secretary	10/3/03	Naomi Leventhal & Robert Glenn
Roy Eckert	Chief, Facility Management Division	10/3/03	Francisco Acoba & Mike Sexton
Bonnie Morehouse	Director, Program Analysis and Evaluation	10/6/03	Ron Lambo & Chris Kaldes
Kevin Amos	Deputy Director, Program Analysis and Evaluation	10/6/03	Ron Lambo & Traci Callahan
Don Wynegar	Director, Environmental Compliance, Health, Safety and Security Office	10/7/03	Francisco Acoba & Mike Sexton
Gary Rice	Chief, External Customers Acquisition Management Division	10/7/03	Bob Rabinowitz
R.J. Dominic	Director, Finance Office	10/14/03	Bob Brown
Charles Kilgore	Chief, Accounting Operations Division	10/14/03	Bob Brown
Barbara Retzlaff	Director, Office of Budget, DOC	10/20/03	Robert Glenn
Sandi Walters	Chief, Business Management Fund Division, OCFO	10/21/03	Bob Brown & Tiffany Whitton
Jill Meldon	Chief, Budget Formulation and Analysis Division, OCFO	10/21/03	Bob Brown & Tiffany Whitton
John Phelan	Director, Office of Management Organization, DOC	10/22/03	Robert Glenn & Tanya Hilton
Rimas Liogys	Chief, Grants Management Division, Acquisitions and Grants Office	10/23/03	Bob Rabinowitz
Jim Taylor	Deputy CFO/Director, Office of Financial Management, DOC	10/28/03	Robert Glenn

Interviews Completed			
Interviewee	**Position**	**Date**	**Interviewed By**
Carl Staton	CIO (NOAA-wide)	11/5/03	Robert Glenn & Tanya Hilton
Gary Reisner	Chief Financial Officer, NMFS	11/6/03	Robert Glenn
Mike Sade	Director, Office of Acquisition Mgmt & Procurement Executive, DOC	11/10/03	Robert Glenn
Jamie Hawkins	Deputy Assistant Administrator, NOS	11/10/03	Robert Glenn
Denise Wells	Acting Director, Office of Administrative Services, DOC	11/12/03	Robert Glenn
Peter Maxey	Chief, Systems and Policy Division, DOC	11/12/03	Robert Glenn
Joe Smith	Acting Chief, Financial and Administrative Computing Division	11/12/03	Paul Tartaglione and Rick Schult
Don Spillman	Chief Financial Officer, NMAO	11/13/03	Robert Glenn
Otto Wolff	Chief Financial Officer and Assistant Secretary for Administration, DOC	11/17/03	Robert Glenn & Tanya Hilton
Doug Day	CFO, NIST	11/18/03	Robert Glenn
Conrad C. Lautenbacher	Under Secretary of Commerce, NOAA	11/20/03	Robert Glenn & Naomi Leventhal
Johnnie Frazier	Inspector General, DOC	11/24/03	Robert Glenn & Tanya Hilton
Tom Pyke	DOC CIO	11/24/03	Tanya Hilton & Robert Glenn
Bob Williams	National Marine Fisheries, National Facilities Officer	11/24/03	Francisco Acoba and Mike Sexton
Erin Wucthe	OMB staff	12/2/03	Robert Glenn & Neil Lobron
Emily Woglom	OMB staff	12/2/03	Robert Glenn & Neil Lobron
Kevin Linskey	Senate Majority Clerk	12/2/03	Received Email Response
Victoria Kruk and Helen Halloway	Administrative Management and Executive Secretariat	12/4/03	John McWilliam & Kim Vroom
Bill Broglie	Chief Administrative Officer	12/8/03	John McWilliam & Kim Vroom
Rob Swisher	IT Specialist, Policy Planning, CIO, NOAA	12/9/03	Paul Tartaglione
Steve Gallagher	Acting CFO, NWS	12/10/03	John McWilliam