



COMDTINST M7132.1D

8 FEB 2000

COMMANDANT INSTRUCTION M7132.1D

Subj: U. S. COAST GUARD FISCAL YEAR 2001 AGENCY CAPITAL PLAN

1. **PURPOSE.** To promulgate the Coast Guard's Agency Capital Plan for fiscal year 2001.
2. **ACTION.** Area and district commanders, commanders maintenance and logistics commands, commanding officers of headquarters units, assistant commandants, Chief Counsel and special staff divisions at headquarters shall ensure compliance with the provisions of this directive.
3. **DIRECTIVES AFFECTED.** COMDTINST 7132.1C is canceled.
4. **BACKGROUND.** The Coast Guard Agency Capital Plan (ACP) is prepared annually to document long term capital decisions and future capital asset funding requirements of the Coast Guard. The Government Management Reform Act, the Government Performance and Results Act, and the Clinger-Cohen Act, (among others) require all government agencies to develop more robust connections between the taxpayer investment in that agency and the public good outcomes enabled by that investment. Also, Executive Branch guidance on capital investment planning provided in OMB Circular A-11 provides additional requirements for more comprehensive capital planning. The FY2001 ACP reflects a continuing effort to more closely link agency capital planning to mission performance and agency outcomes, consistent with this legislation and guidance.
5. **DISCUSSION.** The ACP provides an overview of the capital planning process and key guiding principles and lays out the mission and goals of the service, broadly tying classes of assets to operational activities and the outcomes they produce. It also presents a baseline of current assets, examines the ability of the service's capital inventory to meet current and future operational requirements, and provides an overview of approved acquisitions. It examines affordability concerns, identifies budget constraints and strategies, and lays out a

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general plan for future investments and divestitures to ensure that the future capital base of the service will meet anticipated needs.

6. **PROCEDURE.** The FY2001 ACP consists of two chapters and four appendices. The chapters describe the Coast Guard's current state of capital planning as well as the emerging capital investment decision-making processes. Personnel associated with maintaining or acquiring capital assets should carefully review these chapters. The appendices reflect the results of the Coast Guard's existing capital management processes. The appendices describe:
  - a. the Coast Guard's current capital inventory (Appendix A);
  - b. current major acquisition projects (Appendix B);
  - c. a five year capital investment plan required by Public Law 106-69 and containing acquisition projects that have been fully developed and are seeking FY 2001 Acquisition, Construction and Improvements (AC&I) funding (Appendix C); and
  - d. the Long Range Resource Allocation Plan (LRRAP) that anticipates AC&I funding requirements beyond 2005, out to the year 2021 (Appendix D).
  
7. **CONCEPT.** The concepts embodied in the FY 2000 ACP represented a significant step forward in Coast Guard capital planning. The 2001 ACP continues that direction, but is still a work-in-progress. Several challenges remain to bring these concepts to full application in the management of our capital assets.
  - a. The processes for making capital investment decisions in both information technology and shore facilities are under development and should provide a comprehensive perspective across the entire C4ISR or shore/support capital portfolios.
  - b. The useful service life and asset condition information currently contained in the inventory pages is inadequate for making sound capital management or investment decisions. Throughout the life of every asset, managers are required to make many decisions that require precise performance, condition and service life information. The results of periodic condition inspections and service life estimates must be captured and presented in the inventory pages.
  - c. At this stage the inventory pages also lack the fully developed total ownership cost data required by managers to make sound capital portfolio management decisions. These data must include the total annual operating and maintenance costs (AFC-30, -4X, and -01 costs, as well as any AC&I costs). Developing service life and total ownership cost data is not easy, but it is essential as a common basis for making investment decisions. This information will be developed in Appendix B of the directorates' business plans and through the Regional Strategic Assessment process. Commandant (G-CPP), in

consultation with Commandant (G-S, G-O and G-M), is responsible for refining the format of this appendix and the related inventory pages. Directorates must develop the information content in the course of their business planning.

8. COMMENTS. Comments for improvement of this ACP are encouraged and should be directed to Commandant (G-CPP), Office of Plans, Policy and Evaluation.



**T. W. JOSIAH  
CHIEF OF STAFF**

Encl: (1) Fiscal Year 2001 Agency Capital Plan

# EXECUTIVE SUMMARY

Consistent with the OMB Capital Programming Guide (Supplement to Part 3 of OMB Circular A-11) and 14 USC 663, the Agency Capital Plan is prepared annually to document long term agency capital decisions and the future capital asset funding requirements of the Coast Guard. It provides a brief overview of the capital planning process and key guiding principles and lays out the mission and goals of the service, broadly tying classes of assets to operational activities and the outcomes they produce. It also presents a baseline of current assets, examines the ability of the service's capital inventory to meet current and future operational requirements, and provides an overview of approved acquisitions. It examines affordability concerns, identifies budget constraints and strategies, and lays out a general plan for future investments and divestitures to ensure that the future capital base of the service will meet anticipated needs. Future versions of the ACP will incorporate comprehensive cost and performance information that, when compared to service life, performance and cost baselines, will enable managers to systematically forecast and plan for changes in the capital portfolio. When combined with other strategic-level planning tools, the ACP offers a comprehensive view of the cost, capability and performance of the Coast Guard's entire capital base and will guide both OE and AC&I investment decisions.

In this era of constrained federal budgets, the Coast Guard finds itself in a difficult capital management situation: the annual recapitalization costs of currently owned capital assets exceeds current out year budget estimates. It is imperative that we innovatively manage our capital resources in such a way as to be able to continue the high level of service the American public demands while finding ways to do it less expensively—i.e., improve our organizational return on the taxpayer investment.

This organizational imperative occurs at a time when the Coast Guard's deepwater surface fleet and aircraft are in urgent need of recapitalization. Funding available for this recapitalization and ongoing projects will be constrained by budget targets. This ACP examines these issues and proposes a funding strategy to address these concerns in a performance-based, fiscally prudent manner.

The Agency Capital Plan is organized into two chapters and four appendices that are consistent with the guidelines laid out in OMB's *Capital Programming Guide*, and which together reflect the logical progression of the capital management process in the Coast Guard.

- *Chapter 1* provides an overview of the Coast Guard's capital planning cycle from planning, through budgeting, procurement and management-in use to eventual divestiture. It also frames the capital planning process within the Coast Guard's strategic goals. This chapter introduces the Coast Guard's application of the concept of return on investment as the market-force "engine" for making sound investment decisions.
- *Chapter 2* lays out the Acquisition, Construction, and Improvement (AC&I) Appropriation issues that influence the "shape" of the Coast Guard's funding curve for capital asset management. In particular, it explores the Coast Guard's recapitalization dilemma in the face of smaller AC&I budgets. It continues with an explanation of capital management principles and strategies available to address this AC&I funding shortfall.

The appendices of this ACP are arguably the most significant part of the plan. While Chapters 1 and 2 describe how the Coast Guard manages its capital asset portfolio, the appendices reflect the results of that capital management process.

- *Appendix A* is a general overview of the Coast Guard's current capital asset portfolio. Assets are categorized as components of larger systems, based on mission requirements and the environment in which they operate. Considered together, the five portfolios of capital assets are an interconnected infrastructure system (i.e., a "system of systems") that are either employed to directly deliver public good outcomes or comprise the underlying logistics infrastructure.

Asset service life and operational employment concerns are discussed, gaps between capability requirements and current capabilities are identified, and future investment needs from a capability preservation perspective are addressed. Arranged as inventory sheets, each asset (or class of assets) is presented in a standard format that includes historical performance, mission contribution and cost information. Service life projections of each asset (or class of assets) are graphically summarized, providing a snapshot of the "health" of the Coast Guard's capital systems. Future versions of this appendix will contain life-cycle cost data as an informant for making capital asset decisions. Appendix A also provides the link to the Coast Guard's business and performance planning process through incorporation of capital asset information generated in annual Business Plans. Business Plan Appendix B's are revised annually and provide a comprehensive overview of every capital asset and the foundation for the ACP's Inventory Pages.

- *Appendix B* provides a summary of current capital acquisitions and other AC&I projects such as service life extensions or capital upgrades. This section discusses acquisitions currently underway and examines risk, cost, schedule and performance data, borrowing from documentation already required by the acquisition process.
- *Appendix C* reflects those AC&I projects that have already been proposed by the Investment Board and accepted by the Coast Guard Acquisition Review Council (CGARC) as viable capital acquisition projects, but that have not yet been funded through the budget process. In Appendix C the 2001 ACP also introduces the Coast Guard's Five Year Capital Investment Plan in compliance with the Conference Report on H.R. 2084, Department of Transportation and Related Agencies Appropriations Act, 2000 (September, 30 1999).
- *Appendix D* looks beyond the approved projects and the Five Year AC&I Budget of Appendix C to contemplate the notional, long-range recapitalization requirements (out to 20 or more years) as indicated by the current capital decision trigger points. This recapitalization forecast is constrained by mission performance requirements and a comprehensive set of assumptions, as well as incorporating the Principles of Budgeting for Capital Asset Acquisitions (found in OMB Circular A-11). It presents a cogent, fiscally prudent plan to manage the capability of the Coast Guard's capital assets to ensure sustained performance through the next quarter century. (NOTE that the LRRAP is a Coast Guard-DOT-OMB planning tool. It IS NOT releasable outside the executive branch until approved by OMB.)

The ACP marks a focused effort to comprehensively manage the Coast Guard's capital plant in a manner that maximizes its value to the American public at the least possible life cycle cost. Issues are continually raised during the development of each year's ACP which will be addressed in coming years, and together with additional executive and legislative guidance, will help to further our stewardship of public capital assets.

# GLOSSARY:

## PERFORMANCE, POLICY AND PROGRAM DEFINITIONS

**Business Plan:** An annual plan prepared by each Assistant Commandant that documents the strategies, measures, objectives, and required resources each Headquarters Directorate needs to implement the Coast Guard's mission, vision and strategic goals.

**Capability:** The outcome of the effort of the Coast Guard's logistics programs to meet the operational requirements of the Service's operational programs. Personnel, infrastructure, and maintenance are components of capability.

**Capital Assets:** Land, structures, equipment, and intellectual property (including software) that are used by the Federal Government and have an estimated useful life of two years or more. Capital assets exclude items acquired for resale in the ordinary course of operations or held for the purpose of physical consumption, such as operating materials and supplies. The cost of a capital asset is its full life-cycle costs, including all direct and indirect costs for planning, procurement (purchase price and all other costs incurred to bring it to a form and location suitable for its intended use), operations and maintenance, including service contracts, and disposal. Capital assets may or may not be capitalized (i.e., recorded on an organization's balance sheet) under Federal accounting standards. (From OMB Circular A-11)

**Coast Guard Performance Plan:** The annual Performance Plan is the translator between the annual budget request and the performance outcomes the Coast Guard seeks to achieve in a particular fiscal year. It highlights the linkage between budget resources, the mission activities funded by those resources, and the outcomes those activities produces, and details the Performance Goals, measures, external factors, strategies, resources etc. relating to organizational performance and aimed at fulfilling the Service's mandate and national interests.

**Effort:** Physical or mental energy applied to produce an outcome.

**Life-cycle Costs:** The costs associated with an asset over the length of its lifetime: including development, acquisition, operations, maintenance, and disposal.

**Logistics:** The collective set of activities which provide resources such as personnel, information, and material. Logistics takes appropriated dollars from Congress and converts those dollars into operational capabilities, such as personnel, platforms, and support.

**Outcome:** The intended result, effect or consequence of carrying out a program or activities.

**Performance Goal:** A target level of performance relative to a known baseline expressed as a tangible, measurable objective, against which actual achievement can be compared. May be expressed as a quantitative standard, value or rate.

**Policy:** Direction by the Commandant or other senior official to constrain and guide the accomplishment of a planned outcome within a specific time frame.

**Policy and Performance Director:** The Assistant Commandant at Headquarters responsible to the Commandant for:

1. Development and deployment of policy to ensure effective performance,
2. Agreed upon performance outcomes,
3. Subordinate operating and support programs.

**Policy and Performance Management:** Ongoing activities for which the Assistant Commandants are accountable to the Commandant. Policy and performance management is results-oriented and encompasses all aspects of a directorate's business(es) including policy development and deployment, management of an assigned program or aggregation of programs, cross organizational communication and integration at Headquarters and delivery of field requirements.

**Program:** A major ongoing Coast Guard endeavor which fulfills statutory or executive requirements and which is defined in terms of the principle activities required to achieve a significant outcome.

**Program Director:** The military or civilian official at Headquarters immediately responsible to the Commandant or an Assistant Commandant for the overall management of an approved Coast Guard program including the development of program goals and strategies.

**Program Manager:** The staff officer at Headquarters designated by and responsible to the Program Director for the detailed management of a Coast Guard program. Contrasted to high level performance and policy management, program management focuses on the execution of program goals and strategies, resource requirements, measurement and evaluation.

**Return on Investment (ROI):** The public good outcome yielded by an investment in capability; expressed in terms of a ratio of outcome(s) to investment(s); or value to cost. Despite the fact that public good outcomes do not easily lend themselves to quantifiable description, ROI can be maximized either by increasing value and holding costs constant or reducing them, or by holding outcomes (value) constant while decreasing costs. An understanding of this concept is essential to sound capital management.

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# CHAPTER 1 :

# THE BASIS FOR COAST GUARD CAPITAL ASSET PLANNING AND MANAGEMENT

"... strategy is manifested in a relatively few investment decisions, which are hard to reverse and which tend to define choices in other areas...."

Michael Porter, "Toward a Dynamic Theory of Strategy"

## Introduction

Capital investment and portfolio management are the primary mechanisms by which the Coast Guard equips itself to implement its long-term strategy. Where we choose to invest our limited resources is the most telling evidence of our organization's strategic intent and is a key enabler of mission performance. The Coast Guard's ability to safely accomplish its legal, historical and emerging mandates in future years is dependent upon the foresight and rigor that we apply to managing our capital portfolio today -- we must do it right.

The Coast Guard Agency Capital Plan (ACP) documents the current condition and application of our capital portfolio and projected levels of capital investment required to provide continued Coast Guard services to the American public. Most importantly, the ACP reflects a continuing effort to more closely link capital planning to mission performance and agency outcomes, consistent with the Government Performance and Results Act of 1993 and the Office of Management and Budget's *Capital Programming Guide* and Circular A-11.

## BACKGROUND

The Coast Guard owes much of its success to its people's ability to effectively employ capable platforms (i.e., boats, cutters and aircraft) to perform missions. Since the Revenue Marine was established in 1790, missions have been added, technology has evolved, and the contribution of other activities (regulation, prevention efforts, etc.) to service outcomes has changed. However, the fundamental nature of the Coast Guard as a military, multi-mission, maritime operating agency that relies on well-trained personnel using multi-mission capital assets has remained.

Prior to 1980, the annual capital plan was little more than a spreadsheet listing funding requirements. In 1980, Congress added the specific requirement for a cutter, aircraft and shore investment plan (14 USC 663). This required a slightly more systematic approach to documenting the need for funds for acquiring new assets or recapitalizing existing assets, but did not begin the process of planning integration. When the requirement for a Strategic Information Resource Management Plan (SIRMP) was added in 1990, the Coast Guard Capital Investment Plan (CIP) was developed to address all of these requirements in a single, comprehensive document. The CIP, for the first time, looked at the Coast Guard's asset portfolio from a comprehensive, long-term perspective. However, it still relied on an asset-based rather than capability-based perspective for identifying recapitalization requirements. The last major revision to the Coast Guard's CIP was in 1993, when the Long Range Resource Allocation Plan was added.

Since that time, additional Executive Branch and GAO guidance provided in OMB Circulars A-109, A-11, various GAO reports, and in the Department of Transportation's Major Acquisition Policy and Procedures Manual (MAPP) require systematic, comprehensive capital planning. The Government Management Reform

Act, the Government Performance and Results Act (GPRA), as well as the Clinger-Cohen and Chief Financial Officers' Acts require all government agencies to develop more robust connections between taxpayer investments (through agency budgets) and the public good outcomes enabled by that investment.

In February 1999, the Coast Guard's first Agency Capital Plan, developed in conformance with the OMB Capital Programming Guide, was submitted with the President's FY2000 budget request. It marked a milestone in how the Coast Guard plans for and manages its capital assets, taking a performance-based, life-cycle approach, focusing on capability rather than simply assuming one-for-one replacement. While it represented a major change in philosophy, the FY2000 ACP was only a first step in the right direction. Limitations in corporate financial information as well as asset condition and employment data limited the utility of Inventory Pages, which reflect the results of operational analysis and management-in-use, as decision making tools for construction of the Long Range Resource Allocation Plan (LRRAP). In addition, there were several key pieces of information lacking from pending major studies, and the results of the Deepwater project concept exploration phase were not yet available. The FY 2001 Coast Guard ACP is the second generation product of the planning effort begun in 1998, and reflects the Coast Guard's ongoing effort to incorporate these concepts into its capital planning process as well as outlining the next steps in the continued development of this process.

Figure 1-1, adapted from OMB's *Capital Programming Guide*, reflects the relationship of the phases and steps of a robust capital programming process. The basic premise is that there must be continuity and seamless integration of the various phases, all managed within the framework of strategic and performance planning, and tied to the annual budget process timeline. The illustration implies that all phases of the capital programming process are ongoing and synchronized with the agency's annual budget processes. It is this synchronization of planning, programming, budgeting, project planning, acquisition and management-in-use that allows agency managers to take a portfolio approach to managing both the assets and the capability they represent from an integrated, life-cycle perspective.

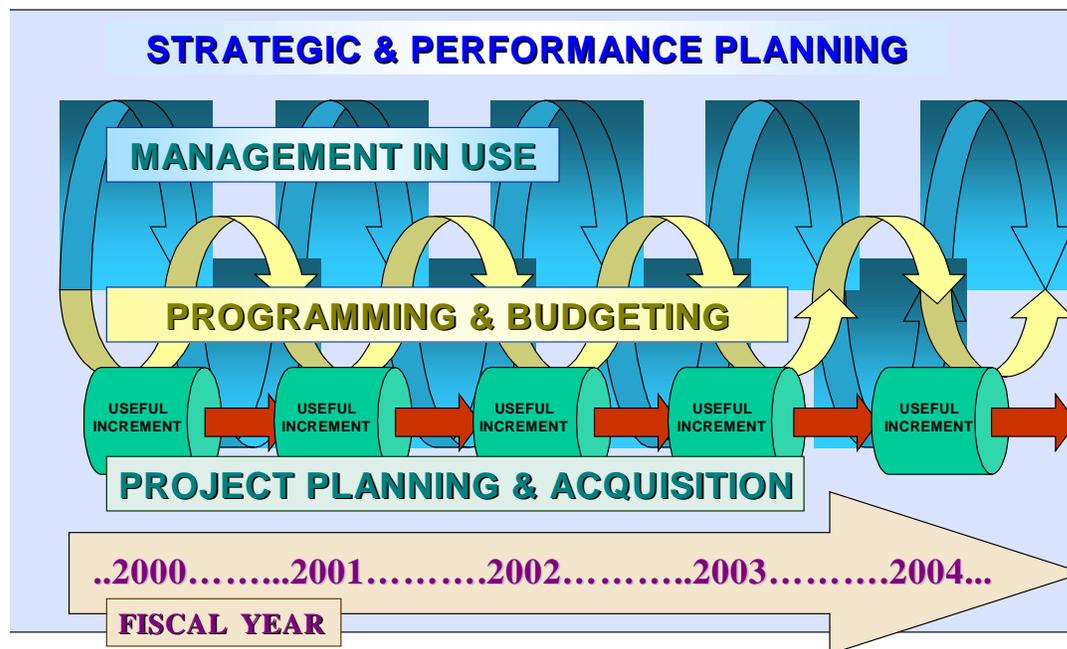


Figure 1-1: Capital Programming Cycle: Another View

Figure 1-1a provides more detail on the activities that take place in each phase of the capital programming process.

## Capital Programming Cycle

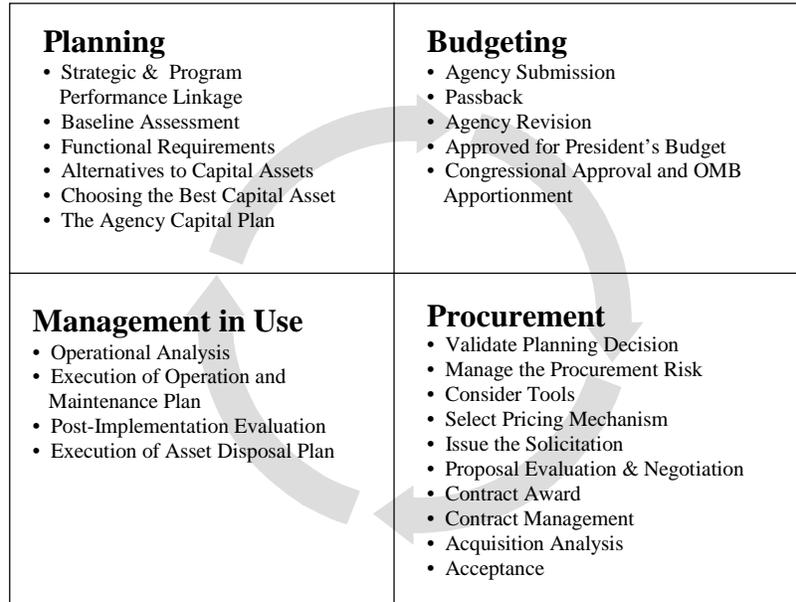


Figure 1-1.a Capital Programming Cycle Activities

This ACP is the collective work of many people and reflects current practice as well as describing desired future courses of action. Recognizing that the ACP reflects a planning process that will continue to evolve, recommendations for improvement are welcome and should be directed to the Chief of the Program Measurement and Evaluation Division, G-CPP-2.

Before describing the process by which the Coast Guard manages its capital assets, it is worthwhile to explore the planning hierarchy in which capital planning is a subset. This integrated planning framework has been termed the Coast Guard "Family of Plans" and is described in the following section.

## A Performance-Based Business and Capital Planning Model

The Coast Guard's ability to accomplish its legal mandates and historical missions is dependent upon its leaders' ability to craft sound strategies that can be executed by well-trained people using the proper equipment. In an organization the size of the Coast Guard, the coordination required to match these components of success at the right time and in an efficient manner is impossible to achieve without a clearly understood, well-crafted planning system. The Coast Guard's business planning process has been developed with this in mind. Recent refinements to that process borrow heavily from the Malcolm Baldrige National Quality Award criteria and incorporate the guidelines of the Government Performance and Results Act. The Government Accounting Office (GAO) has cited this approach as a best practice in their October 1999 report "MANAGING FOR RESULTS – Strengthening Regulatory Agencies' Management Practices".

### THE COAST GUARD'S FAMILY OF PLANS

The Coast Guard has adopted the credo "Management Matters" in developing the service's dynamic strategic management process. In so doing, the Coast Guard has devoted considerable effort to the development and refinement of its integrated planning framework. Figure 1-2 represents the Family of Plans planning architecture.

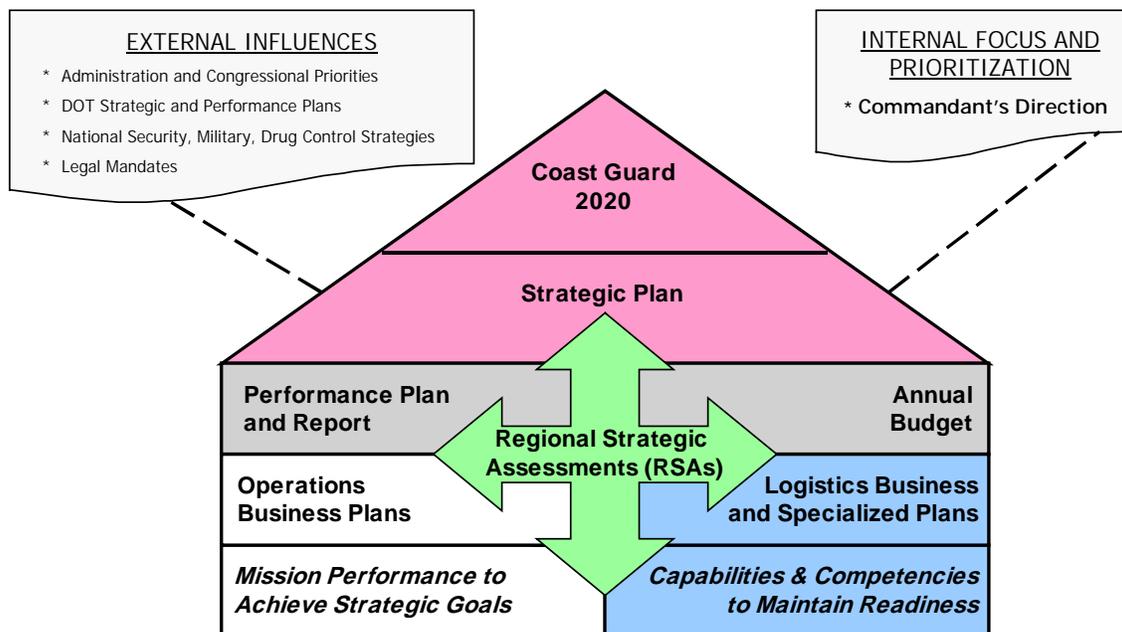


Figure 1-2: Coast Guard Planning Architecture (Family of Plans)

This planning architecture facilitates systematic and rational development of guidance by and for headquarters program managers. It also provides for the subsequent communication of those strategies to: (1) the field units which execute those strategies and; (2) the support programs that provide the people and equipment required by those units. It also provides for performance and capability-related feedback from the field.

### STRATEGIC GUIDANCE

Coast Guard 2020 is the service's vision document. It examines future challenges and opportunities for the Coast Guard, envisioning and projecting future public demand for Coast Guard services. The Coast Guard Strategic Plan defines the service's mission, vision, strategic goals and objectives. It articulates the strategies senior leadership intends to pursue in order to achieve the vision set out in CG 2020. The Strategic Plan is

informed by Commandant's Direction, which establishes the personal priorities and areas of emphasis for the Commandant's four-year tenure, and Administration, Congressional, and statutory mandates.

The Strategic Plan is the business and capital planning directive that lays out strategies and objectives to achieve the organization's strategic goals. Drawing upon the projections of future threat and demand in the Area and District Regional Strategic Assessments, the Strategic Plan serves as an organizational roadmap linking program direction and guidance in headquarters business plans to the vision of Coast Guard 2020.

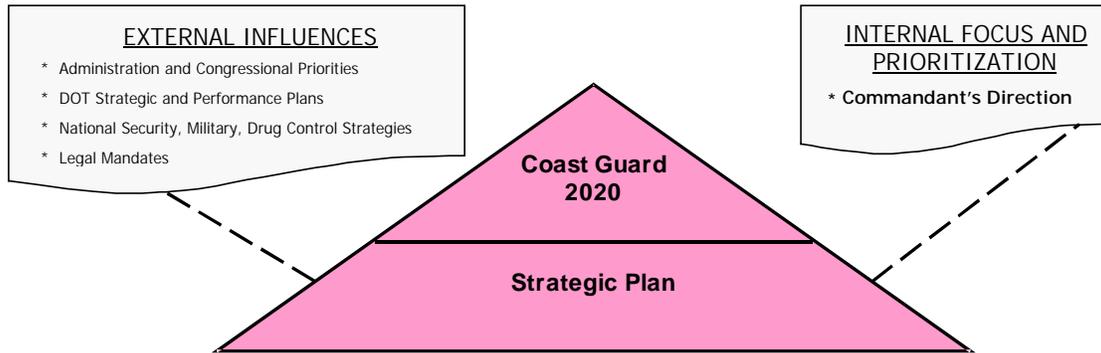


Figure 1-3: Strategic Guidance

Within the base of the Family of Plans diagram and of even shorter-term perspective, are the Coast Guard's Performance Plan and the Logistics/Specialized Plans. These documents -- shaped and informed by the higher-level, longer term documents already mentioned -- provide practical strategies to effectively deliver services, both externally to the public (the Performance Plan) and internally to Coast Guard units (the Specialized Plans).

**OUTCOMES—DELIVERING PUBLIC GOODS**

The Performance Plan reflects the performance goals and annual performance targets associated with the external services provided to the nation by the Coast Guard. It is submitted annually to Congress with the Coast Guard's budget request and details the outcomes the Coast Guard will provide for the taxpayer. It establishes the performance goals by which the Coast Guard's service is measured as well as describing the activities and resources required to achieve the specified level of service. A sample performance goal page from the FY 2000 Performance Plan is shown in Figure 1-5.

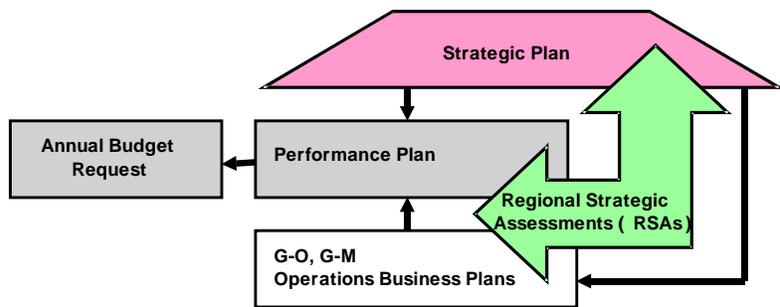


Figure 1-4: Planning-Outcomes Linkage

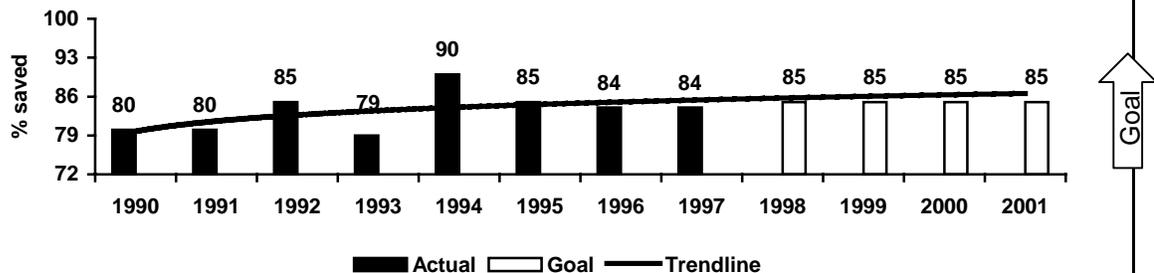
The Performance Plan is compiled from the G-O and the G-M business plans for Operations and Marine Safety and Marine Environmental Protection. Each of these business plans provides significant detail on the goals, strategies, activities, and measures employed by these directorates to deliver services. They also detail the specific resources (funding, personnel, and capital assets) that each program requires. The plans focus on delivering five operational Coast Guard outcomes: *Maritime Safety*, *Maritime Security*, *Protection of Natural Resources*, *Maritime Mobility*, and *National Defense*. Regional Strategic Assessments are prepared annually by the Area and District Commanders examining current and future threats and public demand for Coast Guard

service, and resources available to meet them. These provide input to the strategic plan and operations business plans. Implicit in the G-O and G-M business plans' discussions of goals, strategies and activities are the basic requirements for capabilities and workforce skills necessary to carry out Coast Guard missions. These capabilities are specifically defined in the appendices and are provided by the support programs.

## Response to Mariners in Distress

**Goal:** Save all mariners in imminent danger.

**Target:** Save at least 85% of all mariners in imminent danger as the number of mariners on the water continues to grow. (*New measure for FY2001. Previous measure covered only % of mariners reported in imminent danger that were saved; this measure covers % of all mariners saved.*)



### Why We Act

The Coast Guard main safety priority is to prevent distress situations from occurring. However, over 50,000 distress cases do occur annually. These cases involve the Coast Guard saving the lives of approximately 5,000 mariners in imminent danger, and providing some form of emergency assistance to nearly 100,000 mariners. The number of recreational and commercial marine users continues to rapidly grow as more people move to coastal regions, and global trade increases. Current Coast Guard response readiness will be strained to meet future demand. No other government agency or private organization has the expertise, assets, and 24 hour-a-day on-call readiness to conduct search and rescue missions in all areas of the maritime region.

### Key Success Factors

Several factors compound the difficulty of conducting a successful distress response: untimely distress notification, incorrect or unknown information about the distress, poor communications with the mariners in distress, severe weather at the distress location, and severe injuries that reduce the chances of mariner survival. The most persistent factor to deal with in saving more lives is mariner behavior. Mariners who use safety tools and use good judgment have an enormously better chance of avoiding or surviving an emergency.

### Past Performance

The percentage of lives saved has been increasing slightly over the past several years largely due to better mariner awareness, positioning equipment, and search planning techniques. (The 1994 percentage was significantly higher due to rescues related with mass migration operations.) Historically, the prevalent incident types that result in lives lost are capsizings, people in the water, and personal injuries. Disabled vessels make up most cases, but result in few lives lost.

### Strategies to Improve Performance

**Ongoing:** The Coast Guard seeks to prevent distress cases from occurring by conducting safety boardings, Coast Guard Auxiliary courtesy safety examinations, and public service

campaigns that serve to improve mariner knowledge and skills. The Auxiliary conducts about 40,000 classes for 240,000 boaters each year. However, when prevention efforts fail, the Coast Guard responds to accidents in order to mitigate the damage. To maximize survival chances in incidents that do occur, we maintain a continuous response capability in coastal and deepwater areas using shore stations, boats, cutters, and aircraft. We operate a VHF-FM distress network providing extensive coverage of inland and coastal waters. Our search and rescue personnel are experts in search techniques, and rescue procedures. We employ advanced search sensors and search planning models and require mariners to carry effective distress locating and survival equipment. We work with the international search and rescue community to implement new technology such as the Global Maritime Distress and Safety System that will greatly improve the ability of mariners to notify others of their distress. We also maintain the Automated Mutual-Assistance Vessel Rescue System (AMVER) that allows us to divert nearby commercial vessels to render assistance.

**New:** The Coast Guard will focus on modernizing equipment and acquiring technology to improve the percentage of lives saved: new planning and decision tools, modernized communication systems, and technologically improved datum marker buoys.

**Coordination:** The Coast Guard partners with international, national, state, and local agencies that have response expertise and responsibilities. We work with the International Maritime Organization to implement standards that improve the survival chances of mariners in distress. At the federal level, the Navy and Air Force also maintain limited rescue capabilities. Each agency assists the others depending on need, and the best response capability for a particular location and situation.

### Resources to Support Strategies

**Coast Guard Auxiliary Support (OE \$500,000):** Provides the training and equipment needed for the Auxiliary to

perform expanded missions under the 1996 CG Authorization Act, and provides the capability to support leadership and management of geographically dispersed Auxiliary facilities.

**Personnel Protective Equipment (OE \$1.7 million):** Provides equipment such as cold weather exposure suits that enables Coast Guard rescue personnel to more effectively carry out search and rescue missions in hazardous conditions, thus saving more lives.

**Breaking Surf Station Crews (OE \$1.9 million):** Provides personnel for safety boats and tower watches at stations with high surf conditions. This improves the Coast Guard's ability to respond to search and rescue cases by providing accurate surf condition reports and lowering the level of risk to search and rescue personnel.

**Command Center Support (OE \$882,000); SAR Capability Enhancements (AC&I \$1.5 million):** Improves SAR planning tools, replaces aging hardware, and provides additional support for growing SAR information systems. Decision making and planning is critical to saving more lives – particularly in “people only” cases where finding a person floating in the water is difficult.

**Global Maritime Distress and Safety System (AC&I \$3 million):** Improves the ability of mariners to communicate distress information – key to saving more lives. It will automate the sorting, evaluation, and identification of distress calls.

**47-Foot Motor Life Boat Follow-on (OE \$2.5 million):** Operates new MLBs that expand our capability to meet heavy weather SAR demand in the coastal zone.

**Coastal Patrol Boat Replacement (AC&I \$7 million):** Replaces the aging 82' patrol boat and ensures continued effective SAR services in the coastal zone.

**Deepwater Capability Replacement (AC&I \$42.3 million):** Develops a system of surface, air, command and control, intelligence, and logistics systems to carry out SAR in the remote and often dangerous deepwater region. The rescue of several vessels and an Air National Guard helicopter during the infamous 1991 Storm of the Century would not have been possible without Coast Guard deepwater assets.

**National Distress & Response System (AC&I \$ 22 million):** Improves the ability of mariners in distress to notify the Coast Guard – a critical factor in saving more lives. Current system is taxed by a growing boater population, and does not utilize up to date direction finding and rapid playback features that would contribute to saving more lives.

**Improved Search and Rescue Capability (RDT&E \$1.1 million):** Seeks to develop new search planning tools that help assign the optimal ships and aircraft to a mission, improve our ability to predict the location of search objects affected by current/wind, improve our ability to determine accurate search areas, and generally increase productivity by reducing the area that must be searched and the time required to find survivors.

Figure 1-5: Sample Page from Coast Guard Performance Plan

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**PORTFOLIO MANAGEMENT: LOGISTICS STRATEGIES TO MEET CAPABILITY REQUIREMENTS:  
"FASTER, BETTER, CHEAPER"**

The other half of the Family of Plans diagram's base is the logistics programs' business and specialized plans. Logistics encompasses all the activities associated with developing, acquiring, sustaining, and eventually retiring the components of capability: people, information, and systems. For the purposes of the ACP, the logistics programs comprise the following directorates: G-W (Human Resources), G-S (Systems) and G-A (Acquisitions). Logistics program managers are charged with meeting the capability requirements of the Coast Guard at the lowest possible cost, maximizing the ratio of capability to life-cycle cost.

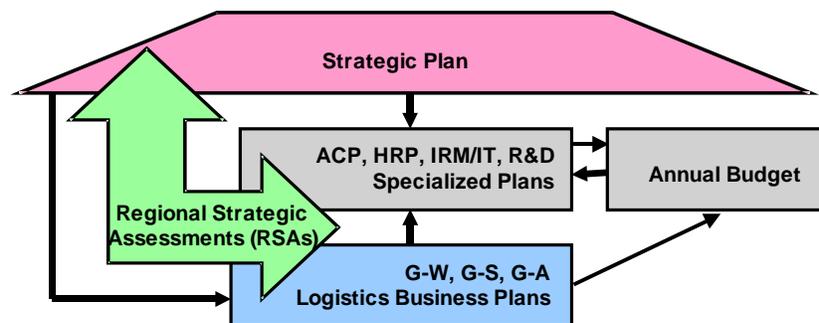


Figure 1-6: Logistics Programs Business Plans and Specialized Plans

These capability-driven requirements can be expressed in terms of performance, availability, and affordability. Logisticians seek to maximize all three of these attributes of capability, thus they are also the core performance goals in the logistics portion of the annual performance plan. Where capability gaps exist or are anticipated based on input from the RSAs, operating and logistics program managers must work proactively to develop bridging strategies within a balanced approach to meeting operational demands for capability. Logistics program managers must continually work with operating program managers and field commanders to ensure that the life cycle cost of maintaining and operating our operational platforms, shore infrastructure and Command, Control, Communications, and Computers is minimized.

These concepts are reflected in the logistics program business plans, described below.

- G-W's business plan is intended to meet the people needs of the service (concentrating on fit, fill and cost) while also meeting the needs of Coast Guard people (both short- and long-term personal well-being and fulfillment needs). These are G-W's outputs. G-W's business focus is on fully meeting the Service's personnel needs (both operational and support), concentrating on optimizing these outputs at the lowest life-cycle cost, and doing so within an integrated, multi-dimensional human resource management system. Although G-W is focused on the people needs of the Coast Guard, this program is responsible for the training and personnel support infrastructure which represents a significant portion of any capital investment.
- G-S's plan concentrates on providing and maintaining systems (operational and support equipment, infrastructure, logistics and information) that best meet the requirements of their customers throughout the Coast Guard. These capability-driven requirements can be expressed in terms of *performance, availability, and affordability*. These are G-S's business outputs. Overall, G-S's business focus is on fully meeting the Service's capability needs (in partnership with G-A for major acquisitions), and concentrating on optimizing these outputs. G-S is also guided by the need to achieve the highest level of efficiency through faster, better and cheaper systems, and doing so within the system-of-systems approach discussed on page 16.

- G-A is a specialized element of Headquarters focused on acquiring major assets and systems that meet the capability needs of the operating programs, and that conform to the life-cycle cost and performance goals of the logistics programs. Their processes are described in the Systems Acquisition Manual (SAM), and are derived directly from Federal acquisition and contracting laws, regulations and policy. G-A's outcomes are generally described by the cost, schedule and performance factors built into every acquisition. G-A's business focus is on meeting these targets in terms of cycle time and lowest cost of acquisition overhead to the Service, while managing risk and providing the highest level of customer satisfaction - in essence, making not only the assets acquired but the acquisition process itself "*faster, better, and cheaper.*"

Logistics business plans focus on strategies to meet service needs for each form of capital (HR, Systems and Information), and develop annual or multi-year goals that are measurable and include both performance and cost/productivity metrics. These plans must be built on the foundation of (internal) customer requirements and established performance standards of people, systems and information as well as the logistics processes that deliver them. Standard setting is an ongoing, collaborative effort involving support providers and their customers, including G-O and G-M, Area, District and MLC commanders, and major Headquarters Units.

## BUSINESS PLAN APPENDICES AND SPECIALIZED PLANS

Both logistics and operations business plans have appendices that list the programs' specific capability and resource requirements. These appendices are a tool to communicate the programs' requirements to the appropriate resource manager. For example, each directorate's budgetary requirements are listed in their business plan's Appendix A which are then collated, prioritized and approved for the annual budget submission by the Director of Resources (G-CRC). For the purposes of capital asset management, Appendix B's (the ACP's inventory page data source) show current capital assets, their use and anticipated service life information. In the future, these will also display performance, employment and life cycle cost data.

After compiling the appendices from the various directorates' business plans, a resource manager has a service-wide listing of capability and resource needs that can then be addressed. *Specialized plans* are the planning documentation that reflect the resource managers' methodologies for addressing the support concerns of the Coast Guard. Generally, specialized plans are service-wide in scope and deal with issues that are more strategic in nature (i.e., longer term) than program business plans and their appendices.

Specialized plans have broad, long-range impact on the Coast Guard's budget and resources, and deal with issues that require focused, comprehensive documentation to ensure the processes that support them are performing well. Where business plans are program-specific documents that focus program and field activities on near-term goals, specialized plans lay out long-term guiding principles, describe processes and products, and establish the means by which we obtain and manage capital or allocate resources. The Business Plans contain a preamble (Core Section I) with descriptions of the directorate and its programs, and a discussion of linkages, and the directorates' annual performance plans (Core Section II). The latter section contains broad requirements on which the directorate will act, specific performance goals, and supporting analyses. The Appendices address different planning areas as follows:

Appendix A:	Resource Implications
Appendix B:	Capability Requirements
Appendix C:	Budget/Spend Plan
Appendix D:	R&D Requirements
Appendix E:	Human Resource Requirements
Appendix F:	Performance Management Information and Systems Support Requirements
Appendix G:	Prior Year Performance Report

Figure 1-7 shows the connections between the performance plan, directorate business plans and specialized plans. The metaphor of a flashlight shining through the various sections of a business plan to reveal another type of document is intended to illustrate the integrated nature of these planning documents. As a result, the

G-O and G-M business plans together inform the Performance Plan and similarly, the cumulative appendices inform the specialized plans (discussed in greater detail above).

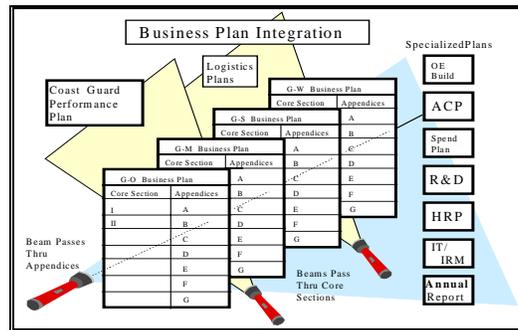


Figure 1-7: Appendices and Specialized Plan Relationship

The following paragraphs cover the major specialized plans that currently exist or are being developed and that have some direct connection to the ACP, identify the owner and primary feeders, and generally discuss their purpose and application:

- **Agency Capital Plan (ACP).** The ACP is the Coast Guard's long-term plan for managing and budgeting the Coast Guard's portfolio of capital assets, including ships, boats, aircraft, shore infrastructure, associated C4I/sensors and information/logistics support systems, and the physical components of our IT/IRM systems. It is revised annually, and developed in parallel with the annual budget and performance plan. It is published to coincide with the C-stage budget, and is fed by business plan appendix B's.
- **Human Resource Plan.** The Human Resource Plan is intended to be the human capital analog to the ACP. It is intended to lay out philosophy and general requirements that are used to develop the Service's future workforce. G-W is responsible for developing and implementing the Human Resource Plan. The Human Resource Plan is operationalized through the G-W business plan. Appendix E of program business plans are the input mechanism for both the G-W business plan and, when the issue is of a strategic HR nature, the Human Resource Plan.
- **Information Technology (IT) Management Strategy.** The Chief Information Officer is responsible for this document, which serves as the primary means to articulate strategy for translating overall service requirements for information capital and IT capability into corporate processes, equipment and policy. As with the Human Resource Plan, both the G-S business plan and the IT Plan will be fed by Appendix F of the program business plans. Additionally, the IT Plan will be guided by financial information system requirements from the Chief Financial Officer (G-CFP), as well as by special studies and mission analyses.
- **R&D Plan.** G-S is responsible for this plan which serves as the primary means for the Coast Guard's R&D program to encapsulate service-wide requirements for technology and institutional research. The plan is fed by Appendix D of the program business plans as well as by broader needs developed from special studies and mission analyses.

Given that the majority of services provided to the public by the Coast Guard are at the field level, it is critical that the strategies (and subsequent resourcing of those strategies) not be developed in a headquarters vacuum. The field commanders must have significant input to the planning process. The Family of Plans allows for this in several ways. The methods that are pertinent to capital planning are briefly described below:

- **Shore Facilities Capital Asset Management (SFCAM)** provides a holistic, life cycle management process for shore infrastructure. It includes master planning and facilities inventory procedures for shore infrastructure, and a revised feeder/trigger mechanism into the planning proposal/Shore Facilities

funding (SFRL) process. G-S/SEC is the process owner in consultation with G-CPA and G-CPP, and utilizes SFCAM to inform its business planning process.

- Regional Strategic Assessments (RSAs), conducted by each District and aggregated into Area assessments, take a critical look at current and future threats and demand for Coast Guard services, and examine the adequacy and availability of resources to meet these demands. RSAs are used to feed field requirements and priorities to Program Directors, which are then used to inform the business planning and budget development processes. G-CPP, in consultation with the Area Commanders, is the process owner.
- The Planning Proposal Process, includes problem statements based on the regional assessments or SFCAM outputs before complete planning proposals are submitted. This reduces the workload on field planners by identifying the highest priority candidates for AC&I shore projects within a five-year planning horizon, and reinforces the linkage between SFCAM, the SFRL process, and the AC&I budget. It also ensures a rational, consistent framework for making decisions on funding sources (OE vs. AC&I) for shore projects.

While not all of the planning efforts and documents described above have the same degree of importance for the ACP, there are connections that should be understood if Coast Guard planners are to realize the full benefits of such an integrated planning architecture. The next few sections of the ACP are intended to show how this planning architecture functions to actually provide the right resource to achieve the desired outcomes. Accordingly, one must first identify what the desired outcome is, then build the strategy and resources to achieve that outcome. For the Coast Guard, the Performance Plan describes this logic path.

## Overview of Coast Guard Mission and Outcome Goals

The Coast Guard's mission statement and five strategic outcome goals derive from statutes that provide the bedrock authority and responsibility of the Service, and represent broad areas of national interest that the Coast Guard exists to fulfill. They also serve as guideposts for the development of annual performance goals and as a means to validate the activities we carry out and the asset portfolio we maintain. Everything we expend effort or resources on – including programs, policies, assets, activities, and requirements – should ultimately be traced to the achievement of these strategic goals. The Coast Guard's mission statement and strategic outcome goals as they appear in the Strategic Plan are listed below:

### Coast Guard Mission

**The United States Coast Guard is a multi-mission maritime service and one of the Nation's five Armed Services. Its mission is to protect the public, the environment, and U.S. economic interests - in the Nation's ports and waterways, along the coast, on international waters, or in any maritime region as required to support National Security.**

### Outcome Goals

**Maritime Safety:** Eliminate deaths, injuries, and property damage associated with maritime transportation, fishing, and recreational boating.

**Maritime Security:** Protect our maritime borders from all intrusions by halting the flow of illegal drugs, migrants, and contraband into this country through maritime routes; preventing incursions of our Exclusive Economic Zone; and suppressing violations of federal law in the maritime region.

**Protection of Natural Resources:** Eliminate environmental damage and natural resource degradation associated with maritime activities, including transportation, commercial fishing, and recreational boating.

**Maritime Mobility:** Facilitate maritime commerce and eliminate interruptions and impediments to the economical movement of goods and people, while maximizing recreational access to and enjoyment of the water.

**National Defense:** Defend the nation as one of the five U.S. Armed Services. Enhance regional stability in support of the National Security Strategy, utilizing our unique and relevant maritime capabilities.

### Logistics Goals

**Human Resources:** Identify and provide the right Human Resources capabilities at the right time, in the right place and at the right cost to achieve the Coast Guard's Mission, Vision and Strategic Goals.

**Systems:** Identify and provide the right Systems capabilities at the right time, in the right place and at the right cost to achieve the Coast Guard's Mission, Vision and Strategic Goals.

**Information:** Identify and provide the right Information capabilities to the right people at the right time and at the right cost to achieve the Coast Guard's Mission, Vision and Strategic Goals.

## LINKAGE TO DEPARTMENT OF TRANSPORTATION STRATEGIC PLAN

These outcome goals reflect strong alignment with the five strategic goals of our parent agency, the Department of Transportation. The diagram below shows this alignment with the DOT's Strategic Goals as

published in the 1997-2002 DOT Strategic Plan, as well as illustrating the relationship between statutorily described programs (mission areas) and the outcomes they produce.

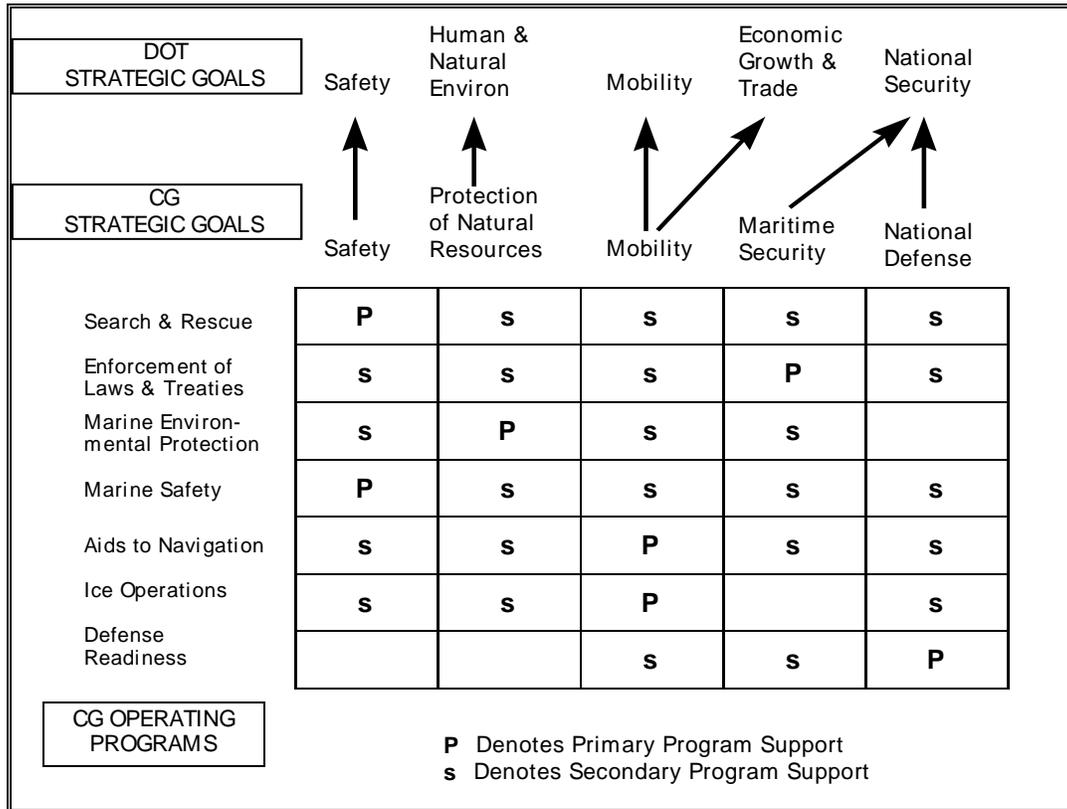


Figure 1-8: CG Goal Linkage to DOT Goals

**LINKAGES BETWEEN MISSIONS, GOALS AND CAPITAL ASSETS**

The Coast Guard exists to perform mandated missions to achieve its strategic outcome goals. Figure 1-9 shows the logical flow of resource inputs, which are converted to capability through logistics processes, and then employed in operational activities to produce service outcomes. The capital assets discussed in the ACP fall into the category of capability - without the capability afforded by capital assets the Coast Guard would not be able to perform many of its missions.

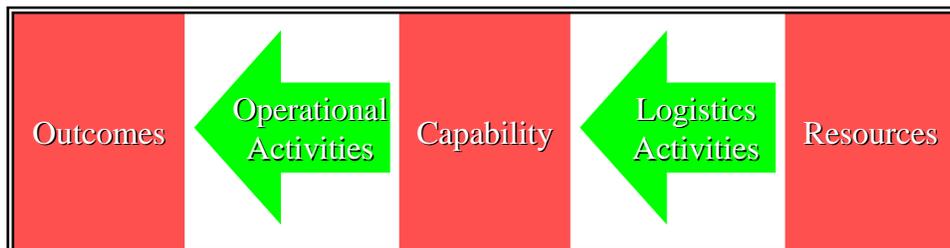


Figure 1-9: Linking Resources to Outcomes

## Coast Guard Capital Asset Management Principles

Federal agencies exist to provide certain public good outcomes. These outcomes can be determined from analysis of historical missions, legal mandate, and executive direction. It logically follows that every capital asset in any agency's portfolio should demonstrably be linked to how that agency provides its public goods. In the Coast Guard, these public goods are defined as our outcome goals. The following example reveals how we link those public goods to our capital assets.

### STRATEGIES TO ACHIEVE COAST GUARD OUTCOMES

One of the five Coast Guard strategic outcome goals is Maritime Safety: Eliminate deaths, injuries, and property damage associated with maritime transportation, fishing, and recreational boating. This outcome can be achieved through both prevention and mitigation (or response) strategies. Working from left to right in the diagram below, the reader will gain a sense of the strategic options and sub-options available to achieve the Safety outcome.

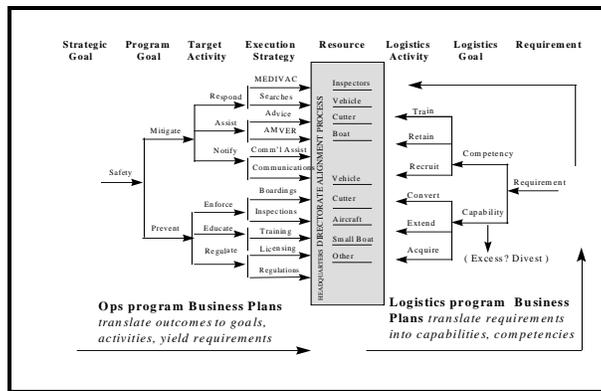


Figure 1-10: Linking Operational Requirements to Logistics

The Operations Directorate could focus efforts on 1) effectively *preventing* accidents, 2) *responding* effectively to accidents (mitigating), or 3) some combination of both. In order to prevent accidents, there is a range of target activities that includes enforcement of safety regulations, education of mariners, or development of new safety regulations.

There is a similar range of activities available to mitigate accidents (respond, assist, communicate). Some combination of activities would be selected by the program manager to make the most headway toward the outcome of Safety. The strategic options and activities that are selected have direct bearing on the types of capital assets acquired and how they are employed. These are generically illustrated in the middle gray box. Continuing to the right in the diagram, one can see what logistics activities are then required to provide the types of capital (or human) assets required. Logistics program managers are in the business of meeting these capability requirements at the lowest possible life-cycle cost.

Continuing with this example, one subordinate performance goal is to “save all mariners in imminent danger.” However, in selecting strategic approaches, the Coast Guard program manager responsible for achieving this performance goal would have to consider the composition of the “customer” base. Intuitively (for the purposes of this example), the strategic approaches would vary significantly between the recreational boating public and the commercial fishing fleet – both groups are Coast Guard customers. Within each category of customer, the program manager would have to analyze maritime accidents to determine where in the chain of cause-and-effect the application of Coast Guard effort would have greatest impact. It is likely that a combination of both prevention and response strategies would be selected for both groups. The program manager would then evaluate the available resources to conduct those strategies. If the capabilities of current resources are adequate, the program manager would then apply those resources to the strategies –

changing the current level of effort and re-directing current capital assets as necessary to achieve the desired ends. If the current resource capability is inadequate, the program manager would petition the logistics programs for additional capability -- potentially proposing the acquisition of new capital assets or the upgrading of existing assets -- to achieve those strategies. The logistics programs would then be responsible for providing this capability at the lowest possible life-cycle cost. All the while, the program manager would monitor the performance goal measures to evaluate whether the strategic approaches selected are in fact the most effective. This, in essence, is the program evaluation process and is consistent with the approaches recommended by OMB.

#### DEFINING CAPABILITY REQUIREMENTS: PROGRAM EVALUATION AND MISSION ANALYSIS

The Coast Guard must operate in, on and above the waters of the United States and its environs in order to accomplish its goals and activities aimed at delivering service to the American public. Since 1790, the Coast Guard has produced a positive return on investment, and must continue this tradition. As we continually assess our capital plant, we review mandates, missions and requirements to ensure that we achieve the proper balance between performance, capabilities and cost.

The following studies and reports, completed over the past several years, have defined Coast Guard requirements, assessed the ways we do business, and evaluated current and future capital asset capabilities, gaps and needs.

- Coastal Force Staffing Model to be completed October, 2000
- Coastal Zone Mission Analysis Report 1999
- Fleet Force Mix 2000 1999
- C4I Objective Architecture and Transition Plan 1998 (currently being updated).
- Strategies for Improving Shore Facilities Capital Asset Management, 1997 & 1998
- C4I Baseline 1997
- Great Lakes Icebreaking Mission Analysis June 1997
- Operational Information System Mission Analysis Report April 1997
- C4I Baseline Architecture 1996
- HC-130 Supplemental Mission Analysis Report December 1995
- International Ice Patrol Mission Analysis Report November 1995
- Vessel and Station Boats Mission Analysis Report May 1994
- Short Range Communications System Mission Analysis Report May 1994
- System to Automate and Integrate Logistics Mission Analysis Report, November 1993
- Station Re-leveling 1992
- Port Needs Study (Ports and Waterways Safety System) August 1991

Data from each of these documents have been used in our current capital planning efforts and to build the ACP. Lessons learned from each of these efforts are also being incorporated into the directives and guidance documents concerning mission analysis and the acquisition process. This collective body of work represents the current status of Coast Guard capital requirements definition and portfolio management. The continuing challenge is to create a framework to link business planning and management of assets-in-use to effectively build better capital plans that look at the entire portfolio from a life-cycle perspective.

Mission analyses are continuous, iterative processes employed or used throughout all management and organizational levels of the Coast Guard to monitor, measure and evaluate the execution of Coast Guard missions. Annually, each operational and support assistant commandant takes a "snapshot" of this process in the form of a published business plan. As noted in pages 1-7 through 1-10, the business plan format is specially configured to facilitate communication between all programs, but particularly between operational and support programs.

## A “SYSTEM OF SYSTEMS” APPROACH: CAPITAL ASSETS AS COMPONENTS OF SYSTEMS

With a diverse set of missions and mandates requiring the employment of highly capable, multi-mission platforms and shore facilities, the Coast Guard has developed a model with which to manage its capital asset portfolio. This model is known as the “system of systems.” For the purpose of both operational performance planning and capital asset management, the Coast Guard’s operational environment is broken into three distinct functional regions - *Deepwater*, *Coastal* and *Waterways* - based on the unique demands these regions place on our equipment and capabilities as they are employed to achieve Service outcomes. These groupings allow planners to optimize investments across platforms within each operating environment and to meet the requirements of A-11 and GPRA. The Service’s information and command systems, comprised of *C4ISR* (*Command, Control, Communication, Computers, Intelligence, Surveillance and Reconnaissance*), as well as logistics infrastructure, comprised of *logistics systems* and *shore facilities*, are treated similarly.

Taken together, these five groupings or portfolios of capital assets are managed as a “*system of systems*” that work in a complementary fashion to achieve the highest level of capability attainable at the lowest life-cycle cost. The illustration below represents this concept, and shows how both C4ISR and logistics infrastructure serve as key linking elements between the assets (ships, planes, boats, coast search and rescue stations, etc.) we employ in operational activities.

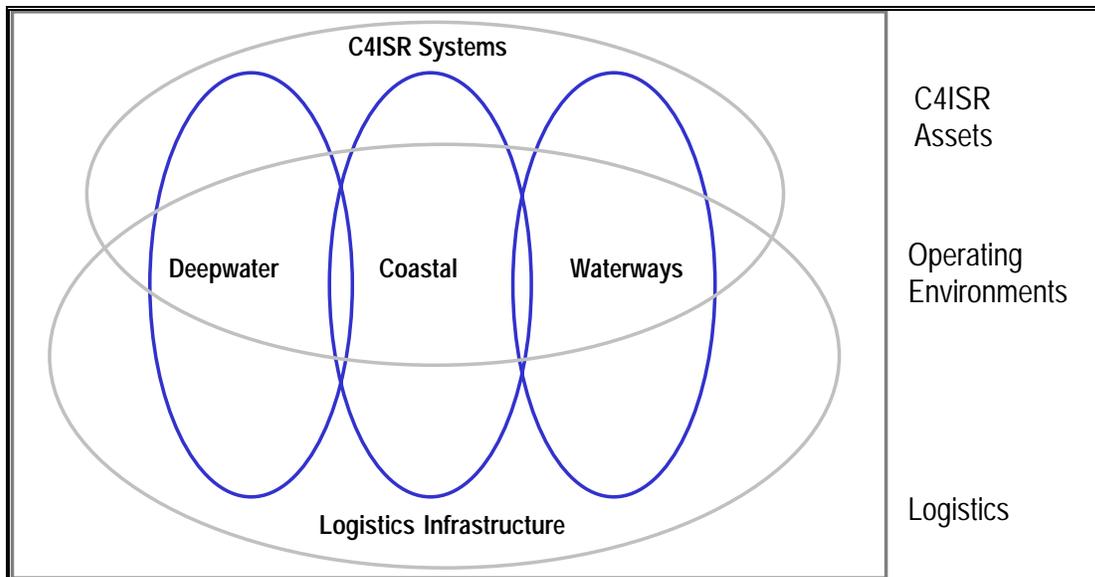


Figure 1-11: CG System of Systems—An Open Architecture of Capability and Assets

This concept, when expanded into a more comprehensive set of capabilities, allows planners and asset managers to identify the role that each element of our asset base plays in contributing to individual performance goals and overall service outcomes. By linking assets to outcomes, and grouping assets into specific categories (or systems of systems), the multi-mission nature of assets and their contribution to overall service effectiveness becomes clear. This also allows the life cycle management of the assets that make up a system to be more rationally tied to the budget process. The timing of mission analysis, facilities planning, investment, divestiture and recapitalization decisions, as well as defining requirements for funding, is managed from the perspective of maintaining system capability over time rather than on an asset-by-asset basis.

## CAPITAL PLANNING PROCESS

The background discussion at the beginning of this ACP noted that the ACP's emphasis is on the overall capital programming process and on the planning phase of the capital programming cycle. The preceding pages have separately described the Coast Guard's use of a "system of systems" approach to managing capital assets, and various components of the service's capital planning process. Figure 1-12 attempts to draw these components together by depicting the process super-imposed on the diagram of the capital programming cycle developed in OMB Circular A-11. In this depiction can be seen the Coast Guard analog to each phase and step of the cycle. Again however, the focus of the ACP is on planning and managing the capital portfolio.

The management in use phase also includes evaluative information provided to facility and program managers by the field units which operate and maintain Coast Guard assets. At the same time, area and district staffs provide feedback regarding capability information through the RSA process. RSAs are in turn used to inform the strategic and performance planning process. Together, these plans and assessments are used in the generation of Assistant Commandants' business plans: the link between planning on the one hand, and budgeting and execution on the other. The RSAs identify requirements from a field perspective, so both operational and support business plans reflect close coordination with the Area, District, and MLC commanders' portions of the RSAs to ensure vertical alignment.

By the time evaluative information reaches the business planning phase, we are deep in the Coast Guard's equivalent of the *Capital Programming Guide's* PLANNING phase. Figure 1-12 shows that

- A. business plans are fed by the Strategic Plan, Performance Plan, and the RSAs, and that
- B. business plans feed, in turn, into the ACP. Appendix B of the programs' business plans reflects each program's capital asset requirements (focusing on operational capabilities, information requirements, and workforce skills and knowledge) to provide a requirements-based capital planning process. The inventory of each program's capital assets, and their maintenance and operational life-cycle costs and projections are compiled in Appendix A of the ACP. Coast Guard program managers responsible for achieving particular performance goals consider various strategic approaches. Analyses must be conducted to determine where in the chain of cause-and-effect the application of Coast Guard effort would have greatest impact. If the capabilities of current resources are adequate, program managers apply those resources to the strategies – changing the current level of effort and re-directing current capital assets as necessary to achieve the desired ends. If the current resource capability is inadequate, the program manager should petition the logistics programs for additional capability -- potentially proposing the acquisition of new capital assets or the upgrading of existing assets -- to achieve those strategies. The logistics programs are then responsible for providing this capability at the lowest possible life-cycle cost. All the while, the program manager monitors the performance measures applicable to that goal to evaluate whether the strategic approaches selected are in fact the most effective. Logistics business plans focus on developing goals, strategies, and activities to provide the resources (human resources, systems, and information) the operational units of the Coast Guard employ to accomplish Coast Guard missions. The Shore Facility Capital Asset Management process for shore facilities, or the Information Technology Management Strategy for information systems provide constructs for management of real property and IT assets respectively, are filters through which alternatives to capital assets are considered, and provide criteria with which recommendations are made for selection of the "best" capital asset. Each of these processes has similar steps but is configured to the unique characteristics of the portfolio of capital assets managed through that process.
- C. Upon completion of the annual update of the ACP, the Resource Group reviews and approves the document, and prioritizes proposed reinvestments. (Chapter 2 will address capital asset decision methodology in greater detail.)
- D. The ACP and the Resource Group's prioritization of investments is provided to the Investment Board. The Investment Board is thus armed with the requisite information for managing the capital asset base, or portfolio of assets, and with the background and context to be used in selecting new investment projects.

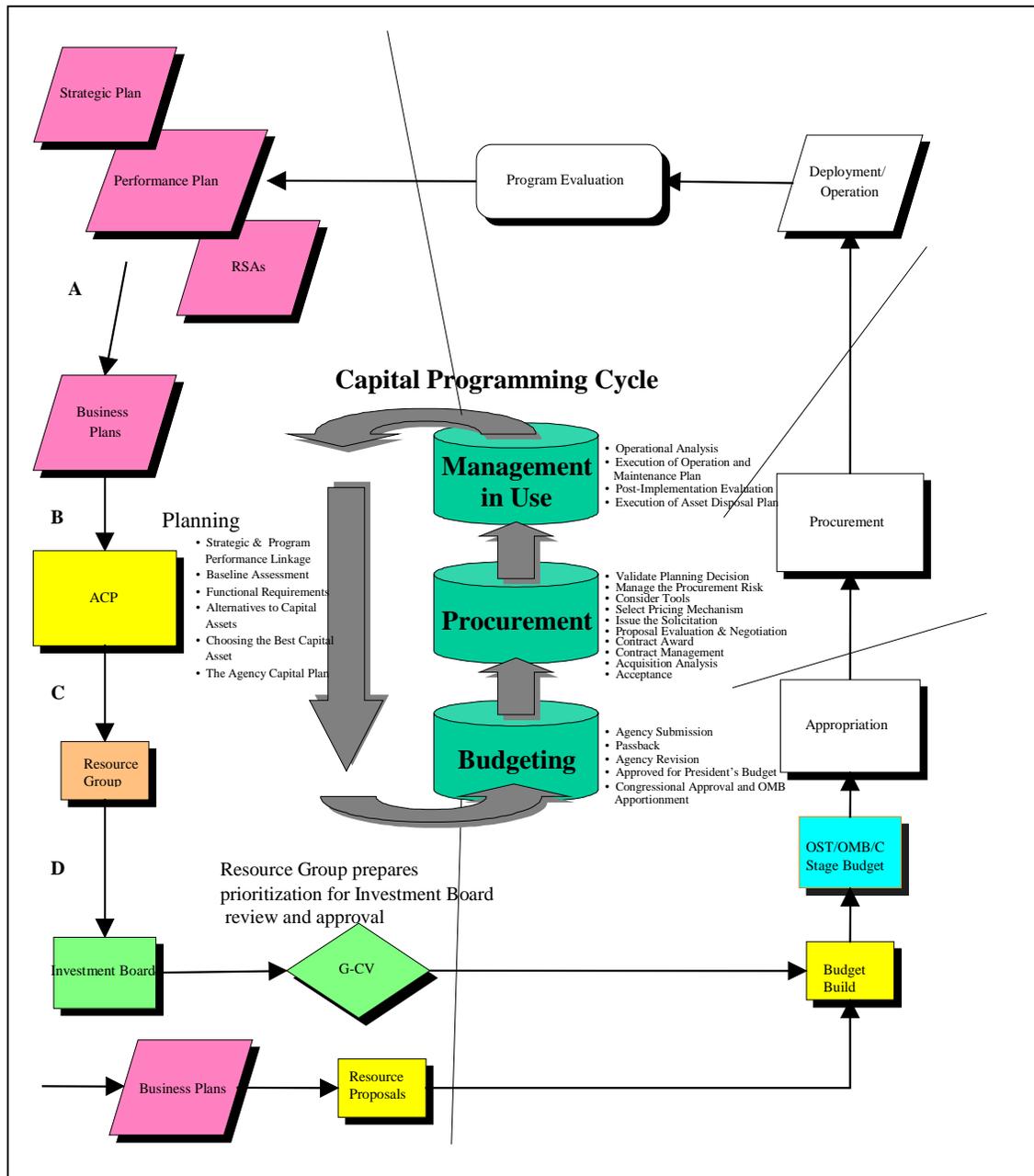


Figure 1-12: Capital Planning Process

# CHAPTER 2 :

## CAPITAL ASSET BUDGETING IN A CONSTRAINED FUNDING ENVIRONMENT

### Funding the Coast Guard's Capital Asset Investments

The Coast Guard's Acquisition, Construction and Improvements (AC&I) appropriation provides funding for the procurement, construction, renovation and improvement of aids to navigation, shore facilities, vessels, and aircraft, including equipment not fitting into any of the previous categories. It also funds personnel compensation, benefits, and costs related to administration of AC&I projects. Figure 2-1 depicts the funding history of the AC&I appropriation.

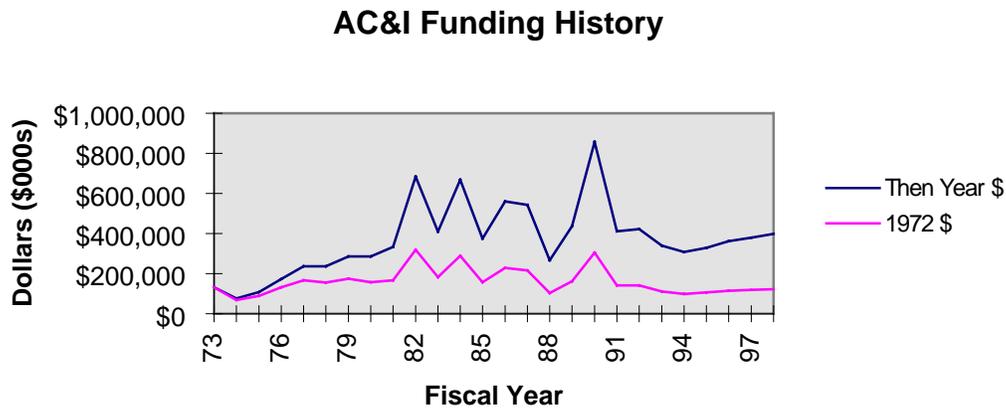


Figure 2-1: AC&I Funding History (\$000s)

In addition to AC&I funding used for acquiring or upgrading assets, considerable OE funding is expended annually on routine maintenance and upkeep of assets currently in the inventory. Developing and implementing strategies to maximize the benefits of investing this combination of AC&I and OE funds for the purpose of generating necessary asset capability is the focus of this chapter.

### CAPITAL ASSET PORTFOLIO VALUE / ESTIMATED ANNUAL RECAPITALIZATION NEEDS

The current replacement cost of the Coast Guard's capital plant is approximately \$21 billion.<sup>1</sup> Figure 2-2 shows the breakdown of this portfolio by type for selected years. The combination of annual AC&I funding

<sup>1</sup> COMDT (G-CPP) memo dated 1 May 1996 on "Replacement of CG Capital Plant". The \$21 billion figure is the recapitalization cost noted in this memo, adjusted for the rate of inflation since 1996.

for new/replacement assets and OE dollars budgeted for maintaining current assets must be sufficient, in the context of service life and capability of assets in the inventory, to ensure the Coast Guard will be able to meet mission commitments well into the future.

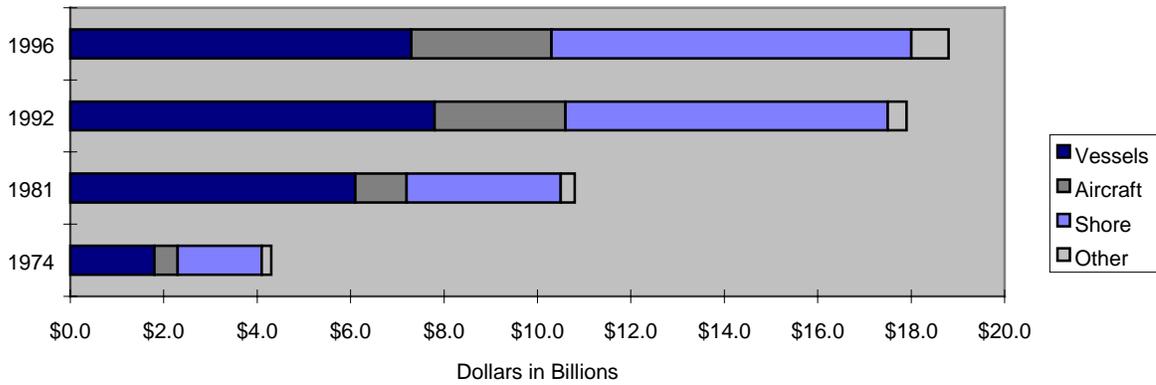


Figure 2-2: Replacement Value of CG Assets (in 1996 \$)<sup>2</sup>

Acquisition cost typically represents 5-20% of the life-cycle cost of assets – the remainder is incurred over time as maintenance and through repairs and periodic upgrades of components. Figure 2-3 reflects the typical breakout of life-cycle costs associated with a Coast Guard patrol boat.

As aging assets cost more to maintain, additional demand is placed on OE funds to keep these aging assets fully operational. This presents a serious challenge to Coast Guard planners. For example, recapitalization of the existing \$21 billion capital plant at an annual rate consistent with the FY 2000 AC&I appropriation (\$ 389 million) would take nearly 55 years, assuming 1) equal investment across all assets, and 2) that no AC&I funds would be spent on personnel costs for project management or for improvements to existing assets (these would be funded out of OE alone).

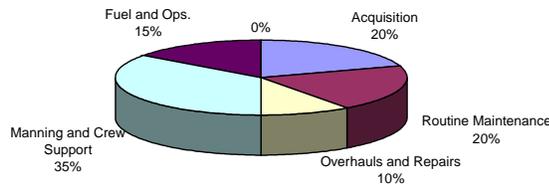


Figure 2-3: Typical Life-cycle Cost Breakdown of a USCG Patrol Boat

The concept of “block obsolescence” derives from the assumption that all assets of a class must be replaced at a definite point in time based on planned service life (PSL). Since most major systems (ships, aircraft and boats) were acquired in short duration acquisitions, replacement occurs in a correspondingly short window at the end of the PSL in order to maintain capability, assuming service life extension projects are not undertaken. Compounding the problem is the variation in planned service lives: multiple systems may have to be replaced in the same time frame despite original acquisitions being staggered over a number of years. (See service life table above.) Figure 2-4 represents the recapitalization rate required for each of the industry

<sup>2</sup> Ibid.

standard planned service lives. Though this table does not reflect the prioritization of capital investments or re-engineering of processes which are vital to efficient accomplishment of public services, it does serve to show that continued funding at or near the FY 2000 level is insufficient to recapitalize existing assets prior to the end of their planned service life.

<i>Asset Categories</i>	<i>Planned Service Life</i>	<i>Planning Lead Time</i>	<i>Annual Recapitalization Rates</i>
Vessels	30 Years	8-12 Years	\$250 Million
Boats	15 Years	5-10 Years	\$30 Million
Aircraft	20 Years	10 Years	\$185 Million
Electronics	8 Years	3-7 Years	\$81.1Million
Shore	50 Years	5 Years	\$156 Million
Total			\$677 Million

Figure 2-4: Planned Service Life (not including service life extensions) with Annual Recapitalization Rates (in 2000 \$)

More immediately, (and notwithstanding the dangers of assuming one-for-one replacement of assets) this level of funding is insufficient to meet documented requirements for replacement of capital assets (i.e. coastal patrol boats, seagoing buoy tenders, & motor lifeboats). Failure to address current capital investment requirements exposes the Coast Guard, and the public it serves, to the risk of obsolescence of aging resources and facilities. An important goal of this plan is to clearly document upper limits of capital requirements, identify the planning required to execute investment decisions, and provide a means by which to assess resource allocation alternatives.

Figure 2-5 indicates the average annual distribution of AC&I funds within specific categories over the past ten years.

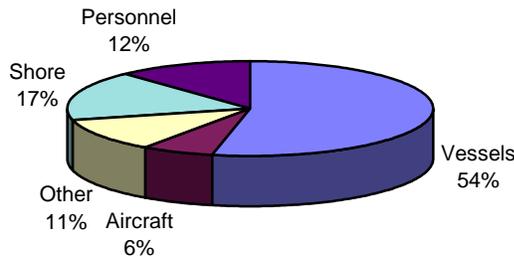


Figure 2-5: AC&I Funding Percentages By Category

## Capital Management Principles in a Constrained Funding Environment

The capital asset planning process described elsewhere in this ACP may identify current or future capability gaps; however, it does not identify budgetary solutions which allow closing such gaps.. This section attempts to offer various methods to address identified capability gaps within the constraints of a limited AC&I appropriation. These solutions range from innovative (less expensive) approaches to meeting mission requirements, to managing AC&I cash flows to conform to current funding limitations, to finding new funding sources.

Coast Guard capital assets must deliver high performance, show significant productivity returns, and be consistent with the Coast Guard's future vision of itself to be acquired and maintained in service. Supplementing, and in some instances overlapping, these considerations are several recurring themes that must guide Coast Guard resource managers in this era of smaller federal budgets.

First, ***invest to save...*** In every decision involving capital assets, a fundamental objective must be to minimize the direct and indirect life-cycle costs associated with acquiring, maintaining and divesting each asset. Not only are the costs to acquire an asset important - the legacy costs associated with operating and maintaining the asset through its service life must also be carefully considered. Assets must be evaluated both individually and as part of systems that contribute to service outcomes. If disproportionate funding is required to maintain and operate an asset relative to its contribution to mission performance or outcome, or if operating costs are disproportionate to the acquisition and operating cost of a new asset, then that asset should be scrutinized to determine if more efficient options are available. Additional considerations, such as leveraging technology to reduce manning or performing the mission with fewer, more capable assets must also be considered. Thus, minimizing outyear costs and avoiding near-term costs must be a continuously pursued goal of all asset managers in their ongoing business planning and portfolio management efforts. (e.g. reduce the need for material solutions, own fewer assets, acquire more durable or inexpensively maintained assets, etc.) Life cycle costs must be a major factor in the evaluation and selection of proposals in the acquisition process.

Second, ***reduce outyear recapitalization requirements.*** Through rigorous, ongoing program evaluation and continual evaluation of technological improvements. This is the foundation of long-range management of the capital asset portfolio, and should be focused on delivering the highest level of capability at the lowest life-cycle cost required to meet mission needs. No asset should be in the portfolio unless there is a clear requirement for it, derived from a mission analysis process that comprehensively analyzes and evaluates the strategies and activities required to achieve Service outcomes. For operational assets, this process must account for trends in the external environment, examine organizational alternatives to current operational methods, consider the performance and condition of assets currently in use, examine technological improvements for effectiveness or efficiency, and identify gaps or inefficiencies/excesses. In the case of shore infrastructure, a comprehensive approach to shore facility master planning must examine the functional requirement for the facility, and systematically lay out a life-cycle strategy to provide optimal service at the lowest overall cost.

Third, ***aggressive and innovative capability tradeoffs must be managed within a well-balanced portfolio of assets.*** A balanced portfolio of assets is one in which every asset contributes to the performance of the whole, and in which the productivity of the whole is greater than the sum of the parts. This level of performance can only be achieved if assets are managed as systems, and if the capability of each asset is maximized relative to the performance requirements of the system. Within the Coast Guard's operational portfolio of assets, the primary means of reaching this goal is through multi-capable platforms designed to meet a variety of mission requirements without creating unnecessary redundancies among platforms within the system. While the cost of a multi-mission asset may be slightly higher than a single-purpose asset, on balance the total system cost in which the assets operate is almost always significantly lower. Additionally, when technological improvements are considered, it is important to avoid "bleeding edge" technologies with significant technical risk. Shore facilities and support infrastructure are also considered as

key elements of a balanced portfolio, with the emphasis on minimizing investment in infrastructure and gaining economies of scale wherever possible through centralization and consolidation of functions. A critical aspect is balancing the lifecycle costs of assets, and incorporating strategies and policies that include all of these costs as part of the management of the whole portfolio.

Fourth, ***flexible investment planning to stabilize funding requirements***. Maintaining a balanced portfolio of assets within the current budget environment means maintaining a stable requirement for funding in the foreseeable future. To minimize variations, or “spikes,” in outyear capital funding requirements, the Coast Guard employs a variety of techniques aimed at balancing acquisition, maintenance, service life extension and divestiture across the entire asset portfolio. Even when each of the first three objectives described above are met, additional steps must be taken to stabilize future funding requirements.

- **Timing of Acquisition:** Timing of acquisitions (when and over what duration) depends on a number of factors, including determining the economical service life of assets currently in the inventory, rates of technological obsolescence, projecting basic cost of managing an acquisition (admin/overhead costs, economical order quantities, duration of contracts, etc.) and the current and future effect of phasing acquisitions to avoid block obsolescence. Staggering costly projects or overlapping less costly projects over a 10-15 year timeline will result in more balanced funding requirements (but may be somewhat more expensive due to sub-optimal production/delivery schedules).
- **Maintenance Practices:** Maintenance is a key factor in preserving the capability and longevity of an asset. Careful consideration must be given to routine and major maintenance requirements of every asset, and development of maintenance doctrine that ensures that performance and longevity standards will be met. Deferring maintenance usually results in a reduction of service life or premature failure of costly components and is not a substitute for maintaining an appropriate level of funding to meet maintenance requirements. Deferred maintenance is a cost, not a savings, if the asset is kept in service, and thus is generally regarded as a false economy. However, if we choose to defer maintenance, we must carefully track the impact on system performance. Finally, tradeoffs between up-front costs and lifetime maintenance costs must be balanced. High quality systems, or systems that are less technically sophisticated (that require relatively less frequent periodic or major maintenance) may allow acquisition of fewer platforms at lower overall cost while still meeting performance requirements and minimizing out-year O&M costs funded out of OE.
- **Extending Service Lives:** Determination of an asset's service life requires careful attention to many factors, including the planned service life (determined when the asset was designed and built); the economical service life (based on maintenance, repair and operating costs); the technological service life (determined by obsolescence of key components; or if the technology of the asset is not equal or superior to available technology in the market; or if adversaries possess higher technology); and the structural service life (based on the basic physical condition of the asset). When an asset is determined to be a candidate for service life extension, all of these factors must be considered and weighed against funding availability. When economically feasible, extending the service life of an asset to permit balancing of portfolio funding needs is appropriate. In some cases, the entire asset may not be obsolete, but mission performance is degraded - components may be replaced to correct deficiencies (such as sensors or engines) at far lower cost than replacing the entire asset.
- **Appropriate Divestiture of Assets:** In the context of capabilities and requirements, a balanced portfolio implies that ongoing mission analysis identifies both performance gaps and excess capacity/capability. Timely divestiture decisions made in the context of keeping the entire portfolio of assets performing at optimal levels frees OE funding that may otherwise be tied up keeping inefficient or obsolete assets in service, and removes AC&I projects associated with that asset or facility from the backlog. While divesting assets will not necessarily provide a self-funded alternative to future AC&I budget requirements, divestiture is a balancing tool that allows tradeoffs to be made. With this in mind, the Coast Guard is reengineering its approach to managing its shore facilities. The developing Shore Facility Capital Asset Management (SFCAM) process mentioned earlier provides a consistent and logical process for making such shore infrastructure investment and divestiture decisions.

These techniques to maintain a balanced, capable and affordable capital portfolio are increasingly driving Coast Guard resource decisions and were specifically considered in developing the Long Range Resource Acquisition Plan contained in Appendix D.

## Capital Management Strategies in a Constrained Funding Environment

The principles discussed above can be translated into specific strategies that can be applied to the capital asset portfolio during any phases of the capital management process. This section identifies some of those specific strategies to be considered by resource managers when faced with capital investment decisions. Appropriate use of any specific strategies is determined on a case-by-case basis. However, resource managers must be cognizant of the options available.

### OPERATING ASSETS BEYOND PLANNED SERVICE LIVES

While industry standards for projected service lives are used in the capability discussions of Appendix A, the Coast Guard has traditionally operated assets long past such planning factors, typically due to exceptional maintenance, constrained investment funds and growing demands for asset employment. The Coast Guard has often continued to operate aging assets until the capability they provided was seriously jeopardized by long-overdue major maintenance and spare parts unavailability. In many cases, habitability upgrades and steps to reduce crew requirements have been forgone in order to fund the maintenance of basic mechanical integrity. Where it is economically and operationally feasible to stretch an asset's employment beyond its originally projected service life, significant near-term AC&I savings can be realized that allow other high priority projects to be funded. However, such a strategy (undertaken to delay a burden on the Acquisition, Construction, and Improvement (AC&I) Appropriation) requires deliberate trade-off decisions by senior management to 1) pay a maintenance premium from the Operating Expenses (OE) Appropriation, and 2) accept less-than-optimal functionality and habitability. Such a strategy delays but does not resolve the capability gap that will ultimately be created by the end of the asset's structural or economic service life.

### SERVICE LIFE EXTENSION PROJECTS (SLEP)

Similar to deliberately operating assets beyond planned service lives through revised maintenance programs, SLEP is another strategy for delaying a projected capability gap. SLEP is an interim and typically less costly AC&I investment intended to extend an aging asset beyond its planned service life instead of replacing it, while bring its capabilities in line with requirements. For example, the Coast Guard's 210' medium endurance cutters were procured in the late 1960's. Based on a planned service life of 30 years, budget planners would normally anticipate replacement funding in the late 1990's. However, by investing approximately \$300M during this fleet's mid-life, the Coast Guard has modernized the fleet and extended its life another 20 years until 2010-2015. The Coast Guard is currently considering similar investment in its aircraft fleet, some of which are soon to reach the end of their service life. While this strategy extends an asset's life at a price well below full replacement, as with deliberate asset stretching above, the end is only delayed: the eventual capability gap is not eliminated.

### DEPARTURE FROM ONE-FOR-ONE REPLACEMENT

Improving productivity requires that Coast Guard planners consider the replacement of "capability" rather than the traditional replacement of an asset with an equivalent new asset. The Coast Guard has successfully leveraged vigorous mission analysis to seek fewer, more capable assets that can be operated at lower total ownership costs to provide the same or greater capability. A good example is the Coast Guard's sea-going and coastal buoy tender fleets. Ongoing program evaluation and Mission Analysis and pre-procurement concept exploration yielded a realistic plan to replace 37 cutters with 30. Exploring options of this nature offer significant opportunities for reduction in both AC&I costs and maintenance overhead and are part of a facility manager's routine program management responsibilities.

### A SYSTEMS APPROACH TO ACQUIRING CAPABILITY

The mandate for increasing productivity also drives the Coast Guard to evaluate all assets providing capabilities in a given operating environment. More global planning for *all* assets in a given regime (Deepwater; Coastal; Waterways; C4ISR; and Logistics Infrastructure) allows tradeoff decisions for the most effective mission accomplishment. For example, in light of recent Coast Guard investment in aircraft, aviation-based sensors may provide a better Return on Investment than ship-based sensors in meeting long-range surveillance requirements. Such a systematic approach allows the Coast Guard to leverage its current asset base and minimize the future investment burden.

## COMMERCIAL OFF-THE-SHELF (COTS) AND NON-DEVELOPMENTAL ITEMS (NDI)

To minimize non-recurring engineering costs (which increases the up-front cost of an acquisition) and to minimize risks associated with pioneering new or unique capabilities, increased reliance can be placed on capability produced in the commercial sector. COTS strategy seeks to procure readily available products from the market for which development costs are already amortized (e.g. desktop computers). Non-Developmental Items (NDI) are “state of the market five years from now” technologies that may not be readily available immediately, but that are nearing market entry and will be available when a new system is ready for entry into the fleet (e.g. unmanned surveillance aircraft). In addition to minimizing developmental costs, this strategy permits reliance on maintenance histories and support infrastructure already established (i.e. capitalized) in the private sector.

## LEVERAGING TECHNOLOGY

At the same time, the Coast Guard must circumspectly exploit technology advances to provide innovative solutions to mission accomplishment challenges. A sound Coast Guard asset management process begins with the Research and Development program scanning evolving technologies for Coast Guard applications. Accordingly, the Coast Guard’s developing business planning process works to better integrate its R&D program to achieve improved mission performance and cost. (i.e. a directorate’s business plan appendix D speaks specifically to R&D support desired by the Assistant Commandant).

## EXTENDING CURRENT ACQUISITIONS

This strategy deliberately reduces the per-year production of a current acquisition to reduce annual cash flow burdens on the Coast Guard’s AC&I appropriation. While this strategy meets the short-term need to remain within an annual AC&I target, the Service (and taxpayer) pays a three-fold penalty in the long-term.

1. First, opportunities to leverage production discounts through buying optimal economic order quantities are eliminated. As such, the contractor must pass on costs incurred by dragging out materials and labor costs over protracted periods.
2. Second, the Coast Guard often pays an OE premium to maintain an aging asset awaiting replacement: stretching out an acquisition delays potential savings that result from lower lifecycle costs of a new asset compared to the costs of the asset it replaces. For example, the Coast Guard realized \$1.3 million in recurring savings through replacement of older engines in its C-130 fleet. However, due to AC&I constraints, these savings were delayed as the AC&I project stretched over three years.
3. Third, extending acquisitions over a longer period increases the cost of acquisition overhead through project (staff and matrix) personnel and administrative costs applied over the extra time.

A multi-year strategy also increases the risk of interrupted funding in mid-acquisition, which could end up being very costly or perhaps lead to a capability gap.

## CROSS-APPROPRIATION TRADEOFFS

Typically, the Coast Guard has used only AC&I to fund asset acquisitions, and has done so within constrained budgets. Several factors are driving the Coast Guard to consider alternatives to funding portfolio management planning projects and capital asset acquisitions solely from AC&I.

- Recent changes to OMB Circular A-11 (Part III) have emphasized the requirement to plan for fully funding useful increments of acquisition projects, and have provided for a differentiation between useful planning increments and procurement increments. A useful planning increment may be applied to concept exploration, not specifically linked to a procurement as in the past. This unlinking of acquisition planning from actual asset procurement allows for use of other appropriations, e.g. R&D or OE.
- Increasingly, as assets rely on technological components to provide their basic capability (ship hulls may last 40 years, propulsion systems 20 years, and sensors and computers 2-5 years) the rapid rate of technological advances has made it increasingly difficult to use AC&I funds to ensure capability keeps pace with these changes. Establishment of alternative funding mechanisms to upgrade quick-

obsolescence components of larger assets or systems should be considered, e.g. working capital funds for C4I and IT components.

- All assets have outyear funding requirements to sustain capability. Historically, AC&I funds have been used to fund acquisition and OE has been used to fund O&M costs. Budget constraints have often forced us to economize in our acquisitions, leading to increased O&M costs, and often raising total ownership costs well above projections. Several considerations apply:
  - The application of the principle of “invest to save” discussed earlier is essential to ensure that we not only make the best acquisition decision, but the best life-cycle cost and capability decision.
  - When examining the total ownership cost of an asset, and determining the appropriate life-cycle balance between AC&I funding versus O&M funding, factors such as outlay rates of AC&I and OE must be factored in. AC&I funds are multi-year funds with annual outlay rates well below the 100% outlay rate of OE-sourced O&M funds. Over the life-cycle of the asset these will net out to being equal, however for budgeting purposes the ability to spread the outlay of funds sourced from AC&I often makes it desirable to favor spending proportionately more on the asset up front, and obtaining a more durable and less maintenance intensive asset rather than buying a cheaper asset with higher lifetime O&M cost.
- While overlap of projects between programs or projects (in terms of planning) is not a problem, duplication or redundancy is costly and wasteful and must be avoided. For example, the R&D center may be engaged in a project exploring the use of fuel cells as future shore-based or shipboard solutions for power generation or main propulsion, using R&D funds. If a specific AC&I project to replace Patrol Boats also considered use of Fuel Cells, it should draw from the knowledge gained from the R&D project rather than duplicate the effort. However, the WPB project may take the conceptual foundation provided by the R&D effort and expand on it, through the test and evaluation phase. The result of this effort should then be provided back to the R&D project. In this manner, different aspects of a project may be funded from different sources in a manner that the end result is a significantly more valuable final result at much lower overall cost than if the projects had been pursued independently.

## ALTERNATIVES TO OWNERSHIP

Past practice for federal agencies has been to rely heavily on owned assets to perform missions. While this allows for freedom to control an asset's configuration and employment, it often costs far more than use of leased platforms or “renting” capability from other agencies. In the midst of constrained investment funds, this approach must be reexamined. Lease and loan of capabilities are realistic alternatives to address capability gaps. For example, DOD assets in the past have provided significant maritime patrol flight hours in support of Coast Guard law enforcement efforts. Taking advantage of extant but underutilized DOD capacity has allowed the Coast Guard to avoid significant acquisition and maintenance costs. Other examples include leasing office space as an alternative to owning property for Marine Safety offices. Future capital asset planning is likely to rely on greater federal agency cooperation to share capabilities, interagency leasing of surplus capability, as well as leasing commercially available assets to meet short-duration operational requirements.

## LEVERAGING CROSS-FEDERAL FUNDS

The federal budget is grouped by functions for allotting budget authority and outlays. The Coast Guard's activities and investments are typically funded under Function 400 - “Transportation”. The old paradigm held that such functions essentially capped available resources for a given agency. However, as federal agencies partner to address significant cross-agency public policy concerns, this limiting paradigm may no longer apply. For example, the Office of National Drug Control Policy is seeking to coordinate funding of federal drug efforts consistent with national policy. In such a forum, funding for Coast Guard drug enforcement efforts may potentially be available in function 050 “National Defense”, function 150 “International Affairs”, or function 750 “Administration of Justice”. This era of cross-agency cooperation confronting public policy issues may be the time to challenge past fiscal fire walls which have thwarted efficient distribution of federal funds—fire walls that potentially deny the Coast Guard capital investment in assets to support accomplishment of Coast Guard goals.

### **ASSET SALE PROCEEDS**

Public Law 104-50, "Department of Transportation and Related Agencies Appropriations Act, 1996" granted the Commandant of the Coast Guard the authority to dispose of surplus real property by sale or lease with the proceeds returning to the Coast Guard's AC&I account. This authority was subsequently repeated in the Coast Guard's 1997 DOT Appropriations Act and is anticipated in future Appropriations Acts. The Coast Guard has realized proceeds that were reinvested in the Coast Guard's shore infrastructure. However, the Coast Guard is finding that the timing and value of surplus Coast Guard property is uncertain: federal property typically lacks zoning which influences potential value. Legislatively mandated transfers often preclude proceeds. Possible historic or environmental reuse restrictions devalue the property; and potential for a no-cost transfer to another federal agency or homeless interest (which is mandated in the federal property disposal process) may negate proceeds of a sale all together. Regardless, the Coast Guard is developing a mechanism by which planners, traditionally geared toward infrastructure acquisition, screen the current shore assets for divestment opportunities. Where asset disposal is feasible, funds will be reinvested in more appropriately sized, economical shore facilities.

### **SEEK FUNDING ABOVE TARGET LEVELS**

The budget process requires agencies to submit budget requests within constrained appropriation targets. Such targets establish flat-lined investment funding for the Coast Guard's near-term. As such, these targets may fail to adequately recognize the public's increasing (or decreasing) demand for Coast Guard services. For this reason, Coast Guard resource managers have an obligation to seek, in a responsible manner, AC&I funding consistent with established requirements, even if such funding exceeds outyear funding targets.

### **USER FEES**

As noted in Chapter 1, the Coast Guard has responsibility for providing maritime public goods that are best provided by the federal government. In some cases, it may be appropriate to charge the beneficiary of a Coast Guard service to cover capitalization expenses as well as operating expenses. However, the decision to charge user fees lies with policymakers above the Coast Guard and is not normally a strategy to which the Coast Guard can easily resort.

### **PARTNERSHIPS WITH STATE/LOCAL GOVERNMENTS OR PRIVATE PARTIES**

Partnerships with non-federal governmental or private entities can provide appropriate strategies. In the case of Coast Guard housing, construction lease-back agreements with local agencies or private firms offer the opportunity to forgo AC&I investments and use OE funds designated for leases to obtain housing for eligible personnel. Other situations, such as siting ATON structures on existing buildings, may eliminate the necessity to acquire land or build structures. Other alternatives may include joint use of property for siting several facilities owned by various entities on a Coast Guard facility, such as a VTS or air station. In each case, legislative authority would have to be obtained and proper lease agreements would have to be executed, but the investment of time in arranging the agreements can yield savings when compared to sole ownership of an asset.

## Making Difficult Capital Asset Decisions

All Coast Guard capital managers are faced with difficult decisions about where they should invest their capital, particularly in light of the shrinking purchasing power of today's federal budgets and the consequent need to prioritize and make trade-offs. Borrowing some concepts from corporate America, this section describes several tools that allow managers to make such decisions using common frames of reference. Fundamentally, these decisions must be based on where that investment is going to provide the greatest organizational benefit (i.e., maximize outcomes); now and in the future. The challenge is determining just where that greatest benefit is. While the full development of the supporting information to use these tools is not yet complete, Coast Guard resource manager understanding and application of these concepts must quickly mature to facilitate the significant investment decisions facing the organization.

### RETURN ON INVESTMENT

Resource options (be they capital asset alternatives or operational effort alternatives) should be evaluated on the basis of the degree to which alternative options contribute to the performance goals. Ideally, this should be done in quantitative terms. This simple concept can be explained in terms of *return on investment (ROI)*:

$$\text{Return on Investment} = \frac{\text{Value of outcomes}}{\text{Cost (lifecycle) of achieving outcomes}}$$

To maximize ROI, an organization must either :

- Maximize the value of the outcome achieved, or;
- Minimize the lifecycle cost of achieving those outcomes.

**Operational programs** (G-O and G-M) are responsible for developing strategies to maximize the outcomes (expressed in terms of public good outcomes such as increasing the number of lives saved, reducing the amount of oil spilled, etc.). In other words, operational programs are charged with improving program effectiveness. This can only be accomplished if the operating programs receive the necessary capital assets and material, as well as the human resources, from the logistics programs.

**Logistics programs** (G-S, G-A, and G-W) are responsible for delivering resources that meet the capability needs of the operating programs while at the same time minimizing the life cycle costs associated with doing so. The logistics programs must minimize overhead costs (e.g. by reducing the cost of a cutter-day, or by driving down the costs of providing capable petty officers, etc.).

Operational programs formally communicate such capability needs to the logistics program through their business plan appendices and the program evaluation process. However, there must be a robust and ongoing informal dialogue between the operating and support programs if the Coast Guard's effectiveness and productivity goals are to be realized.

The concept of return on investment provides a common yardstick to measure the value of Coast Guard investments that applies in both the operating and logistics arenas. It can be applied to managing existing assets (i.e., the Coast Guard's base funding) as well. That is, the application of existing resources to achievement of an outcome goal should be based on where that resource provides the greatest outcome. The Coast Guard's program managers' increasing ability to express this ROI (or ROA for existing assets) in quantitative terms will be indicative of the increasing maturity of the Service's application of these concepts. However, the difficulty of formulating such a comparison when dollar figures of outcome values are so intangible, cannot be overestimated.

Capital budgeting in the corporate world requires six steps:

1. Cost of the project must be determined.
2. Expected cash flows from the project, including the value of the asset at a specified terminal date, must be estimated.
3. Riskiness of projected cash flows must be determined (requiring information about probability distributions (uncertainty) of the cash flows.)
4. Given the riskiness of the projected cash flows, management must determine the appropriate cost of capital at which the project's cash flows are to be discounted.
5. Expected cash inflows are put on a present value basis to obtain an estimate of the asset's value to the firm.
6. Finally, present value of expected cash inflows is compared to the required outlay, or cost, of the project. If the asset's value exceeds its cost the project should be accepted. Otherwise the project should be rejected.

If an individual investor buys a stock or bond whose market price is less than its true value, the value of the investor's portfolio will increase. Similarly, if a firm identifies (or creates) an investment opportunity with a present value greater than its cost, the value of the firm will increase...and the more effective the firm's capital budgeting procedures, the higher the price of its stock.

Of the six steps enumerated above, we can really only do the first. What can we use, if anything, as a proxy for "cash inflows?" Using the productivity equation on page 29, the most appropriate answer is public good outcomes. However, placing dollar values on these public good outcomes is virtually impossible. Instead, we must concentrate on the same variables but accept that quantitative measurements of public good outcomes may take forms other than dollar amounts.

We know that increasing public good outcomes while holding costs constant (or reducing them) increases productivity. Similarly, we also know that driving life cycle costs down while improving or holding public good outcomes constant results in increased productivity. Quantitative measurements of these variables are necessary, not to determine an absolute ROI, but to be able to measure and forecast trends, and to be able to make tradeoff decisions between capital projects. Absent a convenient, across the board measure such as ROI or IRR, subjectivity will necessarily play a role. However, quantitative analysis will help to inform the process.

## A STRATEGIC LENS

Equally important as the concept of ROI in evaluating strategic investment alternatives is the concept of a strategic "lens" through which to consider strategic options. Regardless of how favorable the ROI may be, it is strategically important not to allow "good numbers" drive bad investment decisions. Such investment decisions must be made in the context of the strategic direction the organization desires. Comparing the investment alternatives within the context of an idealized future Coast Guard (in the light of the future operating environment), or in consideration of the core competencies (or sustainable competitive advantage) of this organization, is critical to making good capital investment decisions. Such a lens or "filter" is the product of regularly conducted strategic studies, such as the National Defense Panel or the Quadrennial Defense Review for the Department of Defense, or *Vision 2020* for the Coast Guard, or the Inter-agency Task Force on Roles and Missions study, among others. Such a filter describes the key attributes that a capital asset must have in order to be the best capital asset in the envisioned future. For example, the current draft of *Vision 2020* speaks to three key attributes that the future Coast Guard (and presumably its assets) must have to be successful: the discipline of an armed force, the synergy of multi-mission assets, and a capability to respond to shifting national priorities and interests.

## DECISION METHODOLOGY (SCORING CRITERIA) FOR CAPITAL PROJECTS

Proposed capital investments that are consistent with program business/performance plans are scored against four criteria by the Resource Group to determine the relative priority among competing items. The resulting

prioritized list will be the starting point for building a capital budget that is consistent with the funding targets described in the Long-Range Resource Allocation Plan. Program/resources staffs should consider these criteria in the development of RPs before they are forwarded. Individual RPs are scored on a scale ranging from 1 to 5, as defined by the following scoring guide (Figure 2-6):

Criteria	1	2	3	4	5
<b>Invest to Save:</b> Minimizes direct and indirect life-cycle costs associated with acquiring, maintaining and divesting each asset..	Disproportionate funding required to maintain/operate relative to mission performance and outcome. Significant increases in life cycle cost (i.e. overly maintenance intensive); support tail not adequately captured or developed.		Places the right capability, in the right place, at the right time, at the right cost. Relatively cost neutral; all support/training costs are accurately contained in budget request.		Leverages technology to reduce manning or perform mission with fewer, more capable assets. Lowers costs of labor/materials/other inputs required to effect outcomes; decreases maint costs; creates efficiency (e.g. co-location of units, etc)
<b>Reduce Out-year Recapitalization Requirements</b> through rigorous, on-going mission analysis and continual evaluation of technological improvements.	Mission analysis indicates trends counter to those which would require capabilities provided by this investment		Forecasted new market or increase in demand in existing market will be met by this capability		Investment will be able to meet numerous identified capability requirements; consistent with system-of-systems approach
<b>Mission Performance:</b> Represents integrated policy development with mission planning & execution. Properly supports performance goals (operations & logistics); a solution that addresses causal factors; resource that provides multi-mission capabilities.	Does not provide marked improvement in mission performance; does not contribute to near-term objectives of operations / logistics strategic goals.		Contributes to near-term objective of ops/logistics strategic goals. Improves mission achievement by reducing existing performance gap or prevents degradation. Provides resource to meet CG mandates.		Makes a significant contribution to several near-term objectives among the 8 operational & logistics strategic goals. Vastly improves known performance gap(s). Progresses toward mid / long-term objectives.
<b>Productivity of Investment:</b> Balances performance improvement with reduction of life cycle costs. Uses innovation, re-engineering and/or use of technology.	Cost of initiative exceeds benefits of performance gained. An unacceptable return on investment. Other alternatives should be considered. Results in an increase in cost.		Strikes an acceptable balance between performance & cost. Little or no improvement on current year or life cycle costs.		Facilitates productivity improvement, allowing for reinvestment of resources. Exceptional ROI for the CG and the American public.

Figure 2-6: Scoring Criteria

The ACP development effort highlighted the need for a Coast Guard investment board that will prioritize competing capital investment proposals and develop outyear capital investment strategies to maximize the organizational benefit from constrained AC&I and OE budgets. The Investment Board figures prominently in the capital planning process (see page 17 in Chapter 1). But prior to the Investment Board's involvement in the process, directorate business planners and the Resource Group must utilize decision rules which specifically focus on tracking cost, condition and performance of assets against baselines established at the time of acquisition of an asset or during Mission Analysis or asset upgrades. Simple decision trigger points based on the anticipated end of asset service life and required lead-time for recapitalization must be used in order to launch the review of specific asset recapitalizations. (Appendix D) Capital plant recapitalization estimates (Business Plan Appendix Bs and ACP Appendix A) must be updated annually to reflect the current inventory of assets, planned and economic service lives, and estimated replacement costs based on current

information. If annual review reveals that an asset or class of assets falls within the decision rules for review or recapitalization/divestiture action, Commandant (G-CRC) will coordinate such action with the appropriate Assistant Commandant. Upon completion of this review, findings will be documented and reported to the Investment Board and the Commandant. This management-in-use phase of the capital planning process aligns with the OMB *Capital Programming Guide*, and DOT and OMB directives.

## Conclusion

In summary, it is likely that Coast Guard resource managers will continue to be faced with an austere capital budget climate. Their success in the future will be judged not by how much funding they ask for (or even necessarily how much they receive), but rather by how well they manage current assets to meet operational requirements, how well they manage our current AC&I budget to that same end, and how strong a business case they present for any required additional funding. The foregoing strategies represent some, but not all such approaches. Each has its appropriate place in an effective capital management scheme, and should be applied by Coast Guard capital managers with due regard for the potential gains and risks of each strategic approach. Ultimately, an incentive system which rewards managers and decision-makers for identifying projects that will reduce costs and maximize outcomes will be the most effective means of efficiently managing a capital portfolio.

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# Appendix A:

## CAPITAL ASSET BASELINE INVENTORY

### Overview

This appendix consists of a series of Inventory Pages that describe the assets currently in the Coast Guard's capital base. It is arranged by the asset categories laid out earlier in this document: Deepwater, Coastal Zone, Waterways, C4ISR and Logistics/Support Infrastructure. The purpose of the inventory pages is to provide a standardized, compact overview of each of the classes or individual assets that, as components of a system of systems, provide the tools the Coast Guard employs in carrying out its mandated missions. As a package, the inventory pages form a picture of the "current state" of each of the five systems of systems around which the ACP is built. It is referred to in the OMB *Capital Programming Guide* discussion of Agency Capital Plans as the baseline against which all capital asset planning and management are measured and evaluated. For the purpose of the Coast Guard ACP, the inventory pages are the background against which capability gap analysis is conducted, requirements are validated, and current or future capital investments will be measured.

### Content and Format

The Asset Inventory Pages use a standard format that highlights all of the major attributes of the assets listed. The inventory sheets are arranged by system (Deepwater, Coastal, Waterways, C4ISR and Logistics); within each system the assets are grouped depending on the AC&I category (i.e. vessel, aircraft, shore, and other) into which the asset or class of assets falls. Table A-2 summarizes the asset inventory pages. Following Table A-2, each asset or class of assets is described by an inventory page. The Coast Guard Performance Goals supported by each asset/class of assets are indicated by a code which refers the reader back to Table A-1 on page A-2. The pages also discuss the details of the class; and the funding history and operating/maintenance cost related to maintaining asset capability. They review current and anticipated future efforts focusing on preserving or replacing the capability; and, where possible, graphically portray the history of investments in major/minor AC&I and OE (operations and maintenance) funding related to maintaining asset capability.

### Creating and Maintaining the Asset Inventory Pages

Program managers assigned responsibility for managing the assets listed in the inventory pages possess virtually all of the data that is contained in these inventory pages. The methods by which program and asset managers capture and maintain the data are left to the discretion of those individuals or program directors. However, whenever possible, programs should use standard data obtained from the core logistics/support manager for that asset (ELC for cutters, AR&SC for aircraft, etc.). As part of the business planning process, the compilation and submission of ACP-formatted Asset Inventory Pages is the responsibility of the designated asset manager: Business Plan Appendix B's are intended to provide capability requirements (see discussion of Business Plan appendices on page 9.). Updates to inventory pages need only be made once a year for submission to G-CPP. The 2001 ACP has utilized a spreadsheet with links to the Inventory Pages in order to facilitate and accelerate the process of updating them.

### Continuous Improvement of the ACP Baseline Inventory

As the concept of a cradle-to-grave asset portfolio management system matures, the Inventory Page section will be modified to reflect improving asset management abilities on the part of program managers. By the FY2002 ACP, fully supported performance-based ROE/ROI analysis will replace the current generic discussion of costs and capability maintenance. This analysis will include all operating and maintenance funding cash flows and include the results of periodic condition/functionality assessments.

## Linkage to Performance Plan

Table A-1 portrays the Coast Guard's Performance Goals. The assets described in the following pages are all linked to one or more of these goals: a section of each asset's description lists the pertinent goals. Additional information that links the investments described in these sheets to the annual performance goals and Coast Guard outcomes they support is available in the Coast Guard FY2000 Annual Performance Plan. As with the tracking of asset costs and condition throughout an asset's life cycle, linkage of the asset portfolio to the performance plan is an iterative process that will take several years to mature.

<b>CG STRATEGIC GOALS</b>	<b>MARITIME SAFETY</b>	<b>PROTECTION OF NATURAL RESOURCES</b>	<b>MARITIME MOBILITY</b>	<b>MARITIME SECURITY</b>	<b>NATIONAL DEFENSE</b>
<b>CG PERFORMANCE GOALS</b>	S1: Save all mariners in distress S2: Save all property in imminent danger S3: Eliminate crewmember fatalities on U.S. commercial vessels S4: Eliminate the risk of passenger vessel casualties S5: Eliminate recreational boating fatalities	P1: Eliminate oil discharged into the water P2: Eliminate plastics and garbage discharged into the water P3: Eliminate the adverse impacts of pollution P4: Improve the health of fish stocks and other living marine resources	M1: Maximize vessel mobility within ports and waterways M2: Eliminate vessel collisions, allisions, and groundings M3: Maintain navigation in ice-bound areas M4: Provide ice-breaking capability in polar regions	C1: Reduce the flow of drugs by denying maritime smuggling routes C2: Eliminate the flow of undocumented migrants entering via maritime routes C3: Eliminate illegal encroachment of the EEZ	N1: Achieve and sustain complete military readiness N2: Provide core military competencies

Table A-1: Coast Guard Performance Goals

<b>DEEPWATER ASSETS</b>		
<b>Vessels</b>		
399' POLAR Class Icebreaker (WAGB)		A-1.1
HEALY, Polar Ice Breaker (WAGB)		A-2.1
378' HAMILTON Class High Endurance Cutters (WHEC)		A-3.1
270' Famous Class Medium Endurance Cutters (WMEC)		A-4.1
210' RELIANCE Class Medium Endurance Cutters (WMEC)		A-5.1
110' Island Class Patrol Boat (WPB)		A-6.1
STORIS (WMEC)		A-7.1
ACUSHNET (WMEC)		A-8.1
ALEX HALEY		A-9.1
Cutter-based Boats (CB-L), (CB-M), (CB-S) and (MCB)		A-10.1
GENTIAN (WIX) (Caribbean Support Tender)		A-11.1
38' Deployable Pursuit Boats		A-12.1
<b>Aircraft</b>		
HC-130H, 4-Engine Turbo Prop Maritime Patrol Aircraft		A-13.1
HU-25 A/B/C 2-Engine Advanced Turbofan Jet Maritime Patrol Aircraft		A-14.1
HH-60J Twin-Engine Turbo-shaft MRR Helicopter		A-15.1
HH-65A Twin-Engine Turbo-shaft SRR Helicopter		A-16.1
MH-90 Twin-Engine Turbo-shaft Law Enforcement Helicopter		A-17.1

<b>COASTAL ASSETS</b>		
<b>Vessels</b>		
290' Great Lakes Icebreaker (WAGB)		A-18.1
225' JUNIPER Class Seagoing Buoy Tender (WLB)		A-19.1
180' Seagoing Buoy Tender (WLB)		A-20.1
175' Keeper Class Coastal Buoy Tender (WLM)		A-21.1
155'/133' Coastal Buoy Tender (WLM)		A-22.1
140' Icebreaking Tug (WTGB)		A-23.1
87' Coastal Patrol Boat (WPB)		A-24.1
82' Coastal Patrol Boat (WPB)		A-25.1
65' Harbor Tug (WYTL)		A-26.1
64' Aids-to-Navigation Boat (ANB)		A-27.1
55' Aids-to-Navigation Boat (ANB)		A-28.1
49' Stern-Loading Buoy Tender (BUSL)		A-29.1
47' Motor Lifeboat (MLB)		A-30.1
46' Stern-Loading Buoy Tender (BUSL)		A-31.1
45' Buoy Boat (BU)		A-32.1
44'/52' Motor Lifeboat (MLB)		A-33.1
41' Utility Boat (UTB)		A-34.1
30' Surf Rescue Boat (SRB)		A-35.1
21' Trailerable Aids-to-Navigation Boat (TANB)		A-36.1
Non-Standard Boats		A-37.1

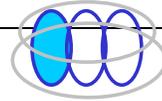
<b>Shore</b>	
Activities (ACT)	A-38.1
Air Stations (Large)	A-39.1
Air Stations (Small)	A-40.1
Air Facilities	A-41.1
Aids to Navigation Teams (ANTs)	A-42.1
Groups	A-43.1
Multi-Mission Stations	A-44.1
Marine Inspection Offices (MIO)	A-45.1
Marine Inspection Detachments (MIDET)	A-46.1
Marine Safety Offices (MSO)	A-47.1
National Vessel Document Center	A-48.1
National Maritime Center	A-49.1
Marine Safety Detachments (MSD)	A-50.1
Marine Safety Field Offices (MSFO)	A-51.1
Marine Safety Satellite Offices (MSSO)	A-52.1
Marine Safety Units (MSU)	A-53.1
Strike Teams	A-54.1
Port Security Units (PSU)	A-55.1

<b>WATERWAYS ASSETS</b>	
	
<b>Vessels</b>	
160'/100'/75' Inland Construction Tenders (WLIC)	A-56.1
Inland Buoy Tender (WLI)	A-57.1
River Buoy Tender (WLR)	A-58.1
<b>Shore</b>	
Vessel Traffic Service (VTS)	A-59.1
Aids to Navigation	A-60.1

<b>C4ISR ASSETS</b>	
	
<b>Aircraft</b>	
VC-4, twin-engine turbo prop Logistics Aircraft	A-61.1
C-20, twin-engine turbo fan Long Range Command & Control Aircraft	A-62.1
<b>Shore</b>	
Headquarters	A-63.1
Areas	A-64.1
Districts	A-65.1
Communications Stations	A-66.1
Section Offices	A-67.1
<b>Other</b>	
National Distress System/National Distress and Response System	A-68.1
Operational Systems	A-69.1
LORAN	A-70.1
NDGPS	A-71.1

<b>LOGISTICS/SUPPORT ASSETS</b>	
	
<b>Vessels</b>	
EAGLE	A-72.1
<b>Shore</b>	
USCG Finance Center	A-73.1
National Pollution Funds Center (NPFC)	A-74.1
Aviation Training Center (ATC)	A-75.1
Container Inspection Training and Assistance Teams (CITAT)	A-76.1
National Strike Force Coordination Center (NSFCC)	A-77.1
Engineering & Logistics Center (ELC)	A-78.1
Integrated Support Commands (ISC) & Closure Project Resident Office (CPRO)	A-79.1
Marine Safety Laboratory (MSL)	A-80.1
Operations Systems Center (OSC)	A-81.1
Research & Development Center (RDC)	A-82.1
Telecommunications & Information Systems Command (TISCOM)	A-83.1
CG Yard	A-84.1
CG Academy	A-85.1
CG Family Housing	A-86.1
USCG Reserve Training Center (RTC)	A-87.1
USCG Training Center Cape May	A-88.1
USCG Training Center Petaluma	A-89.1
Aviation Technical Training Center (ATTC)	A-90.1
Aircraft Repair and Supply Center (AR&SC)	A-91.1
National Motor Lifeboat School	A-92.1
Maintenance and Logistics Commands	A-93.1
Command and Control Center (C2CEN)	A-94.1
Personnel Command	A-95.1
Coast Guard Institute	A-96.1
Headquarters Support Command	A-97.1
LORAN Support Unit	A-98.1
Navigation Center	A-99.1
Intelligence Coordination Center	A-100.1
HR Services and Information Center	A-101.1
Uniform Distribution Center	A-102.1
<b>Bases</b>	A-103.1
Facility Design and Construction Centers (FD&CC)	A-104.1
Civil Engineering Units	A-105.1
Naval Engineering Support Units (NESU)	A-106.1
Electronics Support Units (ESU)	A-107.1
Recruiting Offices	A-108.1
<b>Other</b>	
Standard Workstation III	A-109.1
Financial Systems	A-110.1
Logistical Systems	A-111.1
Human Resource Systems	A-112.1
IT Infrastructure	A-113.1

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## ASSET

399-Foot POLAR Class Ice Breaker (WAGB)



## MISSION(S)

The 399-Foot POLAR Class Icebreaker performs extensive icebreaking and scientific support in the Arctic and Antarctica, as well as ice escort and polar surveillance. It is outfitted with the necessary equipment to fully execute various command, control, communications, computer, and intelligence (C4I) requirements for itself, and other operating facilities conducting Coast Guard missions in its Area of Operations (AOR).

The 399-Foot POLAR Class Icebreaker supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2	P1, P2, P3, P4	M1, M2, M3, M4	C3	N1, N2

## INVENTORY

USCGC POLAR STAR	(WAGB 10)	Seattle, WA	Commissioned: 1977
USCGC POLAR SEA	(WAGB 11)	Seattle, WA	Commissioned: 1976

## CAPABILITY

- (a) The two POLAR class vessels, POLAR STAR and POLAR SEA, are capable of continuous progress through ice six feet thick at a speed of three knots, and through 21 feet of multi-year ice by "back and ram" operations.

### Physical Characteristics

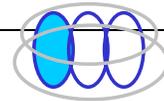
Length overall: 399 Feet  
 Beam: 84 Feet  
 Full Load Draft: 32 Feet  
 SHP: 21,000  
 Full Load Displacement: 13,190 Tons

### Aircraft Operation Capabilities

Certified types: HH65, HH60 (USCG)  
 Visual Landings Only

### Operational Characteristics

Crew: 134  
 Speed: 20 Knots  
 Cruising range: 28,000 Nautical Miles at 13 Knots(distance/speed)  
 Endurance: 80 Days (days unreplenished)  
 Maximum seas: 45 ft



(b) PESL: 2007-2012.

(c) Overall condition is fair-to-good. A ship's "structural and machinery evaluation" board convened and conducted in 1992 determined that there are no major structural problems, and with the Reliability Improvement Project (RIP), 15-20 years of service-life remain.

## FUNDING HISTORY

Acquisition Costs: **\$60,176,310**

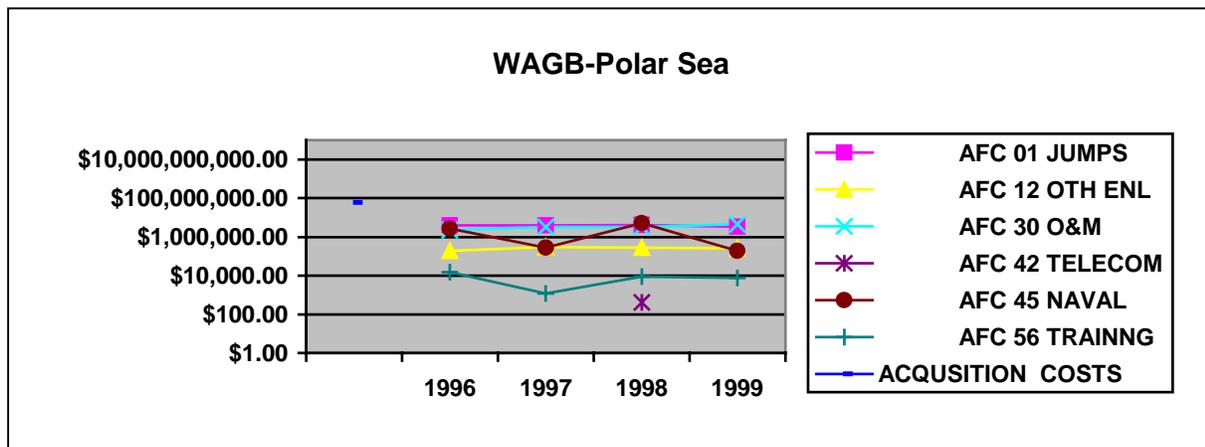
Average cost per unit (found in the ORACLE fixed asset module maintained by FINCEN). Includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management..

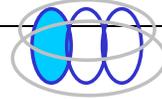
Actual operating expenditures: (direct cost data obtained from Web EIS-Corporate Database and coded specifically for WAGB Polar Class cost centers)

Polar Sea

	1996	1997	1998	1999 *
AFC 01 JUMPS	3,993,667.44	3,963,610.55	4,181,090.58	4,425,318.30
AFC 12 OTH ENL	192,426.18	302,926.77	275,978.52	341,952.31
AFC 30 O&M	2,298,854.00	3,230,146.36	3,197,443.72	5,940,525.40
AFC 42 TELECOM			408.69	
AFC 45 NAVAL	2,670,024.07	274,260.42	4,979,312.98	254,901.28
AFC 56 TRAINING	15,191.33	1,214.05	8,987.70	10,054.80

\* 1999 data are annualized figures using data through the third quarter of FY 1999

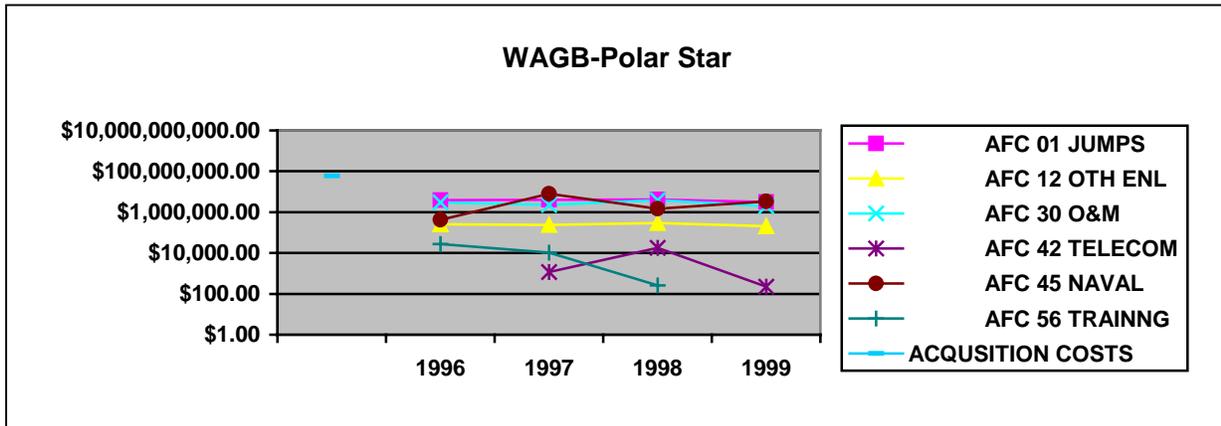




Polar Star

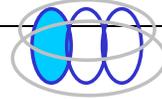
	1996	1997	1998	1999 *
AFC 01 JUMPS	3,851,112.53	4,010,365.82	4,155,799.19	4,227,661.60
AFC 12 OTH ENL	252,438.75	238,054.44	293,874.29	270,458.34
AFC 30 O&M	3,048,635.30	2,273,528.64	3,947,467.37	2,624,958.80
AFC 42 TELECOM		1,164.00	18,065.25	293.86
AFC 45 NAVAL	422,534.04	7,968,391.90	1,461,018.13	4,480,038.70
AFC 56 TRAINING	27,078.82	10,347.98	256	

\* 1999 data are annualized figures using data through the third quarter of FY 1999



## CURRENT PERSONNEL ALLOWANCE

Officer:	11
Warrant Officer:	4
Enlisted:	119
GS:	0
WG:	0
Contract:	0
<b>TOTAL:</b>	<b>134</b>



## ASSET

420-Foot USCGC HEALY (WAGB-20) High latitude research ship, and polar icebreaker.

## MISSION(S)

The HEALY supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2	P3, P4	M3, M4		N1, N2

## INVENTORY

USCGC HEALY (WAGB 20) Seattle, WA

## CAPABILITY

(a)

### Physical Characteristics

Length overall: 420 Feet  
 Beam: 82 Feet  
 Full Load Draft: 30 Feet  
 SHP: 30,000  
 Full Load Displacement: 16, 400 Tons

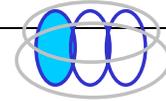
### Aircraft Operation Capabilities

Certified types: HH65, HH60 (USCG)  
 Visual Landings Only

### Operational Characteristics

Icebreaking: 4.5 feet continuous at 3.0 Knots, 8 feet ramming  
 Crew: 75 Military, 35 Scientists (with and additional "surge capacity" of 15)  
 Speed: 17 Knots Maximum, 12 Knots Cruising  
 Cruising range: No set speed or range  
 Endurance: No set range  
 Maximum seas: N/A

(b) PESL: 2030-2035.



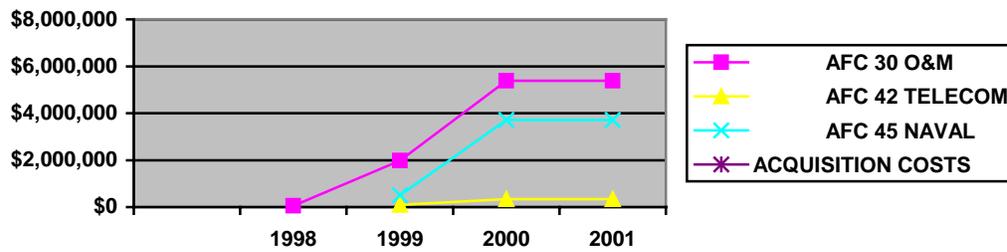
# FUNDING HISTORY

Acquisition Costs: see Appendix B

Budgeted Costs:

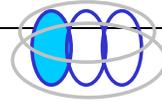
	1998	1999	2000	2001
AFC 30 O&M	\$56,000	\$1,986,000	\$5,388,000	\$5,388,000
AFC 42 TELECOM	\$0	\$100,000	\$344,000	\$343,000
AFC 45 NAVAL	\$0	\$500,000	\$3,711,000	\$3,711,000

USCGC-HEALY



# CURRENT PERSONNEL ALLOWANCE

Officer:	7
Warrant Officer:	3
Enlisted:	57
GS:	0
WG:	0
Contract:	0
<b>TOTAL:</b>	<b>67</b>



## ASSET

378-Foot (115M) Hamilton-Class  
High Endurance Cutter (WHEC)



## MISSION(S)

The 378-Foot HAMILTON class High Endurance Cutter (WHEC) is tasked with the mission to operate offensively in a low-to-medium density, multi-threat environment as a surveillance and interdiction platform, conducting general law-enforcement, and enforcing the Exclusive Economic Zones (EEZ) of the United States of America. When under the operational-control of the U.S. Navy, the HAMILTON class of cutters conduct surveillance and interdiction operations in protection of sea-lines of communication. The cutter can also make a limited contribution to battle group defense by supplementing more capable battle group assets. In addition, the 378' Foot HAMILTON class High Endurance Cutter provides its own limited Anti-Aircraft and Surface-Warfare self-defense. When operating independently, this ship should be restricted to low density threat operations.

The HAMILTON supports the following Coast Guard strategic and performance goals:

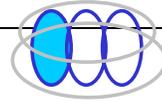
CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P1, P2, P3, P4	M1, M2	C1, C2, C3	N1, N2

## INVENTORY

USCGC HAMILTON	(WHEC 715)	San Diego, CA
USCGC DALLAS	(WHEC 716)	Charleston, SC
USCGC MELLON	(WHEC 717)	Seattle, WA
USCGC CHASE	(WHEC 718)	San Diego, CA
USCGC BOUTWELL	(WHEC 719)	Alameda, CA
USCGC SHERMAN	(WHEC 720)	Alameda, CA
USCGC GALLATIN	(WHEC 721)	Charleston, SC
USCGC MORGENTHAU	(WHEC 722)	Alameda, CA
USCGC RUSH	(WHEC 723)	Honolulu, HI
USCGC MUNRO	(WHEC 724)	Alameda, CA
USCGC JARVIS	(WHEC 725)	Honolulu, HI
USCGC MIDGETT	(WHEC 726)	Seattle, WA

## CAPABILITY

- (a) While this is the most sophisticated class of Cutters that the U.S. Coast Guard operates, there are significant concerns that need to be addressed in order that this cutter-class can maintain its effectiveness. These concerns lie mainly in the sensor and the command-and-control capabilities of the cutter-class. The U.S. Navy is also decreasing its inventory of the MK-75 Oto Malera and accompanying fire-control system, thereby phasing-out supportability for the main weapon system. This class is aircraft compatible with a flight deck, refueling capability and hangar.



**Physical Characteristics**

Length overall: 378' Feet  
 Beam: 42' Feet  
 Full Load Draft: 18 Feet, 9.25 Inches  
 SHP: 7,254  
 Full Load Displacement: 3,300 Tons

**Aircraft Operation Capabilities**

Certified types: HH65, HH60 (USCG)  
 Instrument and Visual Landings

**Operational Characteristics**

Crew: 162  
 Speed: 29 Knots  
 Cruising range: 11,000 Nautical Miles at 11 Knots (distance/speed)  
 Endurance: 21 days for Fuel; 16 days for Personnel (days unreplenished)  
 Maximum seas: N/A

(b) PESL: 2004-2007.

(c) The replacement or further improvement of these cutters will be determined as part of the **Deepwater Replacement Project**. The **Deepwater** concept evaluation will examine the appropriate mix of cutters and aircraft to perform all required missions, in the most cost-effective manner.

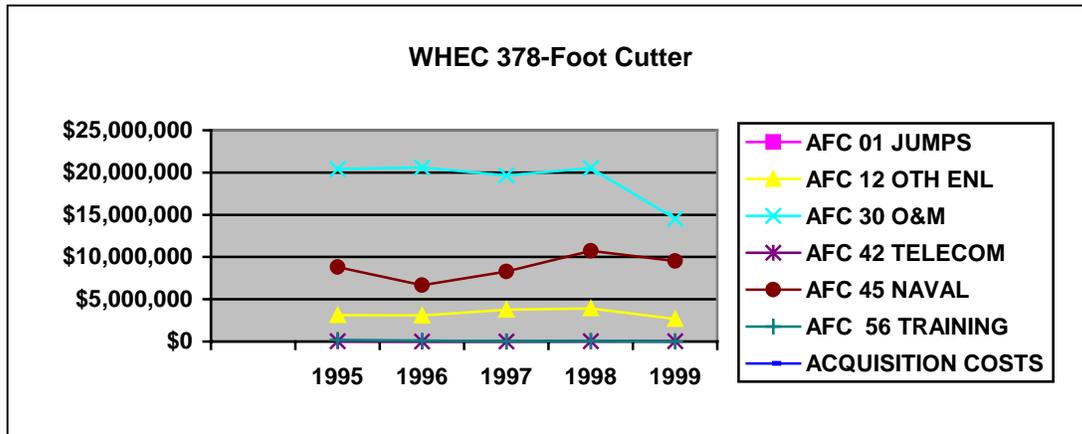
**FUNDING HISTORY**

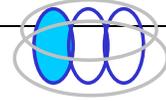
Acquisition Costs: **74,558,204.51** Unit cost (found in the ORACLE fixed asset module maintained by FINCEN). Includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management.

Actual operating expenditures: (direct cost data obtained from Web EIS-Corporate Database and coded specifically for WHEC 378' Class cost centers.)

	1995	1996	1997	1998	1999 *
AFC 01 JUMPS	54,832,577.60	55,483,776.53	55,994,922.56	57,580,881.19	43,945,149.74
AFC 12 OTH ENL	3,127,454.07	3,076,635.30	3,769,536.51	3,901,972.51	2,683,349.26
AFC 30 O&M	20,423,084.43	20,583,536.70	19,656,359.96	20,529,664.18	14,526,771.78
AFC 42 TELECOM	32,147.46	17,055.01	3,528.72	30,360.67	22,121.47
AFC 45 NAVAL	8,811,628.57	6,655,157.15	8,278,829.66	10,732,510.34	9,514,652.76

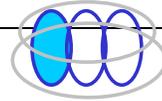
\* data available through third quarter FY 1999





## CURRENT PERSONNEL ALLOWANCE

Officer:	14
Warrant Officer:	4
Enlisted:	143
GS:	0
WG:	0
Contract:	0
TOTAL:	161



## ASSET

270-Foot (82M) FAMOUS-Class Medium Endurance Cutter (WMEC)



## MISSION(S)

The 270-Foot FAMOUS-Class Medium Endurance Cutter (WMEC) is tasked to operate offensively in a low-to-medium density multi-threat environment as a surveillance and interdiction platform, conducting general law-enforcement and enforcing the exclusive economic zones (EEZ) of the United States of America. When operating under Navy Operational-Control, the FAMOUS-Class cutters conduct surveillance and interdiction operations in protection of sea-lines of communication. The cutter can also make a limited contribution to battle group defense by supplementing more capable battle group assets. In addition, the 270' Foot FAMOUS-Class Medium Endurance Cutter provides its own local Surface Warfare self-defense. When operating independently, the ship should be restricted to low-density threat operations.

The FAMOUS-Class Medium Endurance Cutter supports the following Coast Guard strategic and performance goals:

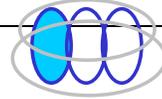
CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P1, P2, P3, P4	M1, M2	C1, C2, C3	N1, N2

## INVENTORY

USCGC BEAR	(WMEC 901)	Portsmouth, VA
USCGC TAMPA	(WMEC 902)	Portsmouth, VA
USCGC HARRIET LANE	WMEC 903)	Portsmouth, VA
USCGC NORTHLAND	(WMEC 904)	Portsmouth, VA
USCGC SPENCER	(WMEC 905)	Boston, MA
USCGC SENECA	(WMEC 906)	Boston, MA
USCGC ESCANABA	(WMEC 907)	Boston, MA
USCGC TAHOMA	(WMEC 908)	New Bedford, MA
USCGC CAMPBELL	(WMEC 909)	New Bedford, MA
USCGC THETIS	(WMEC 910)	Key West, FL
USCGC FORWARD	(WMEC 911)	Portsmouth, VA
USCGC LEGARE	(WMEC 912)	Portsmouth, VA
USCGC MOHAWK	(WMEC 913)	Key West, FL

## CAPABILITY

- (a) The thirteen FAMOUS-Class cutters began entering service in 1983, and are primarily assigned law-enforcement missions, defense operations, and search and rescue missions. Their law-enforcement missions include illegal-drug and illegal migrant interdiction, and fisheries enforcement. These ships can support and hangar one HH-65 or HH-60 helicopter.



**Physical Characteristics**

Length overall: 270 Feet  
 Beam: 38 Feet  
 Full Load Draft: 14 Feet  
 SHP: 7,290  
 Full Load Displacement: 1,820 Tons

**Aircraft Operation Capabilities**

Certified types: HH65, HH60 (USCG)  
 Instrument and Visual Landings

**Operational Characteristics**

Crew: 98  
 Speed: 19 Knots  
 Cruising range: 9,900 Nautical Miles at 12 Knots (distance/speed)  
 Endurance: 16 days Personnel; 21 days Fuel (days unreplenished)  
 Maximum seas: N/A

(b) PESL: 2009-2016.

(c) Like the HAMILTON class of cutters, the support for the main weapons system of the FAMOUS class of cutters is threatened by being phased-out of the U.S. Navy inventory.

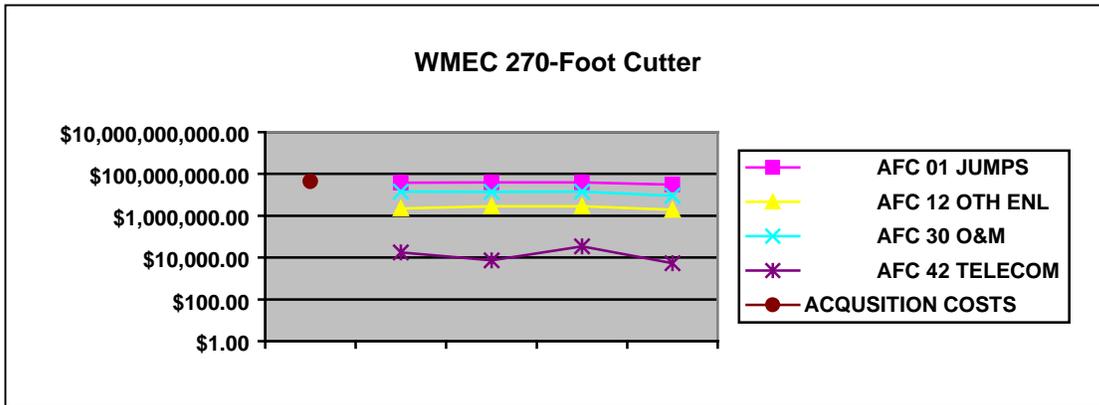
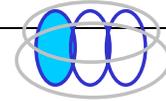
**FUNDING HISTORY**

Acquisition Costs: **44,263,985.27** Average cost per unit (obtained from data found in the ORACLE fixed asset module maintained by FINCEN). Includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. Costs have been averaged due to cost differentials.

Actual operating expenditures: (direct cost data coded specifically for WMEC 270 Class cost centers and obtained from Web EIS-Corporate Database.)

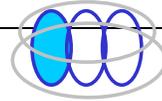
	1996	1997	1998	1999 *
AFC 01 JUMPS	37,806,676.31	38,910,843.69	39,826,809.59	30,741,021.56
AFC 12 OTH ENL	2,225,782.61	2,840,227.95	2,846,884.48	1,964,374.99
AFC 30 O&M	14,306,837.96	13,944,522.35	14,259,949.73	8,913,329.40
AFC 42 TELECOM	17,664.82	7,435.92	34,621.20	5,453.35
AFC 45 NAVAL ENG	7,746,715.00	6,908,143.00	7,101,923.00	5,857,680.00

\* data available through third quarter FY 1999



## CURRENT PERSONNEL ALLOWANCE

Officer:	11
Warrant Officer:	2
Enlisted:	85
GS:	0
WG:	0
Contract:	0
<b>TOTAL:</b>	<b>98</b>



## ASSET

210-Foot (64M) RELIANCE-Class Medium Endurance Cutter (WMEC)



## MISSION(S)

The 210-Foot RELIANCE-Class, Medium Endurance Cutter has the mission responsibility to conduct search and rescue missions, general law-enforcement, and enforcing the exclusive economic zones of the United States of America. The 210-Foot RELIANCE-Class, Medium Endurance Cutter can also perform support missions in support of U.S. Naval assets and national defense mission areas.

The RELIANCE-Class Medium Endurance Cutter supports the following Coast Guard strategic and performance goals:

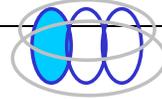
CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P1, P2, P3, P4	M1, M2	C1, C2, C3	N1, N2

## INVENTORY

USCGC RELIANCE	(WMEC 615)	Kittery, ME
USCGC DILIGENCE	(WMEC 616)	Wilmington, NC
USCGC VIGILANT	(WMEC 617)	Cape Canaveral, FL
USCGC ACTIVE	(WMEC 618)	Port Angeles, WA
USCGC CONFIDENCE	(WMEC 619)	Cape Canaveral, FL
USCGC RESOLUTE	(WMEC 620)	St. Petersburg, FL
USCGC VALIANT	(WMEC 621)	Miami, FL
USCGC COURAGEOUS	(WMEC 622)	Panama City, FL
USCGC STEADFAST	(WMEC 623)	Astoria, OR
USCGC DAUNTLESS	(WMEC 624)	Galveston, TX
USCGC VENTUROUS	(WMEC 625)	St. Petersburg, FL
USCGC DEPENDABLE	(WMEC 626)	Cape May, NJ
USCGC VIGOROUS	(WMEC 627)	Cape May, NJ
USCGC DURABLE	(WMEC 628)	St. Petersburg, FL
USCGC DECISIVE	(WMEC 629)	Pascagoula, MS
USCGC ALERT	(WMEC 630)	Astoria, OR

## CAPABILITY

- (a) The sixteen (16) RELIANCE-Class cutters were built between 1964 and 1969, and are primarily assigned law enforcement and search and rescue missions. They can support one HH-65 helicopter but have no hangar facilities. The last of the RELIANCE-Class of cutters completed **Major Midlife Availability (MMA)** in 1998.



**Physical Characteristics**

Length overall: 210 Feet  
 Beam: 34 Feet  
 Full Load Draft: 10.5 Feet  
 SHP: 5,000  
 Full Load Displacement: 1,020 Tons

**Aircraft Operation Capabilities**

Certified types: HH65 (USCG)  
 Visual Landings Only

**Operational Characteristics**

Crew: 75  
 Speed: 18 Knots  
 Cruising range: 6,100 Nautical Miles at 13 Knots  
 Endurance: 21 Days (days unreplenished)  
 Maximum seas: n/a

(b) PESL: 2001-2014.

(c) The last of the RELIANCE-class of cutters completed MMA in 1998.

**FUNDING HISTORY**

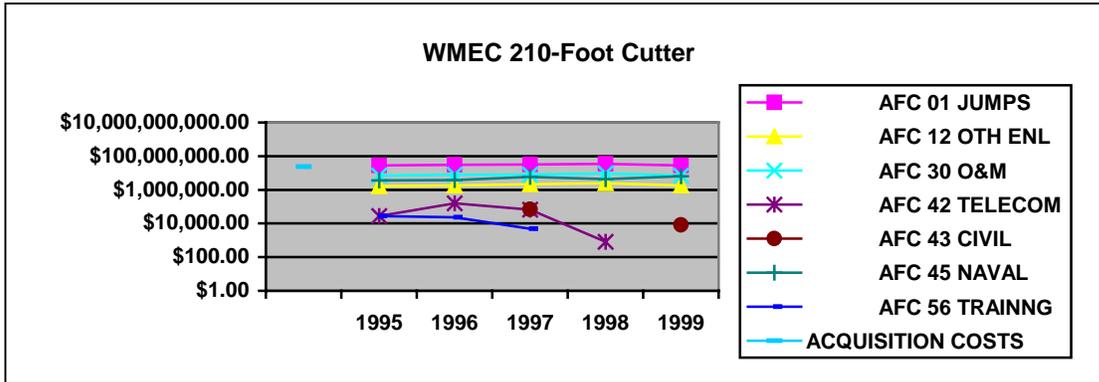
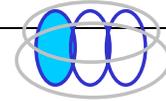
Acquisition Costs: **23,803,218.01**

Used unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. Costs have been averaged due to cost differentials. This is a "costs-per-vessel" average.

Actual operating expenditures: (information obtained from Web EIS-Corporate Database that has been coded specifically for WAGB Polar Class cost centers)

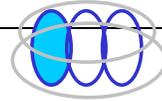
	1995	1996	1997	1998	1999 *
AFC 01 JUMPS	28,054,770.60	30,240,991.72	31,807,152.39	35,153,602.70	28,153,563.59
AFC 12 OTH ENL	1,622,229.41	1,789,157.52	2,115,858.70	2,424,742.94	1,813,286.28
AFC 30 O&M	6,991,489.74	7,908,016.17	7,894,237.15	9,456,778.56	7,097,344.64
AFC 42 TELECOM	27,909.93	158,057.24	64,991.37	802.17	
AFC 43 CIVIL			68,207.68		8,342.30
AFC 45 NAVAL	3,561,652.93	3,713,053.27	5,730,528.72	4,342,958.07	6,368,347.28

- data available through third quarter FY 1999



## CURRENT PERSONNEL ALLOWANCE

Officer:	11
Warrant Officer:	1
Enlisted:	63
GS:	0
WG:	0
Contract:	0
<b>TOTAL:</b>	<b>75</b>



## ASSET

110-Foot Patrol Boat (WPB)

## MISSION(S)

The 49 110-Foot ISLAND-Class Patrol Boats were commissioned between 1986-1992 in three classes (A, B, and C). The primary difference between the classes is in the configuration of the interior spaces, and Hulls 1338-1349 have Caterpillar Engines instead of Paxman Valenta Engines. The ISLAND class cutters are tasked with operating in a low-to-medium intensity, multi-threat environment as a surveillance and interdiction platform, conducting law-enforcement operations, defense operations, search and rescue missions, and marine and environmental response.



The 110-Foot ISLAND-Class Patrol Boats support the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S5	P4	M1	C1, C2, C3	N1, N2

## INVENTORY

**Atlantic Area:** 35  
 District One: 7  
 District Five: 3  
 District Seven: 21  
 District Eight: 4

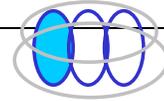
**Pacific Area:** 14  
 District Eleven: 3  
 District Thirteen: 2  
 District Fourteen: 4  
 District Seventeen: 5

## CAPABILITY

The ISLAND class cutters were originally designed as a “stop-gap” patrol boat between decommissioning of the 95-Foot CAPE-Class cutters and the construction of the 120-Foot HERITAGE-Class of cutters. The HERITAGE-Class cutters never made it to full construction and the ISLAND-Class cutters were no longer viewed as “stop-gap.” A hull Ship Alteration (SHIPALT) was developed and installed to enhance service-life.

Drug Interdiction, Alien Migration Interdiction Operation (AMIO), Fisheries Enforcement, and Search and Rescue (SAR) missions are the main missions of the ISLAND-Class cutters. With the need for greater counter-drug efforts, the 110’ Foot Patrol Boats have responded with more operating hours and deployments. Significantly increased drug enforcement efforts have highlighted the need for technological advancements such as night-time sensors for locating smugglers, and communications suites for multi-unit and extended deployments.

Three “Ship’s Structure and Machinery Evaluation Boards (SSMEBs) were convened between 1996 and 1998. The “A” and “B” class of 110’ Foot cutters (1301-1337) have a projected-service-life of 2008 or greater, based on SSMEB finding. Since these cutters operate extensively in the **Deepwater** mission, their replacement or overhaul will be evaluated as part of the **Deepwater Replacement Project**.



**Physical Characteristics**

Length overall:	110 Feet
Beam:	21 Feet
Full Load Draft:	8 Feet
SHP:	5760 (Two Paxman Valentas or Two Caterpillar 3516s)
Full Load Displacement:	160 Tons (Minor variance between classes)

**Operational Characteristics**

Crew:	16
Speed:	29.5 Knots ("C" Class is 26 Knots)
Armament:	One 25mm (MK38) and Two .50 Caliber Machine Guns
Maximum range:	3,000 Nautical Miles at 12 Knots (Minor variance among classes)
Endurance:	5 Days (10 Days with replenishment)
Maximum seas:	Operate through sea-state 5

**Design Service Life:** Originally designed with a 15-year service-life. Hull strengthening Ship Alteration (SHIPALT) extended service-life to 25 years.

## FUNDING HISTORY

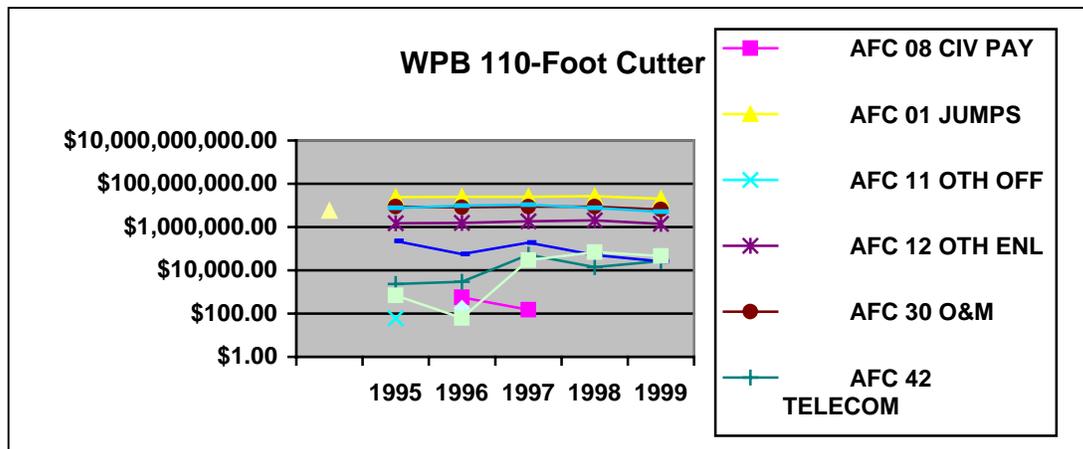
Acquisition Costs: **5,622,886.69**

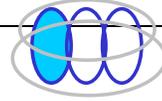
Unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. Costs have been averaged due to cost differentials.

Actual operating expenditures: (information obtained from Web EIS-Corporate Database that has been coded specifically for WPB 110' Class cost centers.)

	1995	1996	1997	1998	1999 *
AFC 01 JUMPS	24,152,576.72	24,565,038.38	25,208,554.85	26,365,794.34	20,568,147.37
AFC 12 OTH ENL	1,492,506.10	1,531,233.46	1,810,033.91	2,017,396.58	1,424,450.99
AFC 30 O&M	8,830,817.50	8,106,685.09	8,606,303.59	8,843,962.70	6,334,508.26
AFC 42 TELECOM	2,309.25	2,944.28	51,918.24	13,948.06	26,555.75
AFC 43 CIVIL	225,716.06	55,426.57	193,334.85	51,286.88	25,545.09
AFC 45 NAVAL	7,540,452.39	9,744,437.68	10,777,769.77	7,569,796.86	5,031,625.31

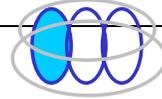
\* data available through third quarter FY 1999





## CURRENT PERSONNEL ALLOWANCE

Officer:	2
Enlisted:	14
GS:	0
WG:	0
Contract:	0
TOTAL:	16



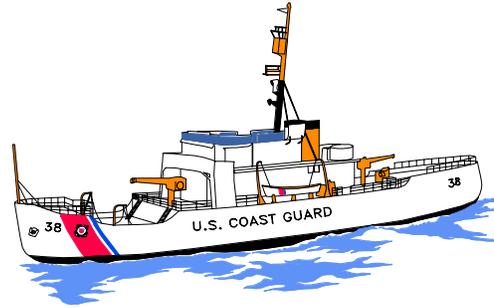
**ASSET**

USCGC STORIS (230-Foot WMEC)

**MISSION(S)**

General law-enforcement and search and rescue (SAR).

The 230-Foot STORIS class Medium Endurance Cutter supports the following Coast Guard strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P1, P2, P3, P4	M1, M2	C1, C2, C3	N1, N2

**INVENTORY**

USCGC STORIS (WMEC 38) Kodiak, AK

**CAPABILITY**

- (a) The USCGC STORIS was built in 1941 and performs fisheries enforcement and Search and Rescue (SAR) missions.

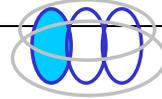
**Physical Characteristics**

Length overall: 230 Feet  
 Beam: 43 Feet  
 Full Load Draft: 15 Feet  
 SHP: 1800  
 Full Load Displacement: 1,920 Tons

**Operational Characteristics**

Crew: 78  
 Speed: 14 Knots  
 Cruising range: 22,000 Nautical Miles at 8 Knots (distance/speed)  
 Endurance: 21 Days (days unreplenished)  
 Maximum seas:

- (b) **PESL:** To Be Determined (TBD).



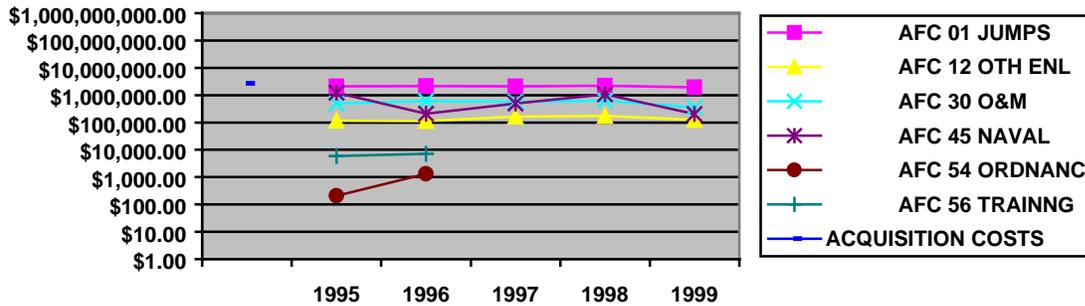
## FUNDING HISTORY

Acquisition Costs: **2,675,000.00**

Unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. The USCGC STORIS is a "one of a kind" vessel, and therefore the acquisition cost indicated above is unique to this vessel.

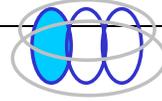
Actual operating expenditures: (information obtained from Web EIS-Corporate Database that has been coded specifically for USCGC STORIS cost center.)

	1995	1996	1997	1998	1999
AFC 01 JUMPS	2,079,144.	2,131,112	2,085,447.27	2,214,427.95	1,960,149.22
AFC 12 OTH ENL	116,479.65	112,790.06	165,863.02	173,376.77	125,239.78
AFC 30 O&M	496,011	615,871.96	583,689.66	621,210.89	359,208.30
AFC 45 NAVAL	1,244,665.51	209,746.31	496,186.87	1,073,237.75	205,240.83



## CURRENT PERSONNEL ALLOWANCE

Officer:	9
Warrant Officer:	1
Enlisted:	68
GS:	0
WG:	0
Contract:	0
TOTAL:	78



## ASSET

USCGC ACUSHNET (213-Foot WMEC)

## MISSION(S)

General law-enforcement and Search and Rescue (SAR) missions.

The ACUSHNET supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P1, P2, P3, P4	M1, M2	C1, C2, C3	N1, N2

## INVENTORY

USCGC ACUSHNET (WMEC 167) Ketchikan, AK

## CAPABILITY

(a) The USCGC ACUSHNET was built in 1942 and performs fisheries enforcement and Search and Rescue (SAR) missions.

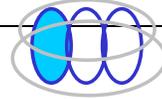
### Physical Characteristics

Length overall: 213 Feet  
 Beam: 41 Feet  
 Full Load Draft: 15 Feet  
 SHP: 3,000  
 Full Load Displacement: 1,750 Tons

### Operational Characteristics

Crew: 76  
 Speed: 15 Knots  
 Cruising range: 9,000 Nautical Miles at 15 Knots  
 Endurance: 21 Days (days unreplenished)  
 Maximum seas: n/a

PESL: To Be Determined (TBD)



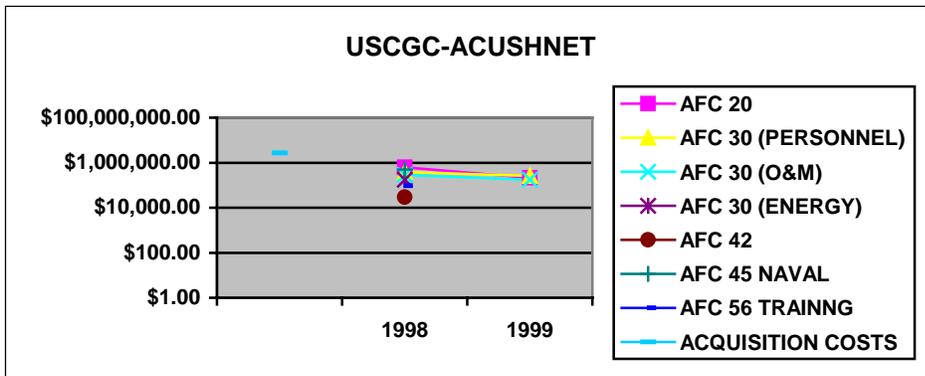
## FUNDING HISTORY

Acquisition Costs: **2,675,000.00**

Unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. The USCGC ACUSHNET is a "one of a kind" vessel: the acquisition cost is unique to this vessel.

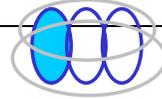
	1998	1999 *
AFC 20	626,106	209,920
AFC 30 (PERSONNEL)	383,687	262,399
AFC 30 (O&M)	284,960	173,661
AFC 30 (ENERGY)	173,842	197,237
AFC 42	29,660	30,075
AFC 45 NAVAL	496,756	493,615

\* data available through third quarter FY 1999



## CURRENT PERSONNEL ALLOWANCE

Officer:	8
Warrant Officer:	1
Enlisted:	66
GS:	0
WG:	0
Contract:	0
TOTAL:	75



## ASSET

USCGC ALEX HALEY (282-Foot WMEC)

## MISSION(S)

The 282-Foot Medium Endurance Cutter, USCGC ALEX HALEY, conducts search and rescue missions, general law-enforcement, and enforcement of the exclusive economic zones of the United States of America. The ALEX HALEY can also perform support missions in support of U.S. Naval assets and national defense mission areas.

The ALEX HALEY supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P1, P2, P3, P4	M1, M2	C1, C2, C3	N1, N2

## INVENTORY

USCGC ALEX HALEY (WMEC 39) Kodiak, AK

## CAPABILITY

- (a) The USCGC ALEX HALEY was built in 1971, and underwent a major retrofit in 1999. It's primary mission will be fisheries enforcement and Search and Rescue (SAR) missions.

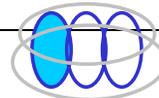
### Physical Characteristics

Length overall: 282 Feet  
 Beam: 50 Feet  
 Full Load Draft: 15.1 Feet  
 SHP: 6,000  
 Full Load Displacement: 3,000 Tons

### Operational Characteristics

Crew: 99  
 Speed: 16 Knots  
 Cruising range: 10,000 Nautical Miles at 13 Knots  
 Endurance: To Be Determined  
 Maximum seas: To Be Determined

- (b) PESL: To Be Determined.

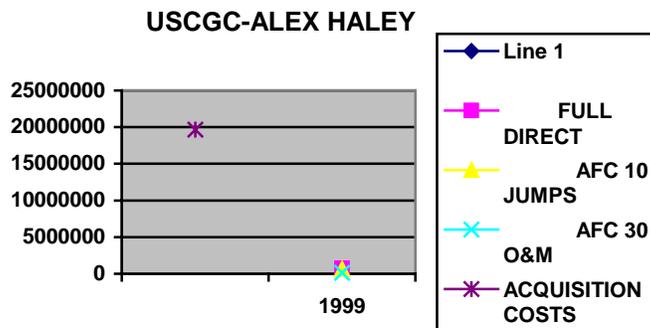


## FUNDING HISTORY

Acquisition Costs: **19,666,000.00** Unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management.

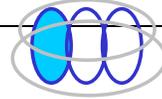
Budgeted Costs

	1999
FULL DIRECT	746,825.65
AFC 01 JUMPS	629,421.32
AFC 30 O&M	117,404.33



## CURRENT PERSONNEL ALLOWANCE

Officer:	8
Warrant Officer:	1
Enlisted:	90
GS:	0
WG:	0
Contract:	0
<b>TOTAL:</b>	<b>99</b>



## ASSET

Cutter Boats:

Rigid Inflatable Boats

- Large (CB-L) (pictured at right)
- Medium (CB-M)
- Small (CB-S)

Motor Surf Boat (MSB)



## MISSION(S)

There are over 450 cutter boats in service. They exponentially increase the effectiveness of the ship to which they are assigned, contributing heavily in the SAR, Law Enforcement, and ATON missions. RIBs are routinely used to transport boarding teams, interdict migrants, carry out environment missions (i.e. deploy oil booms), service buoys and dayboards, and conduct training. The MSB, while being less frequently used, provides important heavy weather and towing capabilities. Other types of boats, including ice skiffs, LCVPs, and UTLs, provide specific capabilities to ice breakers and buoy tenders.

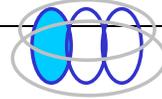
The Cutter Boats support the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P3, P4	M1, M3	C1, C2, C3	N2

## INVENTORY

This is a condensed listing of small boats attached to cutters. Not all cutters in a given class carry the same number or type of small boats; the miscellaneous boats listed include LCVPs, UTLs, and ice skiffs.

<i>Cutter Class</i>	<i># Cutters in Class</i>	<i>Boats Assigned</i>
399' POLAR Class Icebreaker (WAGB)	2	1 MSB, 1 CB-L, 2 misc.
HEALY Class Icebreaker (WAGB)	1	2 CB-L, 3 misc.
378' HAMILTON Class (WHEC)	12	1 MSB, 1 CB-L
270' FAMOUS Class (WMEC)	13	1 MSB, 1 CB-L
210' RELIANCE Class (WMEC)	16	1 MSB, 1 CB-L
ALEX HALEY (WMEC)	1	2 CB-L
STORIS (WMEC)	1	1 MSB, 1 CB-L
ACUSHNET (WMEC)	1	1 MSB, 1 CB-L
110' WPB	49	1 CB-M
87' WPB	16	1 CB-S
82' WPB	21	1 CB-M (87)
290' MACKINAW Class Icebreaker	1	1 MSB, 1 CB-L, 1 misc.
225' JUNIPER Class Buoy Tender (WLB)	5	2 CB-L
180' Seagoing Buoy Tender (WLB)	16	1 CB-L, 1 misc.
175' Keeper Class Buoy Tender (WLM)	9	1 CB-M, 1 misc.
155'/133' Coastal Buoy Tender (WLM)	1	1 CB-M
140' Icebreaking Tug (WTGB)	8	1 CB-M
65' Harbor Tug (WYTL)	11	1 CB-S



## CAPABILITY

Three of the major cutter boat types are currently in the option years of their procurement contracts. All MSBs have been purchased. The expected service life of a cutter boat is 5-7 years.

Physical Characteristics	CB-L	CB-M	CB-S	MSB
Length Overall:	22' 6"	18' 4"	15' 5"	25' 9"
Beam:	8' 6"	7' 6"	6' 7"	7' 1"
Full Load Draft:	1' 4"	1' 4"	1' 4"	1' 9"
SHP:	135	90	50	130
Full Load Displacement:	4025lbs	1575lbs	796lbs	5557lbs

Operational Characteristics	CB-L	CB-M	CB-S	MSB
Crew:	2	2	2	2
Speed:	35 knots	35 knots	26 knots	16 knots
Cruising range: (Dist/speed)	160NM	80NM	70NM	60NM
Maximum Seas:	4'	4'	4'	6'
Maximum Wind:	20 knots	20 knots	20 knots	30 knots

## FUNDING HISTORY

- (a) From FY97 to FY00, 49 CB-L were purchased from Zodiac for an average cost of \$50,004 per boat.
- (b) From FY97 to FY00, 48 CB-M were purchased from Zodiac for an average cost of \$20,899 per boat.
- (c) From FY97 to FY00, 26 CB-S were purchased for an average cost of \$16,173 per boat. The initial 13 boats were manufactured by Avon, and the last 13 from Zodiac of North America.
- (d) 55 MSBs were purchased: The first 20 cost \$100,000 per boat, and the remaining 35 cost \$94,000 per boat.

Budgeted Costs:

AFC-45: (per boat) \$379 for all classes.

AFC-30: (per boat)

MSB: \$2,824

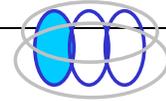
CB-L: \$12,601

CB-M: \$4,000

CB-S: \$1,738

## CURRENT PERSONNEL ALLOWANCE

All cutter boats are crewed by the cutter to which they are assigned.



# ASSET

USCGC GENTIAN, 180-Foot Caribbean Support Tender (WIX-290)

## MISSION(S)

**Primary Missions:**

- International engagement; deliver full maintenance & training package; OP VISTA & TRADEWINDS vessel.
- Provide CINC support for international programs, exercises, operations (ERC projects, Deployments for Training, JCETS, Humanitarian Aid, Community Relations, etc.)
- Support vessel for combined operations; mother-ship for international vessels; common link to U.S. vessels and filter for sensitive intelligence information; CARIBE VENTURE, HALCON, etc.
- Int’l Enlargement: demonstrate democratic principles, support embassy ambassadors/country teams.

**Secondary Missions:**

- NGO partnerships; Caribbean Disaster Relief Exercise and Response platform.
- Surge Platform (add appropriate expertise such as LEDET) for counter-drug operations, hurricanes, mass migration, or oil spills.
- Support Tender for forward-deployed PBs/PCs for pulse operations in the deep Caribbean.

The GENTIAN supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2	P3, P4		C1, C2, C3	N1, N2

## INVENTORY

<u>Hull</u>	<u>Name</u>	<u>Homeport</u>
290	USCGC GENTIAN	Miami, FL

## CAPABILITY

USCG GENTIAN is a 180-Foot ex-buoy tender (SLEP); low cost, reliable vessel with 120,000 pounds of cargo carrying capacity; berthing for 58; shop/repair capability; onboard training capability, exportable across the region.

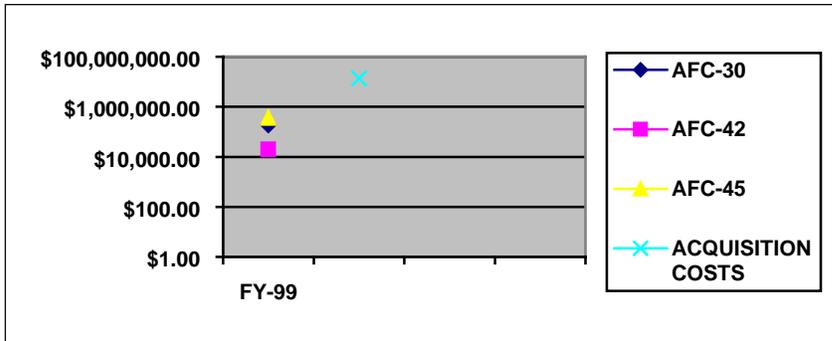
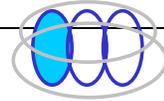
## FUNDING HISTORY

Acquisition Costs: N/A (see 180’ WLB inventory page)

Budgeted Costs

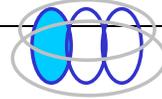
	<u>FY-99</u>
AFC-45:	\$357,000
AFC-42:	\$20,000
AFC-30:	\$183,000

Source: Budget Model



## CURRENT PERSONNEL ALLOWANCE

Officer:	2
Warrant Officer:	1
Enlisted:	32
GS:	0
WG:	0
Contract:	0
TOTAL:	35



## ASSET

38' (12M) Deployable Pursuit Boat (DPB)



## MISSION(S)

Deployable Pursuit Boats are focused maritime law enforcement assets intended to counter the quickly growing and largely successful drug “go-fast” threat. Deployed in pairs and working from a support platform within the Transit Zone, these “end game” resources respond to tactical intelligence provided by Detection and Monitoring assets, intercepting fast boat targets suspected of transporting narcotics. Once an intercept is accomplished, embarked DPB law enforcement crews can quickly conduct boardings, preserve evidence, prevent the scuttling of vessels and effect arrests and seizures as necessary.

The Deployable Pursuit Boats support the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS				C1	

## INVENTORY

Presently, TACLET North in Portsmouth, VA and PACAREA TACLET in San Diego each have two Deployable Pursuit Boats assigned. Two Deployable pursuit boats, in a different configuration, are currently employed by TACLET 7 in Miami, FL. These two boats are expected to be replaced by two standard Deployable Pursuit Boats.

## CAPABILITY

Since DPB's are new assets, not intended to replace other existing resources, capability preservations is presently limited to ensuring appropriate follow-on funding is provided to properly maintain the boats. Re-capitalization of these boats will commence in FY-03.

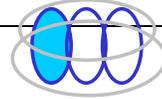
The fielding of this new resource provides the Coast Guard the opportunity to evaluate its operational effectiveness, making way to incorporate its desirable attributes into other multi-mission resources.

### Physical Characteristics:

Length overall: 39' 2"  
 Beam: 9' 7"  
 Full Load Draft: 3'  
 SHP: 2x 420 HP Yanmar Diesel Engines  
 Full Load Displacement: 10,900 lbs

### Operational Characteristics:

Crew: 4-6  
 Speed: 65+ mph  
 Cruising range: 300NM/ 40 mph  
 Endurance: (days un-replenished) 1  
 Maximum seas: 10 ft  
 Maximum winds: 30 knots



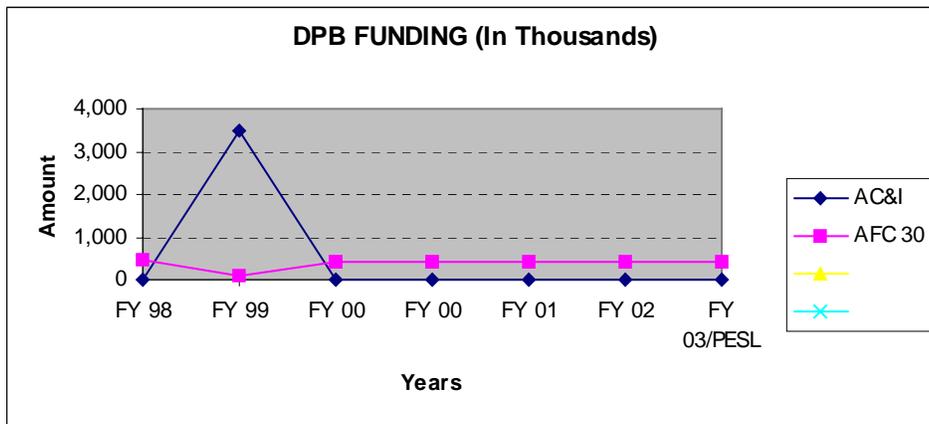
Estimated service life; 5 years.

## FUNDING HISTORY

The DPB Proof of Concept began in FY-98 with the purchase of two Fountain Powerboats from an existing Government contract. ~\$450K in funds was provided for this purchase (\$210K ea.) and proper outfitting of the boats. In FY-99, \$3.5M in AC&I supplemental drug funding was provided to purchase eight additional DPB's. Four will be carried aboard two reactivated USN T-AGOS vessels, the others will be supported in conjunction with another type of support vessel. Proper annual maintenance and electronics support is expected to cost ~\$55K per boat

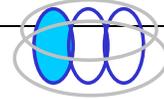
Budgeted Costs (per boat)

	Annual Funding
AFC 30 O&M	\$55,000
AFC 42 TELECOM	5,000
AFC 45 VESSEL MAINT	5,000



## CURRENT PERSONNEL ALLOWANCE

All boats are crewed by the TACLET to which they are assigned.



## ASSET

The HC-130H "Hercules" is the Coast Guard's Long Range Search (LRS), 4-engine turboprop, maritime patrol aircraft. There are three series of "H" model C-130's; 1500, 1600, and 1700. All aircraft are equipped with powerful sea-search radar; the 1500 series are also equipped with Side-Looking Airborne Radar (SLAR).



## MISSION(S)

The HC-130H is a multi-mission airplane capable of supporting all Coast Guard missions and strategic goals. The 4-engine Hercules conducts long-range maritime patrols, search and rescue, in-flight delivery of rescue equipment, and personnel and logistics transport. The HC-130H's fuselage is modified to include large search windows in the cargo compartment. The APS-137 radar enhances search and detection capabilities. All HC-130H's are going through extensive sensor upgrades.

The HC-130H supports the following Coast Guard strategic and performance goals:

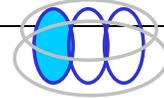
CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2	P1, P2, P3, P4, P5	M4, M5	C1, C2, C3	N1, N2

## INVENTORY

Air Station	Acft/Series
Elizabeth City, NC	5 (1500s)
Clearwater, FL	7 (1700s)
Sacramento, CA	4 (1600s and 1700s)
Kodiak, AK	6 (1700s)
Barbers Point, HI	4 (1700s)
Support	4 (out of service for modification or overhaul)
Total	30

## CAPABILITY

(a) General: The HC-130H Hercules is programmed to fly 800 hours per year per aircraft. The Hercules has the longest range and endurance capabilities of all Coast Guard aircraft. It is regularly deployed to forward operating bases for law enforcement, logistics, and ice patrol missions. The HC-130H is certified for all-weather operation. The aircraft is equipped with an auto-pilot system to reduce cockpit workload and fatigue during extended operations. All HC-130H's can perform aerial drops of rescue equipment by means of a moveable ramp and door at the rear of the aircraft. This ramp and door can also be opened on the ground to aid in loading and unloading of large cargo items such as helicopters, vehicles, or boats. The aircraft is capable of operating from short, unprepared runways/airfields. The HC-130 can deliver personnel and equipment via parachute.

Physical Characteristics:

Length: 100ft  
 Wingspan: 133 ft  
 Height: 39ft  
 Weight: 155,000 lbs max gross

Operational Characteristics:

Crew: 7 (two pilots, one flight engineer, one navigator, one radio operator, one dropmaster, one loadmaster.)  
 Speed: max 310 kts; cruise 250 kts(dependent on altitude)  
 Cruising range: Varies with altitude – 4000 miles  
 Cargo capacity: Up to 40,000 lbs (varies greatly with fuel loads and takeoff/landing conditions)

(b) Sensors: All HC-130H's are equipped with the APS-137 sea search radar. This sensor is capable of long-range detection and classification of maritime vessels. Small profile vessels can also be detected. The 1500 series aircraft are capable of carrying a SLAR unit that is primarily used to detect and track icebergs in the North Atlantic for the International Ice Patrol mission. All aircraft are equipped with a traffic collision and avoidance system (TCAS) to enhance aircrew situational awareness and reduce the risk of conflict with other aircraft. All aircraft are being modified to carry a comprehensive, roll-on/roll-off sensor package, including a modern Forward Looking Infrared (FLIR) and low-light /telescopic camera suite. Fifteen of these systems will be distributed among all HC-130H air stations.

(c) Communications: All aircraft are equipped with UHF, VHF-FM marine band, VHF AM, secure communications. All aircraft are being modified for MILSATCOM.

(d) Navigation: All aircraft are equipped with inertial navigation systems (INS), GPS, TACAN, VOR, and ADF.

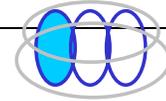
(e) Performance gaps being addressed:

Parts Supportability: As the DOD inventory of C-130Hs shrinks, the commensurate decrease in traditional DOD support has led to challenges in keeping a steady flow of parts to field units. Funding has not kept pace with increases in costs in the aviation industry. Some commercial contracts with OEM's have provided some relief. Efforts to increase the funding stream and research more productive contracts are underway.

Sensor and data gaps: The Sensor Upgrade project will provide a state-of-the market sensor suite to enhance the detection, classification, identification and downlink capabilities of the HC-130H. A tactical workstation will process information gathered on scene by the aircraft and transmit that information in near real time to operational commanders via on board communications systems. In line with the Sensor Upgrade, a Resource Proposal for an Environmental Control System / Auxiliary Power Unit upgrade is being submitted. This package will provide the necessary cooling and electrical power to support the advanced electronic components included in the Sensor Upgrade.

PESL: The projected end of service life is estimated at 1998 for the 1500 and 1600 series aircraft. The PESL for the 1700's is 2003 to 2007. With the projects included in the Aviation Near Term Support Strategy, we expect to extend the service life of the aircraft out to 2010.

Plans to maintain and improve capability: The Electrical Service Upgrade will replace older electrical distribution equipment with modern, reliable components. This upgrade will also provide smoother power for the digital avionics equipment. The LN100 inertial navigation system will replace the aging and unreliable LTN-72 INS and C-12 direction gyro systems, while providing accurate global navigation capabilities. A GPS/Control Display Navigation Unit (CDNU) provides an additional global navigation source and standardizes all cockpit configurations. The Sensor Upgrade project and night vision cockpit conversion prototype will enhance night detection and identification capabilities for rescue and law enforcement missions.



## FUNDING HISTORY

The first HC-130's were delivered in 1959. Our current fleet consists of three different series of HC-130H's. Five 1500 series were acquired between 1973 – 1974 for \$3M each. Three 1600 series were acquired in 1977. The remaining twenty-two 1700 series aircraft were acquired between 1982- 1988 at an average cost of \$18M each.

**Budgeted Costs: \$74M or \$2.5M/airplane**

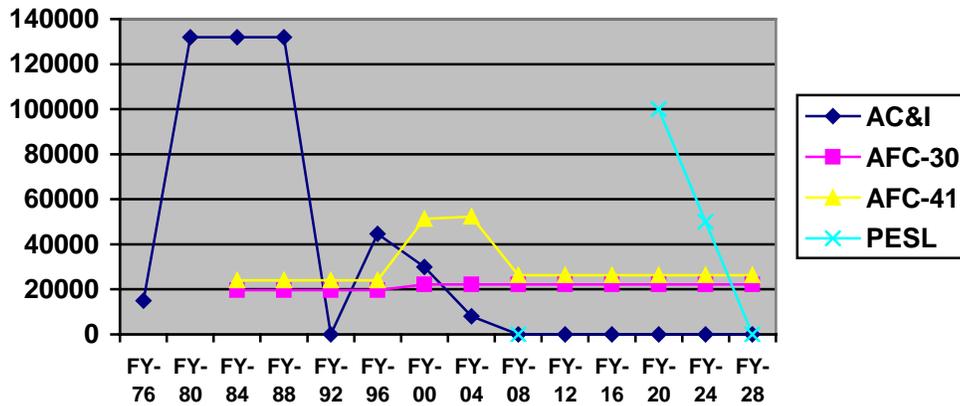
FY99 funding:

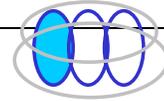
AFC-41:	\$24M
AFC-30	\$19.6M (including fuel)
Personnel	\$30M
Crew size:	2 pilots/1 flight engineer/4 crew
Maintenance personnel:	22 technicians

AFC-41 funding history since 1995 has been around \$23M. Includes all depot-Level and intermediate maintenance and repair and scheduled overhauls.

Upgrades / improvements

FY96-99 T56-15 engine upgrade	\$20M (AC&I)
FY95-00 GPS & autopilot	\$820/aircraft (AC&I)
FY99-03 Sensor upgrade	\$30M (AC&I)
FY99-03 Inertial nav upgrade	\$1.7M/aircraft (AFC-41)
FY00 NVIS prototype	\$190K (AFC-41)
FY99-03 Electrical Upgrades	\$8M (AC&I)





## ASSET

The HU-25 “Guardian”, also known as the “Falcon”, is a medium range search (MRS) fixed wing, twin turbofan jet, maritime patrol aircraft. There are currently three variants or models, the A, B and C. While each has a dual-mode surface-search/weather-avoidance radar, the models are distinguished by the special use sensors installed:

1. HU25A, base radar only
2. HU25B, also equipped with AIREYE sensors
3. HU25C, equipped with an air intercept radar and an infrared sensor



## MISSION(S)

The HU25 is a multi-mission aircraft capable of supporting all Coast Guard missions and strategic goals. The twin engine Falcon conducts maritime patrols, air intercepts, in-flight delivery of emergency rescue equipment to vessels and personnel, and can provide logistical transport of personnel and equipment. The HU25’s unique fuselage modifications, which include an enlarged search window on both sides of the aircraft and a drop hatch in the forward floor, facilitate these capabilities. While existing onboard sensors are a significant part of mission completion, all three models of the HU25 are undergoing extensive sensor upgrades to improve their mission effectiveness and efficiency.

The HU25 aircraft supports the following general Coast Guard strategic and performance goals:

<b>CG STRATEGIC GOALS</b>	<b>SAFETY</b>	<b>PROTECTION OF NATURAL RESOURCES</b>	<b>MOBILITY</b>	<b>MARITIME SECURITY</b>	<b>NATIONAL DEFENSE</b>
<b>CG PERFORMANCE GOALS</b>	S1, S2	P1, P2, P3, P4, P5		C1, C2, C3	N1, N2

## INVENTORY

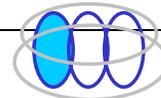
There are 41 HU25s in the Coast Guard’s inventory, located at Air Stations, support facilities and in long term storage as listed below. However, several HU25s are being reactivated from long-term desert storage, hence the numbers and types at each location will change.

HU25s supporting operational missions:

Borinquen, Puerto Rico	3
Cape Cod, MA	4
Corpus Christi, TX	3 (HU25B only)
Miami, FL	8 (HU25C only)
Mobile, AL	5
<b>Total Operational:</b>	<b>23</b>

HU25s located at the following support and storage facilities:

AMARC, long term storage	9
ARSC, depot maintenance	6
ARSC, prototype and support	1
ARSC, re-engining prototype	1
Sandia National Labs, NDI test	1
<b>Total non-operational:</b>	<b>18</b>



## CAPABILITY

- (a) General. The HU25 is programmed to fly 800 flight hours per year per aircraft. Because the HU25 is a fixed wing turbofan jet aircraft, it is the fastest operational air asset in the Coast Guard inventory, allowing it to arrive on scene quickly to perform its mission. It is frequently forward deployed to international locations for law enforcement operations and other missions. The HU25 is certified for flight under all weather conditions, with the exception of severe air turbulence and severe icing conditions. The aircraft is equipped with an auto-pilot and auto-throttle systems that can be fully coupled into the aircraft's flight guidance and navigation systems, allowing hands free operations to reduce fatigue and improve search effectiveness. All HU25s can perform aerial deliveries through a custom drop hatch and air deflector installed in the bottom of the fuselage. The standard complement of deployable SAR equipment consists of a gas-powered de-watering pump, a self-inflating life raft, a radio, a data marker buoy, smoke flares, and small message blocks. Other equipment and supplies such as food, water, gas cans, etc., can be dropped as well provided they conform to size and weight parameters of the parachuted containers.

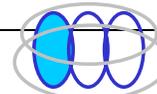
### Physical Characteristics:

Length:	57 ft
Wingspan:	54 ft
Height:	18 ft
Weight:	32,000 lbs max gross

### Operational Characteristics:

Crew:	5 (two pilots, one dropmaster, one observer, one avionicsman or sensor operator)
Speed:	max 350-380 kts, cruise 250 kts
Cruising range:	varies greatly with altitude, 1000 to 1500 nautical miles
Cargo capacity:	Varies according to model of aircraft and internal configuration. Max zero-fuel weight is 23,150 lbs, which typically allows approximately 500-1000 lbs for cargo. This amount may be less depending on required aircraft takeoff performance.

- (b) Sensors. All HU25s were originally outfitted with the APN-215 color radar that provided basic weather avoidance but limited search capabilities. Shortly after fielding, this radar was replaced with the APS-127 to improve over water target detection capabilities. The APS-127 is an early-1980s vintage surface search radar manufactured by Texas Instruments, Inc. with a maximum 160-mile range (actual effective range is dependent on aircraft search altitude, sea state and the nature of the target). Shortly after their initial acquisition, several HU25As were configured with an additional sensor package (AIREYE) to provide oil spill and ice mapping capabilities. These aircraft were designated HU25Bs, and received external sensor pods and internal avionics modifications to process and record the data. AIREYE sensors include a side looking airborne radar (SLAR) that provides area mapping capability, and an infrared/ultraviolet (IR/UV) line scanner to determine the relative thickness of substances on the surface of the water. In FY88, due to emphasis on interdicting aircraft smuggling narcotics, the APS-127 radar on several HU25As was replaced with the APG-66 air intercept multi-mode radar, the same Northrop-Grumman radar onboard the Air Force F-16 aircraft. These aircraft, designated the HU25C, also received a first generation forward looking infrared radar (FLIR) made by Westinghouse that is housed in an external turret. This turret was initially installed over the drop hatch, but several years later was moved forward to restore aerial delivery capabilities.
- (c) Communications. The HU25s are equipped with two VHF-AM, a marine band VHF-FM, a UHF, and two HF radios. As the emphasis on OPSEC increased, secure capabilities were added for the UHF, HF and FM radios. Additionally, the HU25Cs have non-DAMA UHF military satellite communications (MILSATCOM) and Customs-Over-The-Horizon-Encrypted-Network (COTHEN) HF with automatic link establishment.
- (d) Navigation. The HU25 has GPS, an Inertial Navigation System (INS), an Area Navigation Computer (RNAV), dual VORs, and TACAN receiver.
- (e) Performance gaps being addressed.



Reliability of Engines. When first procured by the Coast Guard, the ATF-3 turbofan was not a proven engine on manned aircraft. Premature failures of engines and engine related components have been a problem almost since procurement. Due to the high failure rate and extremely high cost of overhaul, a re-engining prototype project is underway that will re-engine 2-3 HU25s in FY00-02. This project is a cost reduction program and not specifically being pursued as a performance enhancement.

Sensor and data gaps. Like most other Coast Guard mobile assets, the HU25 has numerous sensor limitations that have significantly hampered its effectiveness and efficiency. A sensor upgrade project is underway that will: (1) replace the 'detection-only' APS-127 radar with an Inverse Synthetic Aperture Radar (ISAR) that also has 'classification' capabilities, (2) provide all HU25s with a third generation FLIR and a low light camera for night-time classification, monitoring, and some level of identification, and (3) a tactical workstation that can process and externally transmit sensor data. Installs and delivery are slated for FY01-04.

Communication gaps. As part of the sensor upgrade project, MILSATCOM will be added to the HU25s in order to obtain more reliable communications and better interoperability with DoD assets. Additionally, a commercial SATCOM project is getting underway to add this capability. Future HU25 communication requirements include compatibility with the Coast Guard's National Distress System and Response Modernization Project (NDRSMP), and the international effort for reduced channel spacing to facilitate direct flight routing for all aircraft.

Avionics supportability. Several avionics components will become unsupported and will be replaced under an avionics upgrade project getting underway. Installs are scheduled for FY02-05.

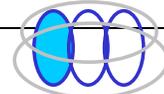
- (f) PELS. Consistent with the Aviation Near Term Support Strategy (ANTSS), the projected end of service life (PELS) is estimated at 2030, provided the engines, some avionics components, and other items are replaced as they become unsupported. The airframe itself is extremely rugged and has been certified by the FAA with no life limits. Coast Guard Falcons were initially procured between 1982-1984, and have flown an average of 8500 flight hours to date. As a basis for comparison, the oldest commercial Falcon 20 has been flying since 1965 and has three times the number of flight hours as the USCG average.
- (g) Plans and studies to maintain, modernize, or improve capability. HU25s are being reactivated from long term storage to meet the need for additional counter drug maritime patrol assets. There are numerous ongoing improvement projects, both to maintain and improve capabilities. The re-engining prototype project, sensor upgrade project, avionics upgrade and commercial SATCOM projects are described above. Other projects include modernizing the SLAR components in the HU25B and providing for sensor data export, and modernizing the APG-66 air intercept radar. In addition, there is an ongoing study to extend the range and endurance of the HU25 to enhance its maritime patrol capability. These plans depend on the outcome of the Deepwater Capability Replacement Project and are subject to change.

## FUNDING HISTORY

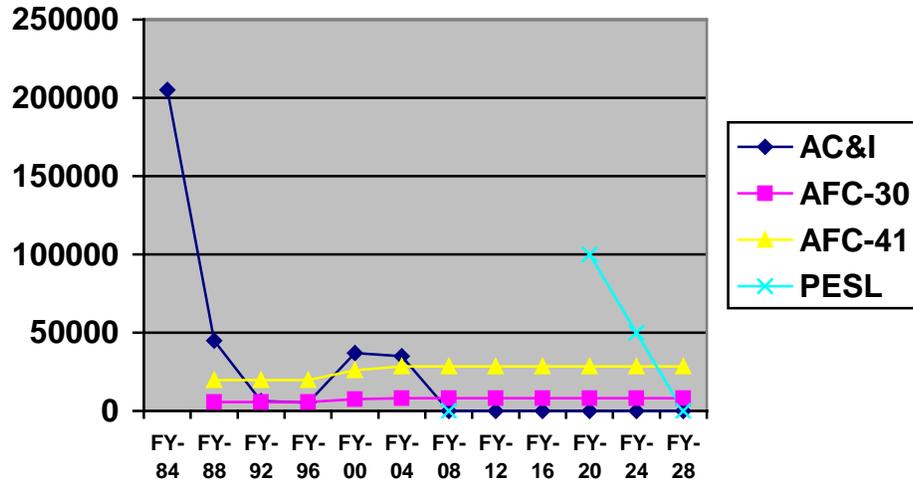
- (a) Initial procurement between 1982-1984. Average cost per aircraft was \$5 million.
- (b) History of major maintenance or upgrade investments, average annual O&M costs related to preserving capability:
 

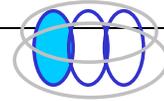
Budgeted Costs:	\$45.9M or \$1.1M per acft
Personnel:	\$18.6M
AFC-41:	\$19.7M
AFC-30:	\$7.6M
- (c) Personnel required to maintain and fly: 2 pilots and 13 crewmen as per staffing standards. Additional pilots are assigned at each unit to maintain B-0 readiness.
- (d) Upgrades/Improvements
 

		<u>Total</u>	<u>per acft</u>
FY87	Alpha to Charlie model conversion	\$45M	\$5M
FY92-93	C+ conversion (restore drop hatch)	\$4.5M	\$500K
FY93	Flight Data Recorder	\$1.75M	
FY94-96	TCAS and GPS (25 acft)	\$5.2M	\$210K
FY93,95,99+	Aireye SLAR upgrade (4 sets)	\$9.7M	N/A



- (a) Graph showing funding/investment history of the unit(s) and average OE costs related to maintaining capability over the service life of the asset.





## ASSET

HH-60J "Jayhawk"  
Twin-engine, medium-range recovery (MRR) helicopter



## MISSION(S)

The HH-60J is a multi-mission asset that supports missions in all Coast Guard strategic goal categories; safety, protection of natural resources, mobility, maritime security, and national defense. The Jayhawk operates up to 300 NM off shore, and will fly comfortably at 120 knots for five and one-half hours. Though normally stationed ashore, the helicopter can be carried aboard 270-foot medium endurance cutters.

The HH-60J supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4	P1, P2, P3, P4, P5	M3	C1, C2, C3	N1, N2

## INVENTORY

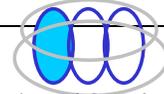
HH-60J Air Stations:

Astoria, OR	3
ATC Mobile, AL	3
Cape Cod, MA	4
Clearwater, FL	12
Elizabeth City, NC	3
Kodiak, AK	4
San Diego, CA	3
Sitka, AK	3
Support	7
Total	42

## CAPABILITY

- (a) The Jayhawk is an all-weather, medium-range, recovery helicopter crewed by 2 pilots, a flight mechanic, and a rescue swimmer. It is capable of land based operations out to 300 NM with a 45 minute on-scene time, and is designed to carry up to 6 survivors. The HH-60J is fully night vision device (NVD) capable, and in addition to a rescue hoist rated for 600 pounds, is equipped with a heavy lift external sling capable of lifting 6000 lbs.

The HH-60J, a variant of the Hawk series of helicopters built by the Sikorsky Aircraft Division of United Technologies, first entered service in 1990. The helicopter most closely resembles the Navy SH-60F and HH-60H models. The fleet is comprised of 42 aircraft. Thirty-five are stationed at eight operational commands, with several dedicated to special missions such as Operations Bahamas and Turks and Caicos (OPBAT). OPBAT operates two 24-hour sites at Nassau and Great Inagua. Resources for a third OPBAT site are utilized for ship/land based pulse operations. The remaining seven aircraft are designated engineering support aircraft, and



are in the Programmed Depot Maintenance (PDM) line at the Coast Guard Aircraft Repair and Supply Center (ARSC) in Elizabeth City, NC.

The HH-60J has a fully equipped navigation suite consisting of GPS, VOR, TACAN, ADF, and Doppler. Navigation inputs are processed through the ASN-150 Tactical Data Management System which provides navigation computations, sensor processing, external stores management, avionics system management and control, backup communications control, and tactical data transfer.

Reliance on GPS as the sole long-range navigation source has proven unsatisfactory due to the susceptibility of the HH-60J's GPS receiver to position runaway, particularly in the Alaska AOR. A project is currently underway to replace the GPS-only receiver with a combined GPS/INS unit that will provide the flight crew with multiple navigation solutions. The project began in FY99 and is scheduled to be complete by FY02.

The ASN-150 has been plagued by performance and supportability problems throughout its life. In accordance with the Aviation Near-Term Support Strategy (ANTSS), a Resource Proposal (RP) is being prepared to replace the system with a more capable, reliable and affordable avionics suite. Issues prompting replacement include:

- Repair support available only through Litton Systems, Inc. (ASN-150 Manufacturer) resulting in high cost and long equipment repair lead-times.
- Software supportability for major sub-systems (Display Drivers, Control Display Units, Armament System Controller for external stores) uneconomical, or impossible, by approximately 2002-2003 due to programming equipment age.
- Hardware unsupported due to obsolete/superseded manufacturing processes by 2003-2004.
- Shrinking logistics base as SH-60F (75 aircraft) are converted to SH-60Rs and receive new avionics suites, and SH-2G (12 aircraft) and HH-3H (10 aircraft) are retired.. Only HH-60H (38 aircraft) operated by the Navy Reserve will retain the ASN-150.
- Hardware was designed in the mid-70's and is technologically obsolete, having been succeeded by at least 2 generations.
- Multifunction display resolution is poor, and is not capable of reproducing video to the maximum capability of current, or planned, sensor systems (Radar, FLIR, Electro-optical video).
- System is not capable of providing full flight director/coupled autopilot functions.
- Existing sensors not well integrated.

The communications suite includes 2 multi-band VHF/UHF/FM radios, and an HF radio. Radio direction finding is also possible. Secure communications are available through KY-58 (VINSON), and ANDVT units.

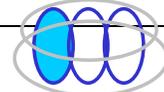
Long a problem area on the HH-60J, the communications system is in need of several improvements. In particular, the system is incapable of meeting the requirements of the National Distress and Response System Modernization Program (NDRSMP), and the FAA's Global Air Traffic Management (GATM) protocol:

- The communications system controller (CSC) is unable to accommodate additional radios – no growth potential. NDRSMP will likely require the addition of at least 2 radios to meet voice and data channel requirements. Additionally, the HH-60J is slated to receive commercial SATCOM capability in the near future. With no growth potential in the CSC, it will be impossible to integrate either radio control, or crew audio into the existing avionics system.
- Current radios (ARC-182) do not meet data transmission requirement of either NDRSMP, or GATM.
- ARC-182 radio is unable to meet DSC requirement of NDRSMP.

Due to the high level of integration between the CSC and the ASN-150, anticipate CSC replacement to be covered in the Avionics Suite Replacement RP.

Additionally:

- ARC-182 radio is unable to operate in the 900MHz Public Safety frequency range. Incorporation of 900MHz capable would improve interoperability with law enforcement, and fire/rescue organizations.
- ARC-182 radio is not capable of DES operations.
- Current HF radio (ARC-174) communications are marginal, at best. New HF radio with Automatic Link Establishment (ALE) should be added to improve offshore communications reliability.



Sensors include the Bendix RDR-1300C weather radar, and a stand-alone forward-looking infrared (FLIR) system. The FLIR image can be captured on videotape. Hand-held video and photographic equipment is carried. The aircraft is fully NVD capable.

Two Resource Proposals are in process to upgrade the Radar and FLIR systems, significantly improving operational capability and supply supportability. The RDR-1300C, primarily weather radar, will be upgraded/replaced to bring ground mapping and small target detection performance up to acceptable levels for counter-drug patrol operations. The FLIR will be upgraded/replaced to incorporate new IR array technology that will improve detection, classification, and identification capabilities. The new FLIR turret will also house an electro-optical (EO) video sensor for improved mission documentation. Additionally, the sensors will be integrated to work together, with the Radar used to point the FLIR/EO turret. Technical characteristics of the ASN-150 will restrict the resolution of the cockpit video presentation (Radar/FLIR/EO), and will prohibit the overlay of tactical symbology and Radar data – two highly desired situational awareness and flight safety capabilities – unless it is replaced.

A cockpit Voice And flight Data Recorder (VADR), and Traffic alert and Collision Avoidance System (TCAS) were added to the aircraft in FY96-97 to improve safety of flight.

Physical Characteristics:

Fuselage Length:	54.0 ft
Rotor diameter/wingspan:	53.7 ft
Height:	17.0 ft
Max Gross Weight:	21,884 pounds

Operational Characteristics:

Crew:	2 pilots, 1 flight mechanic, 1 rescue swimmer
Speed:	Max 180 KIAS Cruise 125 KIAS
Cruising range:	700 NM
Cargo capacity:	Varies according to configuration. The average aircraft useful load is 6,500 pounds. This includes a minimum crew of two pilots and one flight mechanic. Additional crewmen, passengers, cargo and fuel will effect the total useful load. For example: To transport cargo to a destination 300 NM away, the aircraft would require 3,080 pounds of fuel. If no additional crew were carried, the cargo would be limited to 3,420 pounds. Maximum internal cabin floor loading is 300-pounds/square foot. Maximum external cargo hook loading is 6000 pounds

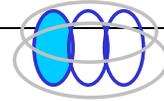
- (b) Projected End of Service Life (PESL): Based on the Sikorsky Aircraft imposed airframe design life of 10,000 flight hours, the HH-60J will reach the end of its service life between 2006 and 2012. As part of ANTSS, a Service Life Extension Program (SLEP) is planned to begin in 2004, and is designed to extend economical operation of the aircraft to 20,000 airframe flight hours. With SLEP, the HH-60J's PESL is between 2022 and 2028.
- (c) The Aviation Near Term Support Strategy (ANTSS) discussed above is the Coast Guard's plan to support legacy aircraft until Deepwater identifies replacement platforms, or improvements/upgrades.

## FUNDING HISTORY

- (a) Date and cost of acquisition: Acquired between 1990 and 1996 at an average cost of \$13.1M per aircraft.
- (b) History of major maintenance or upgrade investments, average annual O&M costs related to preserving capability:
 

Budgeted Costs:	\$71.2M total/\$1.7M per acft
Personnel:	\$33M
AFC-41:	\$30.3M
AFC-30:	\$7.9M

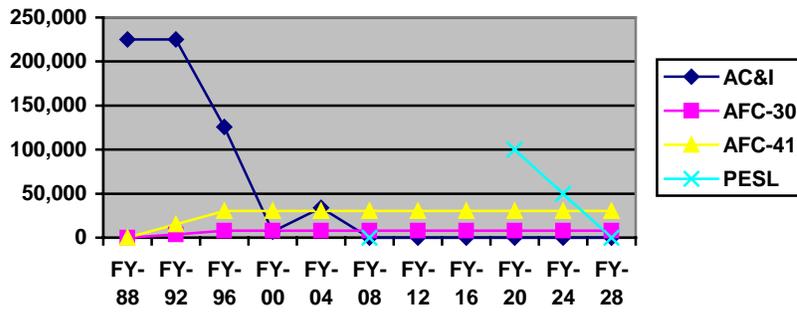
Personnel required to maintain: 17

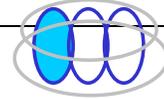


Upgrades/Improvements: (costs are per acft)

FY96-97	TCAS/VADR Installation	\$138K
FY99-01	EGI Installation	\$169K (estimated)

HH-60J Funding (\$000)





## ASSET

HH-65A "Dolphin"

Twin-engine, turboshaft, short-range recovery (SRR) helicopter



## MISSION(S)

The HH-65A is a multi-mission capable aircraft that supports all Coast Guard strategic goals; safety, protection of natural resources, mobility, maritime security, and national defense. The twin-engine Dolphins operate up to 120 NM off shore and will fly comfortably at 120 knots for two and one-half hours. Though normally stationed ashore, the Dolphins can be deployed aboard medium, high endurance and polar cutters.

The HH-65A supports all Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4	P1, P2, P3, P4, P5	M4, M5, M6	C1, C2, C3	N1, N2

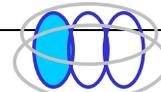
## INVENTORY

HH-65A Air Stations:

Atlantic City, NJ	7
Aviation Trng Center Mobile, AL	8
Barbers Point, HI	4
Borinquen, Puerto Rico	4
Corpus Christi, TX	3
Detroit, MI	3
Houston, TX	4
Humboldt Bay, CA	3
Kodiak, AK	5
Los Angeles, CA	3
Miami, FL	9
New Orleans, LA	5
North Bend, OR	5
Port Angeles, WA	3
San Francisco, CA	4
Savannah, GA	5
Traverse City, MI	5
Support Allowance	12
Total	92

## CAPABILITY

(a) The HH-65A helicopter is the Coast Guard's most prevalent aircraft, flying approximately 50,000 flight hours annually. It is certified for operation in all weather night time operations, with the exception of icing. The



aircraft uses a four-axis autopilot that can be coupled to the flight controls for hands-free operation during execution of search patterns, instrument flight plans, approaches to a hover, etc. HH-65A crews have recently completed Night Vision Goggle implementation, greatly enhancing night time search capabilities. This aircraft is the only Coast Guard aircraft routinely deployed aboard cutters and ships. Because shipboard landings significantly increase loading and dynamic stresses on the landing gear, these components are failing at a high rate. Current overhaul procedures do not apply to these struts and scrapped components will require replacement. Current AC&I projects include; Kapton Rewiring, Mission Computer Unit (MCU) Replacement, and Full Authority Digital Engine Control (FADEC). The Kapton Rewiring project removes unsafe, brittle Kapton insulated wiring with current mil-spec conductors. The MCU is the heart of the aircraft's fully integrated avionics and navigation package. The MCU was built with 1970's technology and is no longer manufactured. The MCU is to be replaced with off-the-shelf components that will greatly enhance reliability and reduce aircraft weight. Current aircraft dispatch data show that the engine control system is the most troublesome system on the aircraft. The entire engine control system will be replaced with FADEC, a state of the art, extremely reliable digital control technology. Weight growth has been a problem with the HH-65A. Since the inception of the HH-65A, aircraft weight has "grown", with the addition of rescue swimmers, TALON system, TCAS, VADR, etc. This growth has added approximately 850 pounds in mission weight with no corresponding increase in engine power available. Therefore, the additional weight has been offset with smaller fuel loads, resulting in reduced range and endurance.

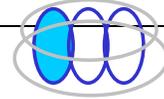
#### Physical Characteristics:

Length:	45 ft
Rotor diameter/wingspan:	39 ft
Height:	13.5 ft
Weight:	9,200 pounds

#### Operational Characteristics:

Crew:	4 (two pilots, flight mechanic, rescue swimmer)
Speed:	max 165 kts, cruise 130 kts
Cruising range:	300 nautical miles
Cargo capacity:	Varies according to configuration. The average aircraft useful load is 2,200 pounds. This includes the minimum crew of one pilot and one flight mechanic. Additional crewmen, passengers, cargo and fuel will effect the useful total load. For example: To transport cargo to a destination 300 nm away, the aircraft would require 1,800 pounds of fuel. If no additional pilot or crew were carried, the cargo would be limited to 400 pounds.

- (b) PESL: The projected end of service life is 2004-2008. This is derived from standard 20 year planned service life. These aircraft were purchased from 1984-1988. The Coast Guard is planning to extend this service life to 2015 in accordance with the Aviation Near Term Support Strategy (ANTSS) which was approved by the Chief of Staff in August 1998.
- (c) The Aviation Near Term Support Strategy discussed above is the Coast Guard's logistical look at supporting our legacy aircraft until Deepwater identifies replacements or improvement/upgrades. All projects listed above, Kapton Rewire, MCU Replacement and FADEC, are integral parts of this support strategy.
- (d) Communication/Navigation/Sensors: The Coast Guard's National Distress System Modernization Program (NDSMP) will impact all CG aircraft, but the HH-65A has the greatest potential of adverse affects due to increased weight and space requirements. Also, the international effort to provide direct flight control routing for all aircraft will also adversely affect the HH-65A since there is currently no radio that can accomplish the requirements needed for these two initiatives. The Allied Signal RDR-1300 weather radar currently installed on the HH-65A is becoming increasingly difficult to maintain and will become unsupportable in 2003. Current commercial-off-the-shelf (COTS) replacement parts will upgrade the radar to the RDR-1500, providing increased reliability with the same capabilities. AR&SC just completed negotiations for 3 WESCAM DS-12 FLIR's. These units will be located in the Seventh District for law enforcement operations. This will be the first permanent installation of FLIR technology on the HH-65A and will utilize third generation technology with a 5-10 year obsolescence window.



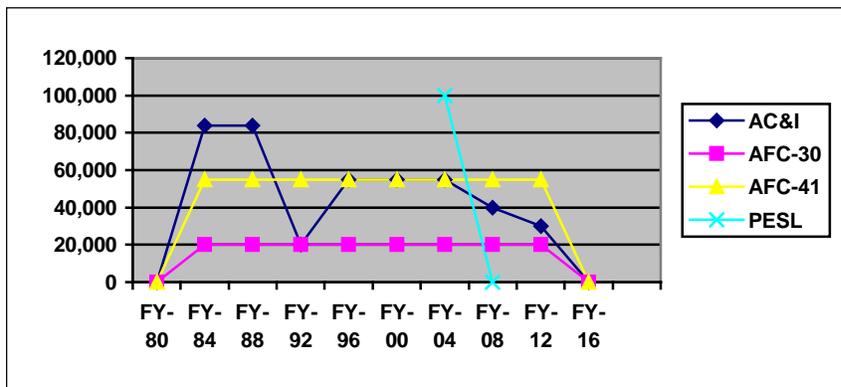
## FUNDING HISTORY

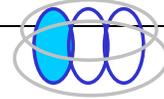
- (a) Date and cost of acquisition: Initial procurement began in 1984-85. Average cost per aircraft is \$3.5M.
- (b) History of major maintenance or upgrade investments, average annual O&M costs related to preserving capability:

Budgeted Costs:	\$106M or \$1.14M per acft
Personnel:	\$46M
AFC-41:	\$55M
AFC-30:	\$5.0M
Personnel required to maintain:	10

Upgrades/Improvements: (per acft)	
FY 94-95: N2 Gearbox	\$50K
FY 96-97: TCAS	\$75K
FY 96-97: GPS	\$36K
FY 96-98: NVG Cockpit Conversion	\$65K
FY 98-00: Crashworthy Seats	\$35K
FY 96-00: Kapton Rewire	\$140K
FY 96-98: VADR	\$25K
FY 97-02: MCU Replacement	\$235K
FY 99-04: FADEC	\$183K

- (c) Provide graphs showing funding/investment history of the unit(s) and average OE costs related to maintaining capability over the service life of the asset. Plot from pre-acquisition to today, indicate PESL point.





**ASSET**

MH-90 “Enforcer”  
Twin-engine, short-range interdiction (SRI) helicopter



**MISSION(S)**

The MH-90 is a single-mission leased asset that supports missions in the Coast Guard strategic goal categories of maritime security - specifically, counter drug operations in the Caribbean AOR. The aircraft can and does support additional goals such as safety, protection of natural resources, and mobility on an as-available basis. The Enforcer is primarily a shipboard deployed asset operating within 50-70 NM of the vessel. The aircraft operates as part of a team of two helicopters, along with other surface and airborne assets. The MH-90 will fly comfortably at 120 knots for two and one-half hours. The helicopter can be carried on board 210 and 270-foot medium endurance cutters as well as the 378-foot high endurance cutters.

The MH-90 supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS				C1	

**INVENTORY**

Siting: The Squadron will move from ATC Mobile, AL to Jacksonville, FL in FY00.

Total: 2

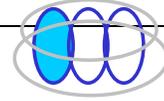
**CAPABILITY**

- (a) The Enforcer is an all-weather, short-range, interdiction helicopter crewed by 2 pilots and 1 air crewman. The aircraft is typically shipboard deployed, but it is capable of land based operations out to 80 NM with a 45 minute on-scene time, and is designed to carry up to 5 passengers. The MH-90 is fully night vision device (NVD) capable, and in addition to a rescue hoist rated for 600 pounds, is equipped with a heavy lift external sling capable of lifting 1500 lbs.

The MH-90 is manufactured by the MD Helicopters Corporation. The Coast Guard fleet is comprised of 2 aircraft with future expansion to approximately 6 to 8 aircraft. The 2 existing aircraft are operated by Helicopter Interdiction and Tactical Squadron Ten (HITRON10) currently assigned, temporarily, to ATC Mobile, AL. HITRON10 will be permanently assigned to Jacksonville, FL in FY00. All engineering and logistics support for the aircraft are provided by MD Helicopters Inc.

The MH-90 has a fully equipped navigation suite consisting of GPS, VOR, TACAN, and ADF. The communications suite includes VHF/UHF/FM radios, and a UHF MILSATCOM radio. Secure communications are available through KY-58 (VINSON) embedded in the LST-5D MILSATCOM radio.

Sensors include the Bendix RDR-2000 weather radar, and a stand-alone Mark III forward-looking infrared (FLIR) system. The FLIR image can be captured on videotape. Hand-held video and photographic equipment is carried. The aircraft is fully NVD capable. The aircraft is also equipped with a Terminal Collision Avoidance System (TCAS) to improve safety of flight.

Physical Characteristics:

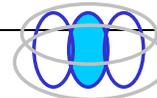
Fuselage Length:	32.33 ft
Rotor diameter/wingspan:	33.83 ft
Height:	12.0 ft
Max Gross Weight:	6,500 pounds

Operational Characteristics:

Crew:	2 pilots, 1 air crewman
Speed:	Max 150 KIAS Cruise 138 KIAS
Cruising range:	302 nautical miles

## FUNDING HISTORY

- (a) These special mission aircraft were leased with a maintenance support agreement. Date and cost of lease:  
November 1998: \$3 million.  
November 1999: \$10 million (including personnel (3.5); facilities (2.0); and operations/lease (4.5))



## ASSET

290-Foot USCGC MACKINAW, Great Lakes Icebreaker

## MISSION(S)

The 290-Foot Great Lakes Icebreaker performs extensive icebreaking and scientific support on the Great Lakes as well as ice escort. It is outfitted with necessary equipment to fully carry out assigned Coast Guard missions. It is outfitted with necessary equipment to fully carry out command, control, communications, computers, and intelligence (C4I) requirements for itself and other operating facilities conducting Coast Guard missions in its area of operation.

The Great Lakes Icebreaker supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2	P1, P2, P3, P4	M1, M2, M3	C3	N1, N2

## INVENTORY

USCGC MACKINAW

(WAGB 83)

Cheboygan, MI

## CAPABILITY

- (a) The USCGC MACKINAW is the largest United States icebreaker on the Great Lakes, and is the only ship in its class. It can break three feet of ice continuously at a speed of three knots and supports the mobility missions of the U.S. Coast Guard.

### Physical Characteristics

Length overall:	290' Feet
Beam:	74 Feet
Full Load Draft:	19 Feet
SHP:	10,000
Full Load Displacement:	5,252 Tons

### Operational Characteristics

Crew:	75
Speed:	18.7 Knots
Cruising range:	41,000 Nautical Miles at 11.5 Knots (distance/speed)
Endurance:	4 days; constrained by the inability to dump sewage(days unreplenished)
Maximum seas:	n/a

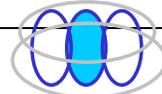
- (b) PESL: 2007-2012

- (c) The aging USCGC MACKINAW is becoming increasingly expensive to maintain and operate. Periodic upgrades will be undertaken to maintain capability until its replacement is constructed.

## FUNDING HISTORY

Acquisition Costs: **8,525,000.00**

Unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. The USCGC MACKINAW is the only vessel

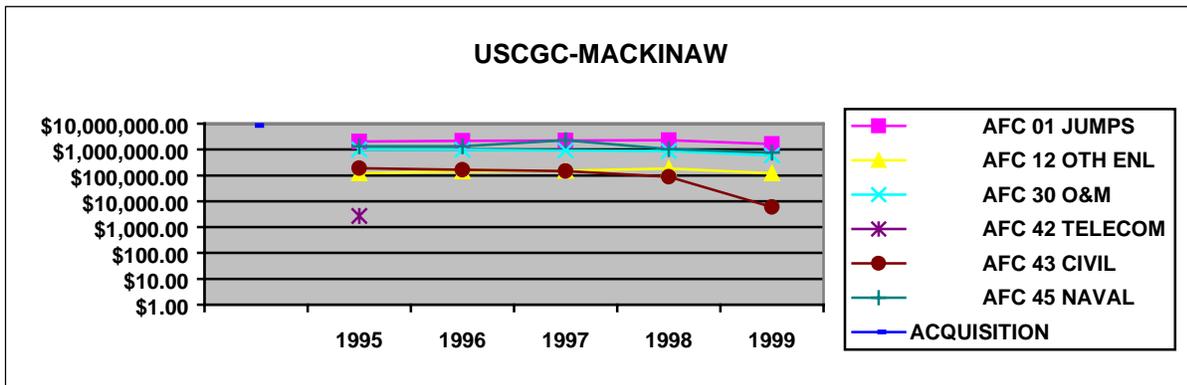


of its kind in the U.S. Coast Guard inventory, therefore, the acquisition costs indicated are unique to that platform alone.

Actual operating expenditures: (information obtained from Web EIS-Corporate Database coded specifically for USCGC MACKINAW cost center)

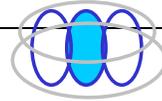
	1995	1996	1997	1998	1999 *
AFC 01 JUMPS	2,033,154.14	2,186,442.25	2,245,837.66	2,313,770.60	1,652,338.60
AFC 12 OTH ENL	119,098.20	141,542.02	150,971.43	183,455.16	120,899.67
AFC 30 O&M	1,005,493.34	993,320.36	932,447.26	866,903.18	581,301.57
AFC 42 TELECOM	2,709.00				
AFC 43 CIVIL	190,681.60	163,250.62	145,035.34	87,034.07	5,924.53
AFC 45 NAVAL	1,333,487.25	1,341,106.94	2,269,261.73	1,026,261.52	760,251.96

\* data available through third quarter FY 1999



## CURRENT PERSONNEL ALLOWANCE

Officer:	7
Warrant Officer:	1
Enlisted:	67
GS:	0
WG:	0
Contract:	0
TOTAL:	75



## ASSET

225-Foot JUNIPER-Class Sea Going Buoy Tender (WLB)



## MISSION(S)

Primarily maintaining short range Aids to Navigation. Others include Search and Rescue, Pollution Response, Icebreaking, and Defense and Law Enforcement Operations. The JUNIPER-Class Sea Going Buoy Tender supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P3, P4	M1, M2, M3	C1, C2, C3	N1, N2

## INVENTORY

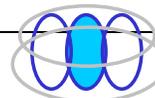
<u>Hull</u>	<u>Name</u>	<u>Homeport</u>	<u>Delivery/Projected Delivery</u>
201	USCGC JUNIPER	Newport, RI	2 <sup>nd</sup> Quarter FY-96
202	USCGC WILLOW	Newport, RI	1 <sup>st</sup> Quarter FY-97
203	USCGC KUKUI	Honolulu, HI	1 <sup>st</sup> Quarter FY-98
204	USCGC ELM	Atlantic Beach, NC	4 <sup>th</sup> Quarter FY-98
205	USCGC WALNUT	Honolulu, HI	2 <sup>nd</sup> Quarter FY-99
206	USCGC SPAR	Kodiak, AK	2 <sup>nd</sup> Quarter FY-00
207	USCGC MAPLE	Sitka, AK	3 <sup>rd</sup> Quarter FY-01
208	USCGC ASPEN	San Francisco, CA	4 <sup>th</sup> Quarter FY-01
209	USCGC SYCAMORE	Cordova, AK	2 <sup>nd</sup> Quarter FY-02
210	USCGC CYPRESS	Mobile, AL	2 <sup>nd</sup> Quarter FY-02
211	USCGC OAK	Charleston, SC	4 <sup>th</sup> Quarter FY-02
212	USCGC HICKORY	Homer, AK	1 <sup>st</sup> Quarter FY-03
213	USCGC FIR	Astoria, OR	2 <sup>nd</sup> Quarter FY-03
214	USCGC SEQUOIA	Guam	4 <sup>th</sup> Quarter FY-03
215	USCGC HOLLYHOCK	Port Huron, MI	1 <sup>st</sup> Quarter FY-04
216	USCGC ALDER	Charlevoix, MI	2 <sup>nd</sup> Quarter FY-04

Hulls 201-205 are currently in service. Hulls 206-209 are currently under contract to be built. Hulls 210-216 are planned on being built under options of the current contract.

## CAPABILITY

### Physical Characteristics

Length overall:	225-Feet
Beam:	46-Feet
Full Load Draft:	13-Feet
SHP:	3100 HP on each engine
Full Load Displacement:	2000 Tons



Operational Characteristics

Crew:	40
Speed:	15 Knots at 80% power
Cruising range: (distance/speed)	6000 Nautical Miles, at 12 knots
Endurance: (days unreplenished)	21 Days
Maximum seas:	35 Feet transit, 8 Feet working

Advanced Technology

- Integrated Ship's Control System (ISCS)
- Differential Global Positioning System (DGPS)
- Electronic Chart Display Information System (ECDIS)
- Dynamic Positioning System (DPS)
- Main Propulsion and Monitoring System (MPCMS)

Aids to Navigation Equipment (AtoN)

- Main Hoist: 40-60' Feet, Telescoping, 20 Ton Capacity
- Whip: 5 Ton Capacity
- Buoy Deck Area 2,875 Square Feet
- Power Gripping System
- Continuous Chain In-haul Device
- 4 Chain Stoppers
- 4 Cross Deck Winches

PESL: Design service life is 30 years

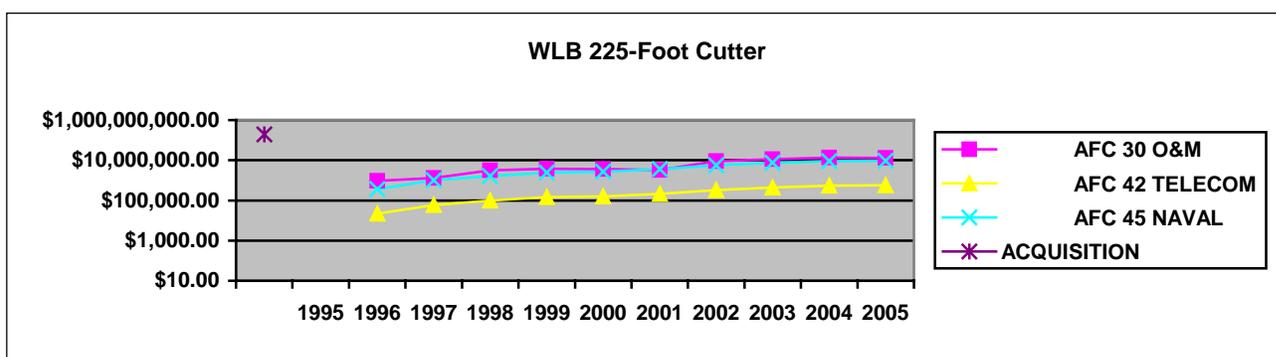
## FUNDING HISTORY

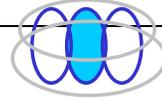
Acquisition Costs: **190,325,000**

Unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. Costs have been averaged due to cost differentials. This is "costs-per-vessel" average.

Operating Costs (fleet-wide):

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AFC 30 O&M	0	928,836	1,299,984	3,150,478	3,825,833	3,621,360	3,214,927	8,978,330	11,446,517	13,347,622
AFC 42 TELECOM	0	21,985	59,798	99,115	147,758	158,650	210,373	330,120	437,749	540,950
AFC 45 NAVAL	0	366,666	997,332	1,653,077	2,464,357	2,698,855	3,578,679	5,615,770	7,446,517	9,202,174



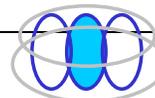


The entire 16-ship fleet will be in place by 2005.

Note: The figures in these tables represent budget levels agreed upon between G-OCU, G-CPA, G-CBU, and G-CFM, including appropriate factors of inflation. FY-01 and beyond are increased 2% annually.

## CURRENT PERSONNEL ALLOWANCE

	Ship	MAT
Officer:	4	0
Warrant Officer:	2	0
Enlisted:	34	8
GS:	0	0
WG:	0	0
Contract:	0	0
TOTAL:	40	8



## ASSET

180-Foot Seagoing Buoy Tender (WLB)

## MISSION(S)

The 180-Foot Seagoing Buoy Tenders are over 50 years old and have all been modernized at least once. These cutters are highly versatile, durable, and reliable, and capable of performing a variety of missions. They principally perform the heavy work of servicing short-range Aids to Navigation (AtoN). They also perform search & rescue, ice operations, law enforcement and provide valuable defense readiness operations. The Seagoing Buoy Tenders support the following Coast Guard strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P3, P4	M1, M2, M3	C1, C2, C3	N1, N2

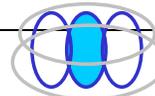
## INVENTORY

<u>Hull</u>	<u>Name</u>	<u>Homeport</u>	<u>Decom/Projected Decom Date</u>
291	USCGC LAUREL	Mayport, FL	1 <sup>st</sup> Quarter FY-00
297	USCGC IRONWOOD	Kodiak, AK	1 <sup>st</sup> Quarter FY-01
301	USCGC CONIFER	San Pedro, CA	3 <sup>rd</sup> Quarter FY-00
302	USCGC MADRONA	Charleston, SC	3 <sup>rd</sup> Quarter FY-02
306	USCGC BUTTONWOOD	San Francisco, CA	3 <sup>rd</sup> Quarter FY-01
309	USCGC SWEETGUM	Mobile, AL	1 <sup>st</sup> Quarter FY-02
277	USCGC COWSLIP	Astoria, OR	1 <sup>st</sup> Quarter FY-03
392	USCGC BRAMBLE	Port Huron, MI	4 <sup>th</sup> Quarter FY-03
393	USCGC FIREBUSH	Kodiak, AK	2 <sup>nd</sup> Quarter FY-03
397	USCGC MARIPOSA	Seattle, WA	2 <sup>nd</sup> Quarter FY-00
401	USCGC SASSAFRAS	Guam	3 <sup>rd</sup> Quarter FY-03
402	USCGC SEDGE	Homer, AK	4 <sup>th</sup> Quarter FY-02
404	USCGC SUNDEW	Duluth, MN	2 <sup>nd</sup> Quarter FY-04
405	USCGC SWEETBRIER	Cordova, AK	4 <sup>th</sup> Quarter FY-04
406	USCGC ACACIA	Charlevoix, MI	1 <sup>st</sup> Quarter FY-04
407	USCGC WOODRUSH	Sitka, AK	2 <sup>nd</sup> Quarter FY-01

## CAPABILITY

### Physical Characteristics:

Length overall:	180'
Beam:	37'
Full Load Draft:	13'
SHP:	1200
Full Load Displacement:	1030 tons



Operational Characteristics:

Crew:	37
Speed:	13 knots (max)
Cruising range: (distance/speed)	13,500 NM
Endurance: (days unreplenished)	21
Maximum seas:	N/A

PESL: All 180-Foot buoy tenders are past design service life and are in the process of being replaced by the 225-Foot JUNIPER-Class sea-going buoy tenders. Fleet transition is projected to be complete in **FY-04**.

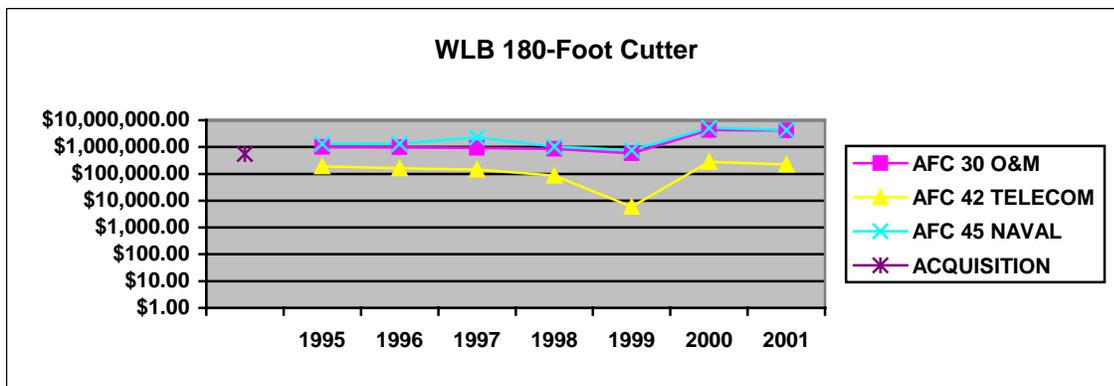
## FUNDING HISTORY

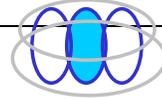
Acquisition Costs: **558,267.10**

Used unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. Unless otherwise indicated the costs have been averaged due to cost differentials. These figures represent an acquisition of "costs-per-vessel."

Operating Costs (fleet-wide): (Source: Budget Model)

	1995	1996	1997	1998	1999	2000	2001
AFC 30 O&M	1,005,493.34	993,320.36	932,447.26	866,903.18	581,301.57	4,343,151	4,176,217
AFC 42 TELECOM	190,681.60	163,250.62	145,035.34	87,034.07	5,924.53	275,602	222,950
AFC 45 NAVAL	1,333,487.25	1,341,106.94	2,269,261.73	1,026,261.52	760,251.96	5,241,011	4,239,798





## CURRENT PERSONNEL ALLOWANCE

### CONUS

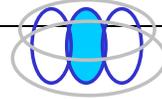
Officer:	5
Warrant Officer:	2
Enlisted:	42
GS:	0
WG:	0
Contract:	0
TOTAL:	49

### D14

Officer:	6
Warrant Officer:	2
Enlisted:	50
GS:	0
WG:	0
Contract:	0
TOTAL:	58

### D17

Officer:	5
Warrant Officer:	2
Enlisted:	49
GS:	0
WG:	0
Contract:	0
TOTAL:	56



## ASSET

175-Foot KEEPER-Class Coastal Buoy Tender (WLM)

## MISSION(S)

Coastal Buoy Tenders compliment Seagoing Buoy Tenders in servicing short-range aids to navigation (AtoN). Along with the seagoing and inland buoy tenders, they keep our waterways properly marked for safe navigation. They also provide icebreaking, search & rescue, and defense readiness operations. The Coastal Buoy Tenders support the following strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S4	P1, P3	M1, M2, M3		N1, N2

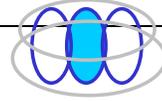
## INVENTORY

<u>Hull</u>	<u>Name</u>	<u>Homeport</u>	<u>Projected Delivery</u>
551	USCGC IDA LEWIS	Newport, RI	Delivered
552	USCGC KATHERINE WALKER	Bayonne, NJ	Delivered
553	USCGC ABBIE BURGESS	Rockland, ME	Delivered
554	USCGC MARCUS HANNA	S. Portland ME	Delivered
555	USCGC JAMES RANKIN	Baltimore, MD	Delivered
556	USCGC JOSHUA APPLEBY	St Petersburg, FL	Delivered
557	USCGC FRANK DREW	Portsmouth, VA	Delivered
558	USCGC ANTHONY PETIT	Ketchikan, AK	Delivered
559	USCGC BARBARA MABRITY	Mobile, AL	Delivered
560	USCGC WILLIAM TATE	Philadelphia, PA	Delivered
561	USCGC HARRY CLAIBORNE	Galveston, TX	1 <sup>st</sup> Quarter FY 2000
562	USCGC MARIA BRAY	Mayport, FL	3 <sup>rd</sup> Quarter FY 2000
563	USCGC HENRY BLAKE	Everette, WA	3 <sup>rd</sup> Quarter FY 2000
564	USCGC GEORGE COBB	San Pedro, CA	3 <sup>rd</sup> Quarter FY 2000

## CAPABILITY

### Physical Characteristics

Length overall:	175 Feet
Beam:	36 Feet
Full Load Draft:	7.9 Feet
SHP:	999 HP per shaft
Full Load Displacement:	850 LT



Operational Characteristics

Crew: 1 officer, 17 enlisted  
 Speed: 12.6 Knots  
 Cruising range: 2,000 Nautical Miles at 12 Knots, at 80% power  
 Endurance: 3 days unreplenished  
 Maximum seas: 8 Feet transit, 3 Feet working  
 Ice Breaking: 9 Inches of ice at 3 Knots, 18 Inches ramming

Advanced Technology

Differential Global Positioning System (DGPS)  
 Integrated Ship's Control System (ISCS)  
 Dynamic Positioning System (DPS)  
 Electronic Chart Display Information System (ECDIS)  
 Main Propulsion Control and Monitoring System (MPCMS)  
 Survival Adaptable Fiber-Optic Embedded Network (SAFENET) Local Area Network (LAN)  
 Z-drive Propulsion System.

AtoN Equipment

Main Hoist: 42 Feet, 10-ton capacity  
 Whip: 9,000 capacity  
 Buoy Deck Area: 1,335 Square Feet  
 Power Gripping System  
 Chain Inhaul Device

Design service life: 30 years.

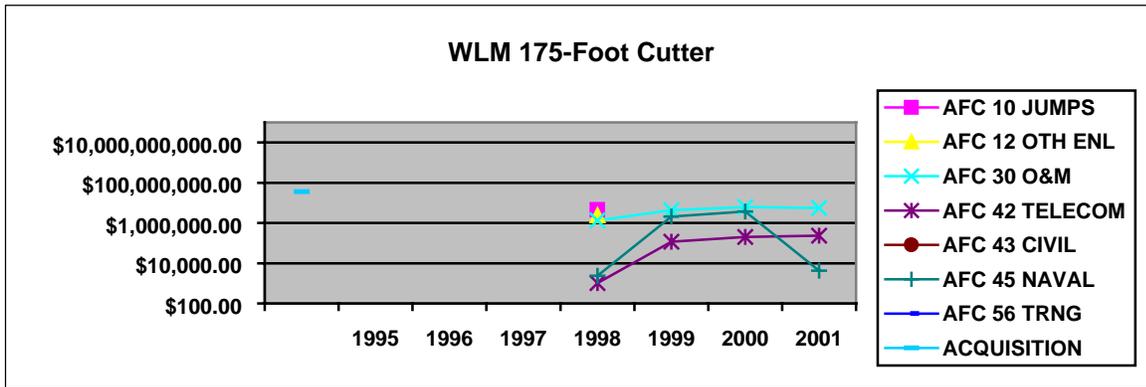
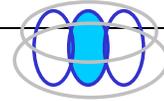
A study team has been assembled to research, analyze, and recommend the best system to operate, maintain, and support "optimally crewed" Cost Guard Juniper-Class WLBs and Keeper-Class WLMs. While focused on the "optimal crewing" issues for the new buoy tenders, the study team will also identify issues relating to the application of these recommendations to the broader context of all U.S. Coast Guard Operational Forces, and the systems required to support major platform acquisitions of the future.

**FUNDING HISTORY**

Acquisition Costs: **35,480,000** Unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. Unless otherwise indicated the costs have been averaged due to cost differentials. These are "cost-per-vessel" averages.

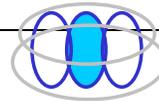
Operating Costs (fleet-wide):

	1997	1998	1999	2000	2001
AFC 30 O&M	0	1,347,008	4,365,153	6,200,413	5,625,649
AFC 42 TELECOM	0	1,025	11,6653	205,150	234,360
AFC 45 NAVAL	0	2,390	2083367	3,663,850	4,185.580



## CURRENT PERSONNEL ALLOWANCE

Officer:	0
Warrant Officer:	1
Enlisted:	17
GS:	0
WG:	0
Contract:	0
<b>TOTAL:</b>	<b>18</b>



## ASSET

133 Foot Coastal Buoy Tenders (WLM)

## MISSION

- Primarily supports Aids to Navigation (AtoN) program
- Supports Mobility Goal



Coastal Buoy Tenders compliment Seagoing Buoy Tenders in servicing short-range aids to navigation (AtoN). Along with the seagoing and inland buoy tenders, they keep our waterways properly marked for safe navigation. They also provide icebreaking, search & rescue, and defense readiness operations.

The Coastal Buoy Tenders support the following strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2		M1, M2		N1, N2

## INVENTORY

USCGC WHITE SUMAC (WLM 540)      New Orleans, LA

Note: The USCGC WHITE SUMAC is slated for decommissioning, 3<sup>rd</sup> Quarter, FY-2002. The capability provided by 133 Foot and 157 Foot Cutters (all decommissioned) will be provided by the 175-Foot, KEEPER-Class Coastal Buoy Tenders (WLM).

## CAPABILITY

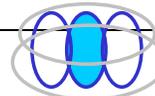
### Physical Characteristics

Length overall:	132 Feet, 10 Inches
Beam:	30 Feet
Full Load Draft:	8 Feet, 9 Inches
SHP:	600
Full Load Displacement:	600 Tons

### Operational Characteristics

Crew:	24
Speed:	10.5 Knots
Cruising range:	2,830 Nautical Miles at 7.5 Knots (distance/speed)
Endurance: (days unreplenished)	
Maximum seas:	N/A

PESL: The 133 Foot/157 Foot cutters are at the end of their service life; and will be replaced by the 175-Foot Keeper-Class Coastal Buoy Tender (WLM).



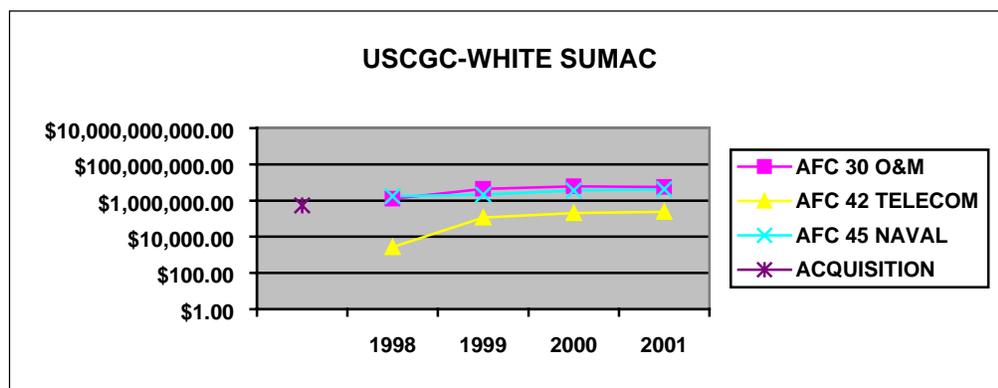
## FUNDING HISTORY

Acquisition Costs: 535,000

Unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. Unless otherwise indicated the costs have been averaged due to cost differentials.

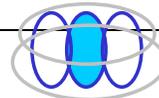
Operating Costs (fleet-wide): (Source: Budget Model)

	1998	1999	2000	2001
AFC 30 O&M	1,261,524	4,365,153	6,200,413	5,625,649
AFC 42 TELECOM	2,633	116,653	205,150	234,360
AFC 45 NAVAL	1,715,326	2,083,367	3,663,850	4,185,580



## CURRENT PERSONNEL ALLOWANCE

Officer:	0
Warrant Officer:	1
Enlisted:	23
GS:	0
WG:	0
Contract:	0
TOTAL:	24

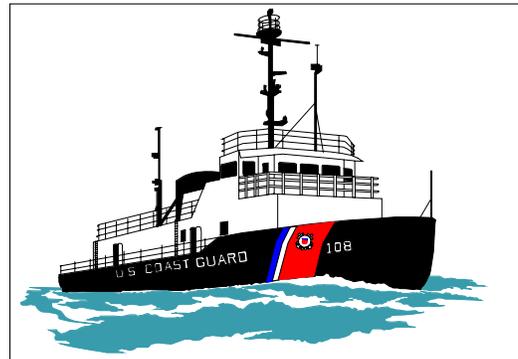


## ASSET

140-Foot (42.7M) Bay-Class Ice Breaking Tugs (WTGB)

## MISSION(S)

These small multi-mission cutters are especially configured for ice breaking on the Great Lakes, in coastal waters, and in rivers. In addition, they conduct search and rescue enforcement of laws and treaties, deployment of marine environmental protection equipment, port safety operations, and support for aids to navigation on the Great Lakes.



The Bay-Class Ice Breaking Tugs support the following strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2	P3, P4	M1, M2, M3	C1	N1, N2

## INVENTORY

The Coast Guard operates a total of 8 vessels in the First and Ninth Coast Guard Districts. The vessels are located as follows:

### First District

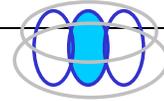
USCGC PENOBSCOT BAY	(WTGB 107)	Bayonne, NJ
USCGC THUNDER BAY	(WTGB 108)	Rockland, ME
USCGC STURGEON BAY	(WTGB 109)	Bayonne, NJ

### Ninth District

USCGC KATMAI BAY	(WTGB 101)	Sault Sainte Marie, MI
USCGC BRISTOL BAY	(WTGB 102)	Detroit, MI
USCGC MOBILE BAY	(WTGB 103)	Sturgeon Bay, WI
USCGC BISCAYNE BAY	(WTGB 104)	Saint Ignace, MI
USCGC NEAH BAY	(WTGB 105)	Cleveland, OH

## CAPABILITY

- (a) The Bay class of ice breaking tugs is designed to be able to break 24 inches of ice continuously and up to 8 feet of ice by backing and ramming. The cutters are outfitted and capable of conducting a variety of law enforcement missions including suppression of drugs, fisheries patrols, and illegal migrant interdiction; in addition to being able to support the vessel of opportunity (VOSS) skimming system for the recovery of spilled oil. The bow section of two vessels on the Great Lakes have been modified to allow them to push 120 Foot Aids to Navigation (AtoN) barges. These vessels are capable of working all floating aids to navigation in the Coast Guard Inventory. The vessels are also capable of conducting lighthouse restoration projects.



(b) Physical Characteristics:

Length overall: 140 Feet  
 Beam: 37 Feet, 6 Inches  
 Full Load Draft: 12 Feet, 0 Inches  
 SHP: 2500  
 Full Load Displacement: 662 tons

(c) Operational Characteristics:

Crew: 17/27  
 Speed: 14.7 Knots  
 Cruising range: (distance/speed) 4000 Nautical Miles at 12.0 Knots  
 Endurance: (days unreplenished) 10 Days  
 Maximum seas: 15 Feet

(d) PESL - 2020

(e) These vessels are in good condition.

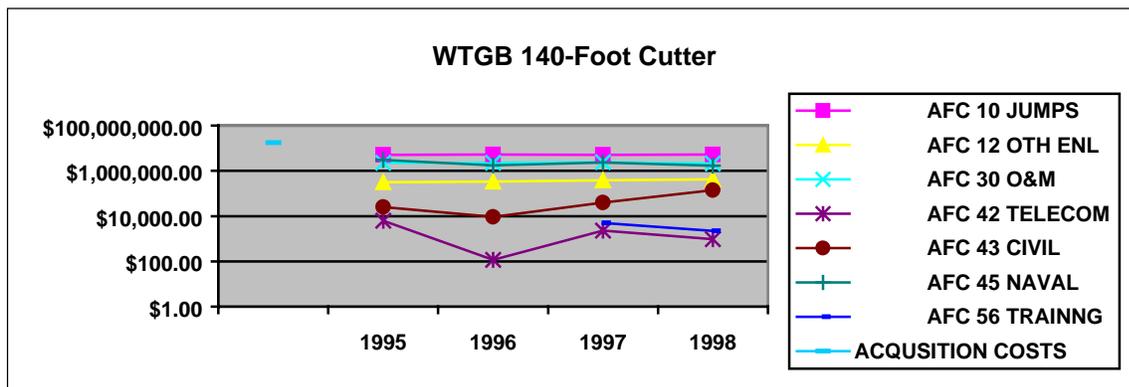
## FUNDING HISTORY

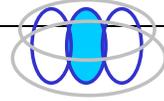
Acquisition Costs: **17,253,296**

Used unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. Unless otherwise indicated the costs have been averaged due to cost differentials. These are "cost-per-vessel" averages.

Actual operating expenditures: (data obtained from Web EIS-Corporate Database that has been coded specifically for WTGB 140' Class cost centers.)

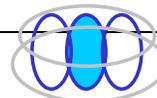
	1995	1996	1997	1998
AFC 01 JUMPS	5,117,444.84	5,294,145.64	5,141,246.87	5,296,207.73
AFC 12 OTH ENL	314,987.92	340,317.17	383,091.99	425,470.53
AFC 30 O&M	2,279,206.14	2,276,559.45	2,402,637.48	2,106,085.44
AFC 42 TELECOM	6,350.49	115.5	2,282.86	946
AFC 43 CIVIL	25,214.85	9,277.33	39,165.94	138,983.79
AFC 45 NAVAL	3,064,580.65	1,735,296.49	2,355,545.14	1,692,098.33





## CURRENT PERSONNEL ALLOWANCE

	WTGB	WTGB With Barge
Officer	2	2
Warrant Officer:	1	1
Enlisted:	14	24
TOTAL:	17	27



## ASSET

87-Foot (26.5 M) Marine Protector-Class Patrol Boat (WPB-87)

## MISSION

The 87-Foot Patrol Boat will replace the 82-Foot Point-Class cutters that will meet or exceed their 30-year service-life expectancy at the end of 1999. The Coastal Patrol Boat will perform the same primary missions of law enforcement and search and rescue as its predecessor but in a more capable way. This vessel is faster, has better sea-keeping ability and is more habitable for the crews.



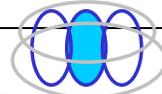
The Marine Protector-Class Patrol Boat support the following strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S4	P1, P4		C1, C2, C3	N1, N2

## INVENTORY

The Commandant has requested and the Transportation Secretary Acquisition Review Council (TSARC) has approved a fleet size of 50 vessels. These vessels will be stationed throughout the littoral zones of the United States. Below is a present listing of the commissioned 87-Foot Protector-Class Patrol Boat, and their respective homeport.

<u>87-Foot WPB Cutter</u>	<u>Hull Number</u>	<u>Homeport</u>	<u>Projected Delivery</u>
USCGC BARRACUDA	(WPB 301)	Eureka, CA	Delivered
USCGC HAMMERHEAD	(WPB 302)	Woods Hole, MA	Delivered
USCGC MAKO	(WPB 303)	Cape May, NJ	Delivered
USCGC MARLIN	(WPB 304)	Ft. Meyers, FL	Delivered
USCGC STINGRAY	(WPB 305)	Mobile, AL	Delivered
USCGC DORADO	(WPB 306)	Crescent City, CA	Delivered
USCGC OSPREY	(WPB 307)	Port Townsend, WA	Delivered
USCGC CHINOOK	(WPB 308)	New London, CT	Delivered
USCGC ALBACORE	(WPB 309)	Little Creek, VA	Delivered
USCGC TARPON	(WPB 310)	Tybee Island, GA	Delivered
USCGC COBIA	(WPB 311)	Mobile, AL	Delivered
USCGC HAWKSBILL	(WPB 312)	Oceanside, CA	Delivered
USCGC CORMORANT	(WPB 313)	Fort Pierce, FL	Delivered
USCGC FINBACK	(WPB 314)	Cape May, NJ	Delivered
USCGC AMBERJACK	(WPB 315)	Port Isabel, TX	Delivered
USCGC KITTIWAKE	(WPB 316)	Nawiliwili, HI	January 26, 2000
USCGC BLACKFIN	(WPB 317)	Santa Barbara, CA	February 23, 2000
USCGC BLUEFIN	(WPB 318)	Fort Pierce, FL	March 22, 2000
USCGC YELLOWFIN	(WPB 319)	Charleston, SC	April 19, 2000
USCGC MANTA	(WPB 320)	Freeport, TX	May 17, 2000
USCGC COHO	(WPB 321)	Panama City, FL	June 14, 2000
USCGC KINGFISHER	(WPB 322)	Mayport, FL	July 12, 2000
USCGC SEAHAWK	(WPB 323)	Clearwater, FL	August 9, 2000
USCGC STEELHEAD	(WPB 324)	Nokomis, FL	September 6, 2000
USCGC BELUGA	(WPB 325)	Wrightsville Beach, NC	October 4, 2000
USCGC BLACKTIP	(WPB 326)	Oxnard, CA	November 1, 2000
USCGC PELICAN	(WPB 327)	Morgan City, LA	November 29, 2000



USCGC RIDLEY	(WPB 328)	Montauk, NY	December 27, 2000
USCGC COCHITO	(WPB 329)	Little Creek, VA	January 24, 2001
USCGC MANOWAR	(WPB 330)	Galveston, TX	February 21, 2001
USCGC MORAY	(WPB 331)	Jonesport, ME	March 21, 2001
USCGC RAZORBILL	(WPB 332)	Gulfport, MS	April 18, 2001
USCGC ADELIE	(WPB 333)	Everett, WA	May 16, 2001
USCGC GANNET	(WPB 334)	Cape Canaveral, FL	June 13, 2001
USCGC NARWHAL	(WPB 335)	Fort Lauderdale, FL	July 11, 2001
USCGC STURGEON	(WPB 336)	Newport Beach, CA	August 8, 2001
USCGC SOCKEYE	(WPB 337)	Grand Isle, LA	September 5, 2001
USCGC IBIS	(WPB 338)	Bodega Bay, CA	October 3, 2001
USCGC POMPANO	(WPB 339)	Cape May, NJ	November 1, 2001
USCGC HALIBUT	(WPB 340)	Gulfport, MS	November 28, 2001
USCGC BONITO	(WPB 341)	Marina Del Rey, CA	December 26, 2001

<u>87-Foot WPB Cutter</u>	<u>Hull Number</u>	<u>Homeport</u>	<u>Projected Delivery</u>
USCGC SHRIKE	(WPB 342)	Pensacola, FL	January 23, 2002
USCGC TERN	(WPB 343)	San Francisco, CA	February 20, 2002
USCGC HERON	(WPB 344)	Sabine, TX	March 20, 2002
USCGC WAHOO	(WPB 345)	Cape May, NJ	April 17, 2002
USCGC FLYINGFISH	(WPB 346)	Newport, RI	May 15, 2002
USCGC HADDOCK	(WPB 347)	San Diego, CA	June 12, 2002
USCGC BRANT	(WPB 348)	Half Moon Bay, CA	July 10, 2002
USCGC SHEARWATER	(WPB 349)	Port Angeles, WA	August 7, 2002
USCGC PETREL	(WPB 350)	Portsmouth, VA	September 4, 2002

## CAPABILITY

### Physical Characteristics

Length overall:	87-Feet
Beam:	19-Feet, 5-Inches
Draft:	5-Feet, 7-Inches
SHP:	3,000 Horse-Power
Full Load Displacement:	88 Metric-Tons

### Operational Characteristics

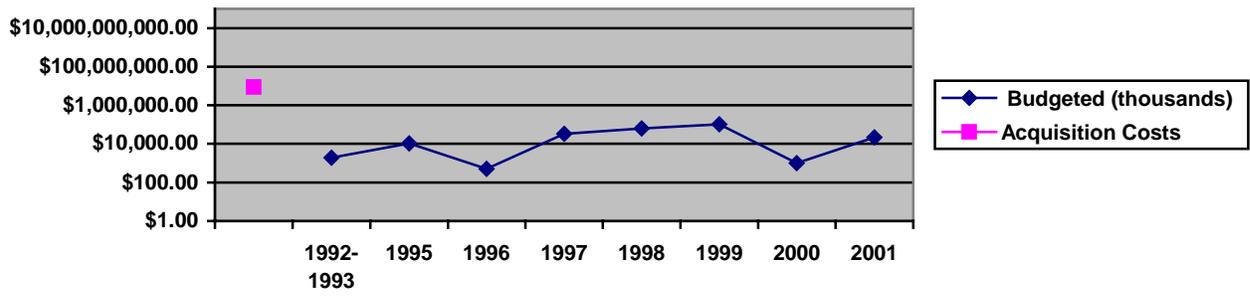
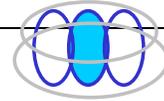
Crew:	10 (any gender mix)
Speed:	25 Knots
Cruising range:	900 Nautical Miles (85% at 10 Knots and 15% at 25 Knots)
Endurance:	3 days
Maximum seas:	6-Feet-to-8-Feet (2 – 2.5 M) (Sea State 5)

The projected service life is at least 25 years for the hull and structure.

## FUNDING HISTORY

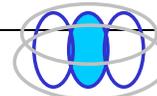
Below are the budgeted AC&I costs (in thousands) of the CPB Project. AFC-30, 42, and 45 funding are not applicable.

Fiscal Year	92-93	95	96	97	98	99	00	01
Budgeted (thousands)	\$ 1,900	\$ 10,400	\$ 500	\$ 33,100	\$ 63,000	\$ 103,700	\$ 1,000	\$ 22,000
Acquisition Costs	\$8,795,000.00							



## CURRENT PERSONNEL ALLOWANCE

Officer:	1 OR 0
Warrant Officer:	0
Enlisted:	9 or 10
GS:	0
WG:	0
Contract:	0
<b>TOTAL:</b>	<b>10</b>



## ASSET

82-Foot (25M) Point-Class Patrol Boat (WPB)

## MISSION(S)

The 37 Point class cutters were built between 1960-1970 and are being replaced by the 87-Foot Coastal Patrol Boat. The Point-Class Patrol Boats perform law enforcement and search & rescue missions and support the following Coast Guard strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2,S4	P1, P4		C1, C2, C3	N1, N2

## INVENTORY

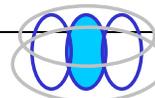
### 82-Foot WPB Cutter

	<u>Hull Number</u>	<u>Homeport</u>	<u>Projected Decommissioning</u>
USCGC POINT BAKER	(WPB 342)	Sabine Pass, TX	January 8, 2002
USCGC POINT BARNES	(WPB 371)	Ft. Pierce, FL	January 12, 2000
USCGC POINT BONITA	(WPB 347)	Norfolk, VA	November 14, 2000
USCGC POINT BRIDGE	(WPB 338)	Marina Del Ray, CA	October 16, 2001
USCGC POINT BROWER	(WPB 372)	San Francisco, CA	December 11, 2001
USCGC POINT CARREW	(WPB 374)	Oxnard, CA	August 23, 2000
USCGC POINT CHICO	(WPB 339)	Bodega Bay, CA	July 24, 2001
USCGC POINT DORAN	(WPB 375)	Everett, WA	March 6, 2001
USCGC POINT ESTERO	(WPB 344)	Gulfport, MS	February 8, 2001
USCGC POINT GLASS	(WPB 336)	Ft. Lauderdale, FL	May 2, 2001
USCGC POINT HANNON	(WPB 355)	West Jonesport, ME	January 11, 2001
USCGC POINT HIGHLAND	(WPB 333)	Chincoteague, VA	August 21, 2001
USCGC POINT LOBOS	(WPB 366)	Pensacola, FL	November 13, 2001
USCGC POINT MONROE	(WPB 353)	Gulfport, MS	September 19, 2001
USCGC POINT SAL	(WPB 352)	Grand Isle, LA	June 29, 2001
USCGC POINT SPENCER	(WPB 349)	Galveston, TX	December 12, 2000
USCGC POINT STUART	(WPB 358)	Newport Beach, CA	May 29, 2001
USCGC POINT WARDE	(WPB 368)	Wrightsville Beach, NC	July 26, 2000
USCGC POINT WELLS	(WPB 343)	Montauk, NY	October 18, 2000
USCGC POINT WINSLOW	(WPB 360)	Morgan City, LA	September 20, 2000

## CAPABILITY

### Physical Characteristics:

Length:	82-Foot (25M)
Beam:	17.6-Foot (5.4M)
Displacement:	67.6 Tons fully load



### Operational Characteristics

Speed:	22 Knots
Power Plant:	Two Caterpillar D341 2 Diesels
Range:	1,580 Nautical Miles
Armament:	Two .50 caliber machine guns
Complement:	10

Projected end of service life: 1999.

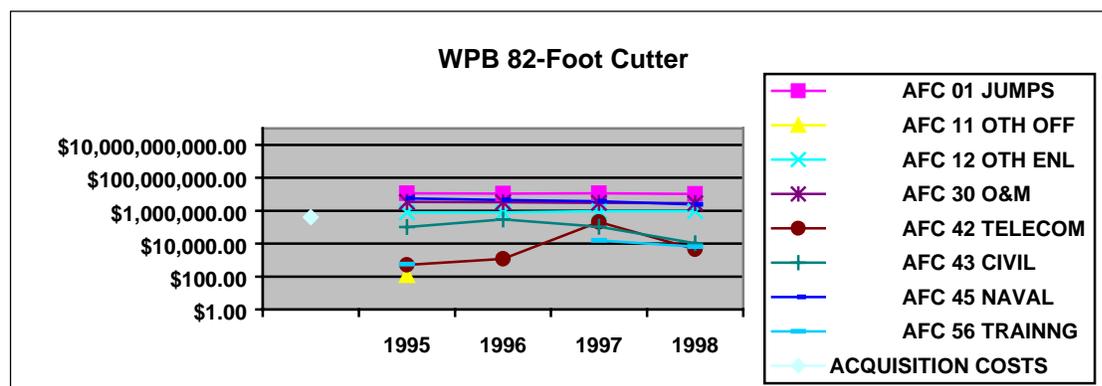
The overall condition of the Point Class fleet has been assessed as fair. Based on Ship's Structure and Machinery Evaluation Boards held in 1993, the hull and structure are expected to last until 2003. Replacement of this class by the 87' Coastal Patrol Boat (CPB) started in 1998.

## FUNDING HISTORY

Acquisition Costs: **\$405,000.00** Used unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. Costs have been averaged due to cost differentials.

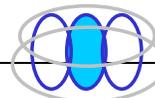
Actual operating expenditures: (information obtained from Web EIS-Corporate Database coded specifically for 82' WPB Class cost centers.)

	1995	1996	1997	1998
AFC 30 O&M	3,490,435.32	3,226,259.80	3,004,513.76	2,890,827.16
AFC 42 TELECOM	502.33	1,159.40	206,982.34	4,418.11
AFC 43 CIVIL	100,265.65	300,885.90	108,421.23	10,676.74
AFC 45 NAVAL	5,486,000.69	4,468,328.29	3,726,084.11	2,371,975.62



## CURRENT PERSONNEL ALLOWANCE

Officer:	1 or 0
Warrant Officer:	
Enlisted:	9
GS:	0
WG:	0
Contract:	0
<b>TOTAL:</b>	<b>10</b>



## ASSET

65-Foot (19.8M) Harbor Tugs, Small (WYTL)

## MISSION(S)

The primary activities of these harbor tugs are domestic ice breaking, port security, search and rescue, and law enforcement operations in rivers and near shore area.

The Harbor Tugs support the following Coast Guard strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P1, P2, P3, P4	M1, M2, M3		N1, N2

## INVENTORY

The Coast Guard operates a total of 11 vessels in the First and Fifth Coast Guard Districts. The vessels are located as follows:

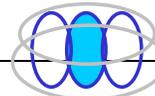
<u>Cutter</u>	<u>Hull</u>	<u>Homeport</u>
USCGC CAPSTAN	(WYTL 601)	Philadelphia, PA
USCGC CHOCK	(WYTL 602)	Portsmouth, VA
USCGC TACKLE	(WYTL 604)	Rockland, ME
USCGC BRIDLE	(WYTL 607)	Southwest Harbor, ME
USCGC PENDANT	(WYTL 608)	Boston, MA
USCGC SHACKLE	(WYTL 609)	South Portland, ME
USCGC HAWSER	(WYTL 610)	Bayonne, NJ
USCGC LINE	(WYTL 611)	Bayonne, NJ
USCGC WIRE	(WYTL 612)	Saugerties, NY
USCGC BOLLARD	(WYTL 614)	New Haven, CT
USCGC CLEAT	(WYTL 615)	Philadelphia, PA

## CAPABILITY

- (a) The WYTLs have the ability to perform ice-breaking services in up to 12 inches of ice. The fleet of WYTLs are routinely used for a variety of missions which include search and rescue, to establish and maintain security and safety zones for marine events, as escort vessel for Liquid Natural Gas (LNG) tankers, and as a law enforcement platform.

### Physical Characteristics

Length overall:	65 Feet
Beam:	19 Feet
Full Load Draft:	7 Feet
SHP:	500
Full Load Displacement:	72 Tons



Operational Characteristics

Crew:	6
Speed:	10 Knots
Cruising range: (distance/speed)	850 Nautical Miles at 10.0 Knots
Endurance: (days unreplenished)	2 days
Maximum seas:	6 ft

- (b) To date, three of the WYTLs have had engine upgrades, which has increased the shaft HP on these vessels to 500. In addition a generator upgrade has been installed on these vessels. Any additional engine replacements will be dependent on retaining the class of vessels in service. The vessel class as a whole has been excluded from the FY2000 budget.
- (c) PESL - 2020. Continued service of these vessels will depend on completing the engine/generator replacement project if a decision is made to retain them in service.

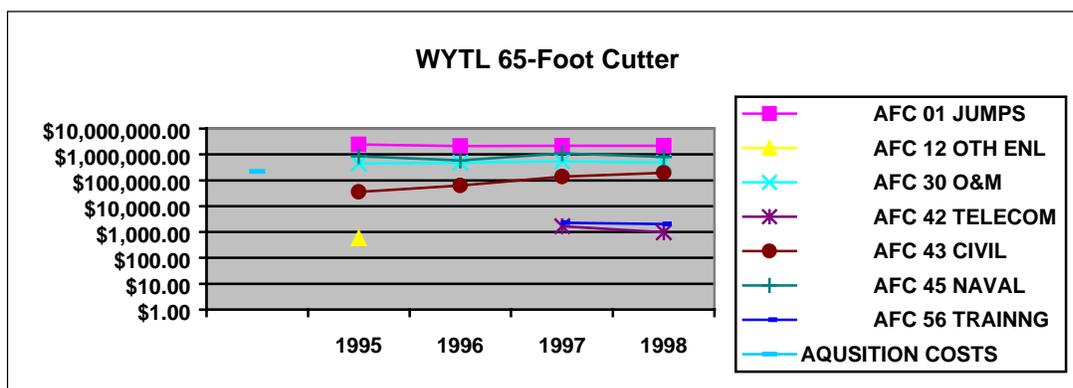
## FUNDING HISTORY

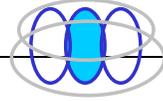
Acquisition Costs: **\$218,916**

Unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. Costs have been averaged due to cost differentials.

Actual operating expenditures: (information obtained from Web EIS-Corporate Database coded specifically for WYTL 65' Class cost centers.)

	1995	1996	1997	1998
AFC 30 O&M	444,411.55	481,018.08	542,600.06	482,961.81
AFC 42 TELECOM			1,673.75	983
AFC 43 CIVIL	35,234.22	63,411.00	137,938.29	196,965.28
AFC 45 NAVAL	843,057.57	588,049.32	1,111,406.81	813,249.81

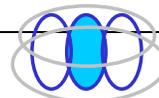




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## CURRENT PERSONNEL ALLOWANCE

Officer:	0
Warrant Officer:	0
Enlisted:	6
GS:	0
WG:	0
Contract:	0
<b>TOTAL:</b>	<b>6</b>



## ASSET

64' (20M) Aids to Navigation Boat

## MISSION(S)

The 64' ANB project was initiated to provide an off-the-shelf vessel to work in the riverine environments deemed unsuitable for a stern loading buoy boat (i.e. 49' BUSL).

The 64' Aids to Navigation Boat supports the following Coast Guard strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2	P3	M1		

## INVENTORY

Four boats were originally planned. Three 64' ANBs are located in the Eighth District; one boat is stationed at ANT Eufaula, one at ANT Corpus Christi, and one at ANT Colfax. The contractor for this program defaulted on the fourth hull when it was 40% complete. This boat has been surveyed and disposed of in CY99.

## CAPABILITY

The 64' ANBs are the ideal replacement for the gap identified in the Short Range Aids Mission Analysis (SRAMA). Operational Test and Evaluation has been completed and has proven this is the right platform for the job assigned. We plan to conduct additional analysis to identify all areas where the requirements may dictate a need for a 64' ANB. However, a new solicitation would be needed before more could be purchased. Present support funding levels may be inadequate and additional data is being collected in that regard.

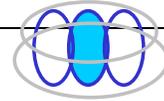
### Physical Characteristics:

Length overall:	63' 8"
Beam:	24'
Full Load Draft:	4'
SHP:	600
Full Load Displacement:	120 tons

### Operational Characteristics:

Crew:	4
Speed:	9 knots
Cruising range:	500NM @ 9 knots
Endurance:	4 (days unreplenished)
Maximum seas:	3'

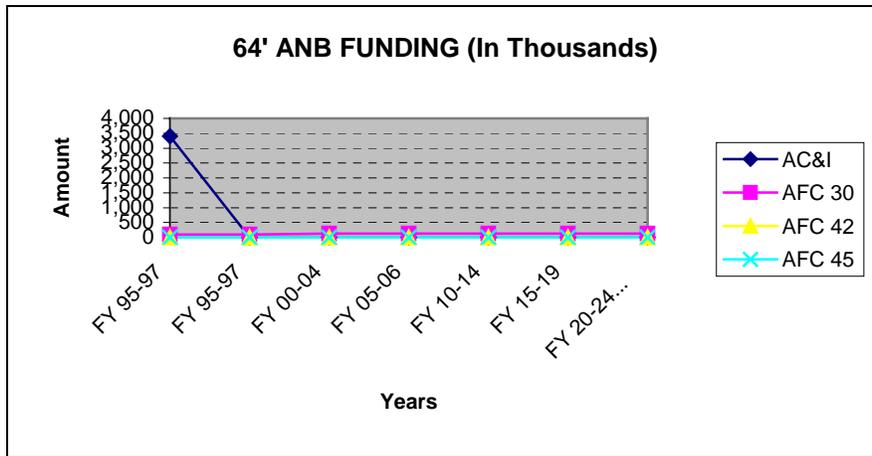
Projected end of service life: begins in 2016.



## FUNDING HISTORY

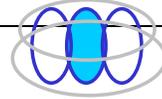
The 64' ANB project began in 1995 with a \$2.7M, three boat contract with Owen-Short Manufacturing, Inc. in Bayou La Batre, AL. In 1996 an option was awarded to build one additional boat for \$785K. The funding per hull is currently

\$31K for AFC-30,  
 \$5K for AFC-45, and  
 \$1,300 for AFC-42.



## CURRENT PERSONNEL ALLOWANCE

All boats are crewed by the unit to which they are assigned.



## ASSET

55' (17M) Aids to Navigation Boat

## MISSION(S)

The 55'ANB was designed to be a quick response Aids to Navigation boat for offshore fixed and floating aids. It can only work small buoys. The 55'ANB supports the following Coast Guard strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2	P3	M1		

## INVENTORY

Of the 22 original 55'ANBs, there are twenty remaining in service. Two are being used as IMARV platforms. The other eighteen are distributed as follows: 2 boats in the First District, 3 in the Fifth District, 3 in the Seventh District, and 10 in the Eighth District.

## CAPABILITY

The 55'ANBs are serving three years beyond their planned end of service life. The Coastal Zone Mission Analysis was completed in spring 1998. A SSMEB was completed on these boats in 1999, with the final results expected to be formalized prior to the year's end. Preliminary reports indicate an additional 5 to 10 years maximum life remaining for these boats. BOATALTS have been completed to upgrade the sewage, remove the fire pump, and upgrade the boats' hatches.

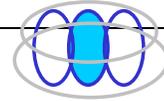
These boats have limited berthing areas and crew support capabilities, with no mixed gender crew provisions. This boat's lifting abilities are severely limited by its stability.

### Physical Characteristics:

Length overall:	55'
Beam:	16' 10"
Full Load Draft:	5' 6"
SHP:	1080
Full Load Displacement:	68 tons

### Operational Characteristics:

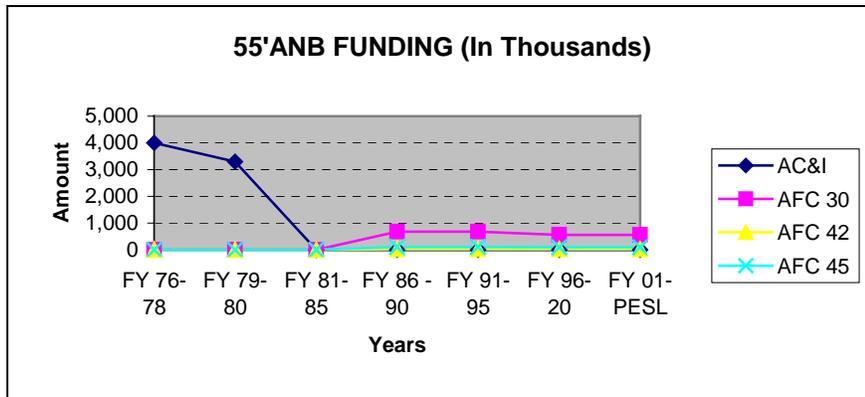
Crew:	4
Speed:	23 knots
Cruising range:	350NM @ 23 knots
Endurance:	4 (days unreplenished)
Maximum seas:	6'



## FUNDING HISTORY

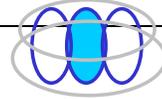
The 55'ANB project began in 1977. 12 boats were purchased for \$330K each. After a three year transition, 10 additional boats were built at the Coast Guard YARD for the same price. There was no standard level of support funding until 1986. The funding for each hull was then set at

- \$31K for AFC-30,
- \$5K for AFC-45, and
- \$1,300 for AFC-42 funding.



## CURRENT PERSONNEL ALLOWANCE

All boats are crewed by the unit to which they are assigned.



## ASSET

49' Stern Loading Buoy Boat (BUSL)

## MISSION(S)

The 49-BUSL mission is to provide transportation and servicing capabilities for Aids to Navigation Teams (ANT's) in support of the Short Range Aids to Navigation Mission. This includes routine observation and inspection of all unmanned aids to navigation, correction of most unmanned aids to navigation discrepancies, and establishing and maintaining both lit and unlit buoys.



The 49-BUSL supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2	P3	M1		

## INVENTORY

To date we have 14 boats in service. Nine boats are in First District, two in Fifth District, one in Seventh District, and two in Ninth District. The remaining boats will be spread throughout the Coast Guard, replacing all but three 45' BUs, all 46' BUSLs, and some WLIs and WLICs. A total fleet size of 26 boats will comprise this vessel class.

## CAPABILITY

The 49-foot BUSL is replacing the 45-BU and 46-BUSL. The 49-BUSL provides the following improvements: Differential Global Positioning System (DGPS) linked to the boat's steering and charting system; mixed gender crew berthing flexibility; separate messing and berthing areas; on board sanitary facilities; improved maneuverability (twin screws); 4-inch icebreaking capability; 4,500 pound lifting capacity. There still remains a gap in the capability to work aids in some riverine environments; more mission analysis needs to be completed.

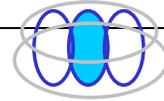
### Physical Characteristics:

Length overall: 49 feet, 2-1/4 inches  
 Beam: 16 feet, 10 inches  
 Full Load Draft: 5 feet, 6 inches  
 SHP: 600 HP  
 Full Load Displacement: 49 tons

### Operational Characteristics:

Crew: Usually deploys with 4; coxswain, engineer, two buoy deck  
 Speed: 10 knots  
 Cruising range: 300 NM @ 10 knots  
 Endurance: 4 days (days unreplenished)  
 Maximum seas: 6'

Designed Service Life: 20 years ; first 49-BUSL will reach end of service life in FY-2017.



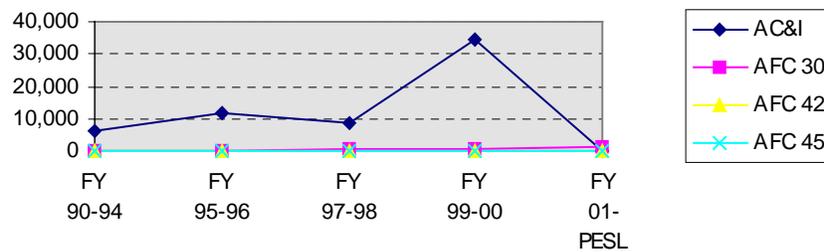
## FUNDING HISTORY

(a) Distribution of acquisition cost (in thousands)

### AC&I FUNDING (000)

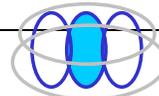
FY91	FY92	FY93	FY94	FY95	FY96	FY97	FY98	FY99	Rqst FY00	Rqst FY01
1,000	3,900	500	750	11,700	-0-	7,800	12,000	11,773	7,000	1,100

### 49'BUSL FUNDING (In thousands)



## CURRENT PERSONNEL ALLOWANCE

All boats are crewed by the unit to which they are assigned.



## ASSET

47' (15M) Motor Lifeboat (MLB)

## MISSION(S)

The 47' MLB is primarily designed as a fast response rescue resource in high seas, surf, and heavy weather environment. It is the replacement of the aging 44' MLB fleet that is quickly nearing the end of its useful service-life. The 47' MLB supports the Coast Guard strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P3, P4		C1	

## INVENTORY

Presently, the Coast Guard operates 31 vessels within the First, Fifth, Ninth, Eleventh, and Thirteenth Districts. Final inventory number will be 117 boats, Coast Guard wide.

## CAPABILITY

The acquisition the 47' MLB represents a significant improvement in capability over the Coast Guard's present heavy weather resource fleet. It incorporates inherent self-righting capability with the fast response (25 kts) dimension lacking in the 44' MLB fleet. Additional features include: 4 control stations; one each on port and starboard open bridge and two in climate controlled enclosed bridge; amidships retrieval ports for easy personnel recoveries, boardings and rescues; bridge windows designed for low glare and protection from wave action; all stainless steel fittings for corrosion resistance; excellent visibility in open and enclosed conning stations; electronic engine and fuel management system; and state of art integrated electronics suite.

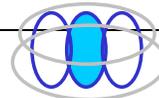
### Physical Characteristics:

Length overall:	47' 11"
Beam:	14', 15' 4" w/fenders
Full Load Draft:	4' 6"
BHP:	435
Displacement (hoisting):	40,000 lbs.

### Operational Characteristics:

Crew:	4
Speed:	25+ Knots
Cruising range:	200nm @20kts w/ 10% res.
Endurance:	12 hours
Maximum seas:	30' seas, 20' surf, 50 knot winds, self-rights in 6 sec.

The project service life is at least 25 years for the hull and structure.

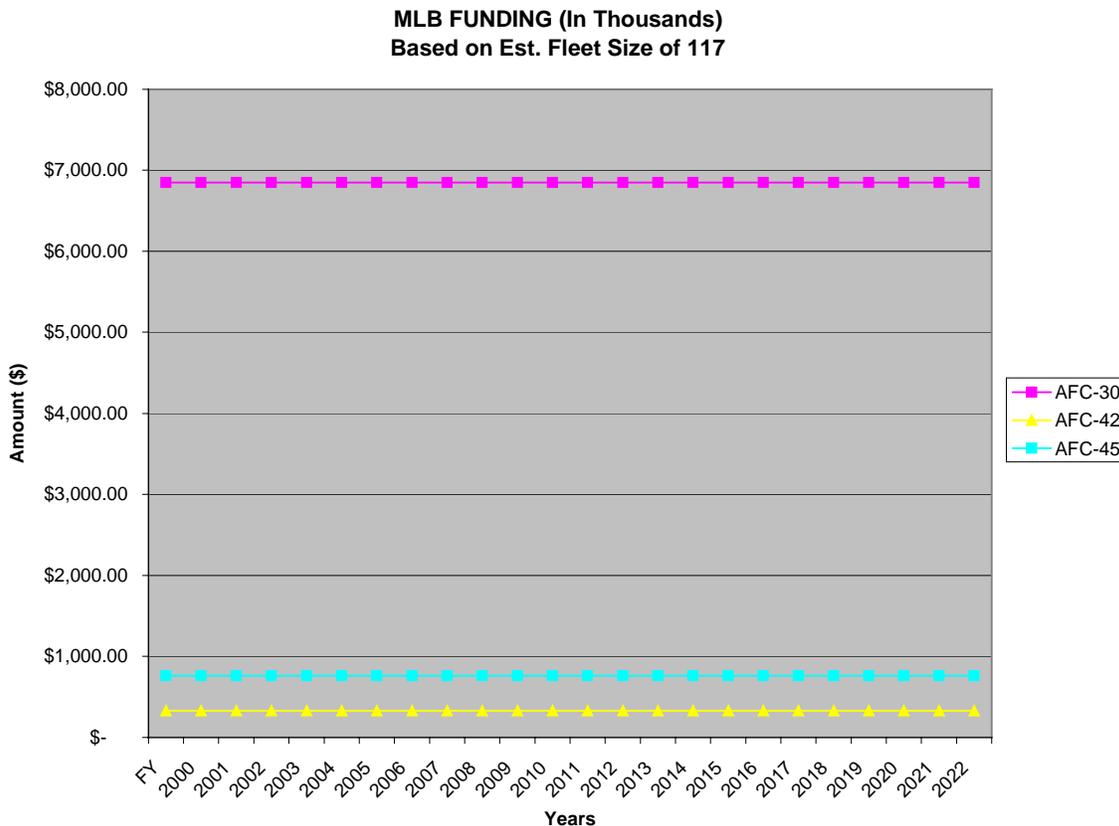


## FUNDING HISTORY

(a) Below is the budgeted AC&I costs (in thousands) of the MLB Project. AFC-30, 42, and 45 funding are not applicable.

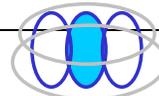
FY	88	89	90	91	92	93	94	95	96	97	98	99	00
Budgeted	2,500	500	5,783	990	1,250	2,400	-	30,600	400	26,000	31,600	20,800	24,400

(b) Funding Graph (Note: No AC&I funding required after FY 2000)



## CURRENT PERSONNEL ALLOWANCE

All boats are crewed by the unit to which they are assigned.



## ASSET

46' (14M) Buoy Boat – Stern Loading (BUSL)

## MISSION(S)

The 46' BUSL was designed to service Aids to Navigation on inland waters. The 46' BUSL supports the following Coast Guard strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2	P3	M1		

## INVENTORY

Due to age, there are only five of the original fifteen 46'BUSLs remaining in service. All five are assigned to the Fifth District. This vessel class is being systematically replaced by the newer, more capable, 49' BUSL.

## CAPABILITY

Maintenance funding will continue until the boats are replaced by 49' BUSLs in mid CY00. This replacement is in keeping with the recommendations of the Short Range Aids Mission Analysis. These boats have limited berthing areas and crew support capabilities, with no mixed gender accommodations. Hoisting capabilities are limited to 4000 lbs.

### Physical Characteristics:

Length overall:	46' 4"
Beam:	16' 2"
Full Load Draft:	5' 1"
SHP:	180
Full Load Displacement:	55 tons

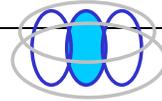
### Operational Characteristics:

Crew:	4
Speed:	9 knots
Cruising range:	440NM/9 knots
Endurance:	2 (days unreplenished)
Maximum seas:	3'

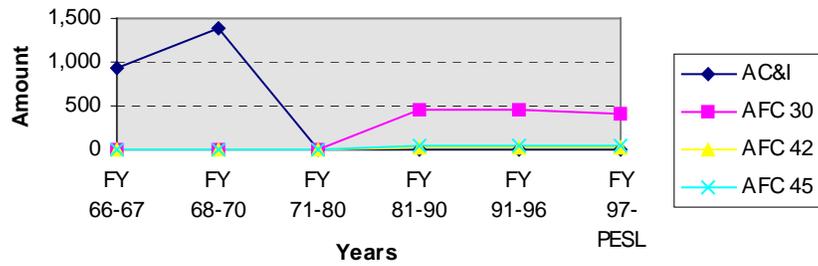
## FUNDING HISTORY

(a) Fifteen 46'BUSLs were built between 1966 and 1969 at a cost of \$154K each. Standard maintenance funding for ATON boats did not commence until 1986. Annual funding for each hull was then set at:

AFC-30	\$31,000
AFC-45	\$ 3,300
AFC-42	\$ 1,300.

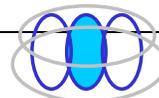


**46'BUSL FUNDING (In Thousands)**



## CURRENT PERSONNEL ALLOWANCE

All boats are crewed by the unit to which they are assigned.



## ASSET

45' (14M) Buoy Boat (BU)

## MISSION(S)

The 45'BU services Aids to Navigation in inland waters. These boats have been in service since the 1950s. All but three 45' BUs have been replaced by the 49'BUSL.

The 45'BU supports the following Coast Guard strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2	P3	M1		

## INVENTORY

Due to age, there are only three of the seventeen original 45' Bus remaining in service. One boat is in the First District and two boats are in the Fifth District. These vessels have been systematically replaced by the newer, more capable, 49' BUSL.

## CAPABILITY

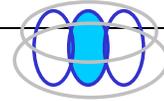
We are continuing to fund maintenance costs until the boats are replaced. These boats have limited berthing area and crew support capability, with no mixed gender provisions. There are high noise levels present throughout the boats. Hoisting capabilities limited to buoys of up to 4,000 lbs. All but the three remaining 45' BUs were replaced by 49' BUSLs. This replacement is in keeping with recommendations of the Short Range Aids Mission Analysis.

### Physical Characteristics:

Length overall:	45' 3"
Beam:	15'
Full Load Draft:	3' 2"
SHP:	180
Full Load Displacement:	65 tons

### Operational Characteristics:

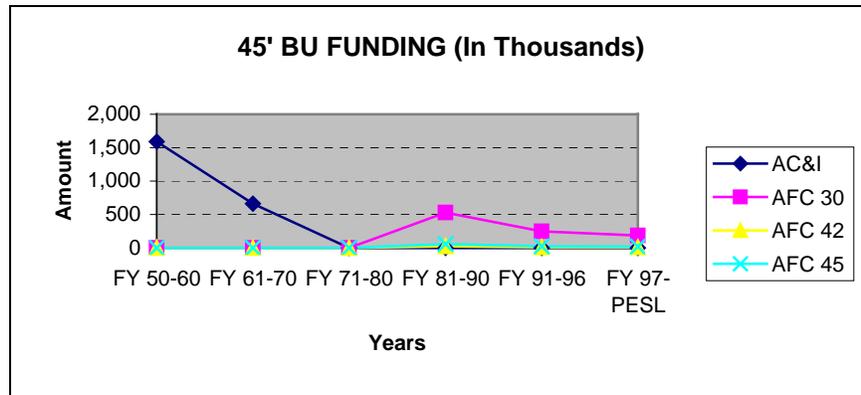
Crew:	4
Speed:	8.5 knots
Cruising range:	295NM @ 8.5 knots
Endurance:	2 (days unreplenished)
Maximum seas:	2'



## FUNDING HISTORY

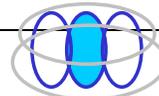
Seventeen 45' BUs were purchased between 1954 and 1962 at a cost of \$132K each. Standard maintenance funding for ATON boats did not commence until 1986. Annual funding per hull was then set at:

AFC-30	\$31,000
AFC-45	\$ 3,300
AFC-42	\$1,300



## CURRENT PERSONNEL ALLOWANCE

All boats crewed by the unit to which they are assigned.



## ASSET

44' (13M) and 52' (16M) Motor Lifeboats (MLB)  
(44' MLB pictured at right)

## MISSION(S)

The 44' MLB is the Coast Guard's standard heavy weather and surf rescue response platform. It is quickly nearing the end of its useful service life. Replacements by the 47' MLB have begun and will continue through the year 2002.

The 44' MLB supports the following Coast Guard strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P3, P4		C1	

## INVENTORY

The fleet of 44' MLBs is presently comprised of 44 boats. Two are used as training platforms at the National Motor Lifeboat School (Ilwaco, WA), 7 operate in the Great Lakes region, 14 serve in the Northeast and Mid-Atlantic coastal areas and the remaining 21 vessels are operated in the Pacific Northwest (15) and California (6). There are only four 52' MLBs and all augment the 44' MLB capabilities within the Thirteenth District.

## CAPABILITY

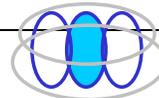
Despite its age, the 44' MLB has proven itself to be a very reliable asset. DGPS capability is being added in response to the planned phase out of LORAN-C. There are no other planned upgrades. Mechanical supportability has emerged as a concern since some parts are no longer being manufactured. However, overall the fleet is in fair condition and should serve without major problems until the transition to the new 47' MLB is complete in FY 2002.

### Physical Characteristics (44' MLB):

Length overall:	44' 2"
Beam:	12' 8"
Full Load Draft:	3' 6"
SHP:	370
Full Load Displacement:	39,500 lbs

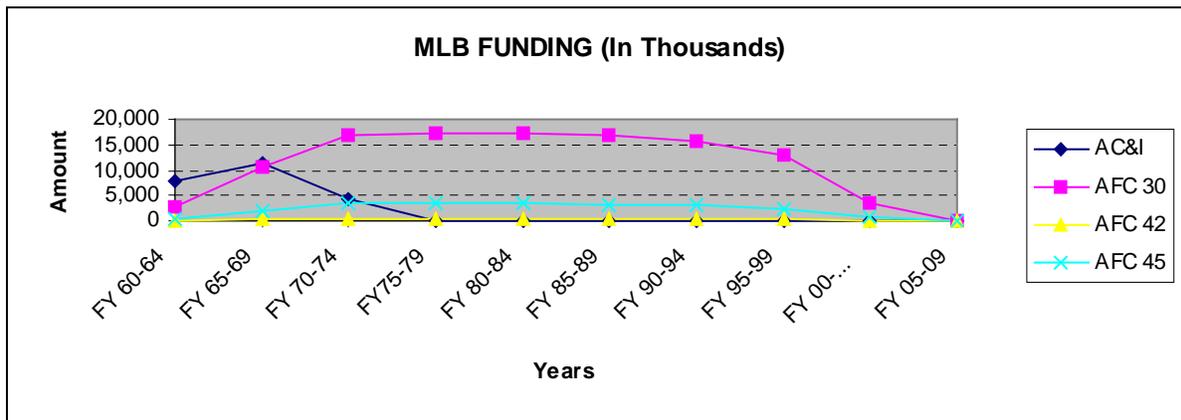
### Operational Characteristics (44' MLB):

Crew:	3
Speed:	13 knots
Cruising range:	215NM @ 13 knots
Endurance:	1 (days unreplenished)
Maximum seas:	30' / 20' surf
	<b>Self righting/ Self sailing within 30 seconds of capsizing</b>



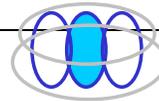
## FUNDING HISTORY

Production of the 44' MLB began at the Coast Guard Yard in 1961 and continued until 1972, with 105 boats being built during that period. Average cost for each hull was \$225,000 (based upon 1972 dollars). Presently, \$3.5M is spent annually in operating and maintenance costs for the 89 MLBs remaining in the fleet. This represents a cost of \$40.7K for each hull in service.



## CURRENT PERSONNEL ALLOWANCE

All boats are crewed by the unit to which they are assigned.



## ASSET

41' (13M) Utility Boat – Big (UTB)

## MISSION(S)

The 41' UTB is the general workhorse at multi-mission units. It is designed to operate under moderate weather and sea conditions where its speed and maneuverability make it an ideal platform for a variety of missions. The boats also are a valuable coxswain (SYSCEN) and aircrew (AIRSTAs) training asset.



The 41' UTB supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P3, P4		C1, C2	

## INVENTORY

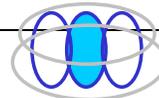
The 183 boats which comprise the 41' UTB fleet can be found in service in all Coast Guard districts. 10 are located at the UTB Systems Center in Yorktown, VA where training and prototyping efforts are carried out. 24 UTBs are assigned on the West Coast, including Hawaii and Alaska. The remainder (159) are assigned throughout the East and Gulf Coasts and Puerto Rico.

## CAPABILITY

The 1998 Ship's Structure and Machinery Evaluation Board resulted in an "overall good" rating of the UTB's condition class-wide. The evaluation reported a remaining hull life of ten years and engine life of five years. Presently, the UTB is expected to continue serving until approximately the year 2005. Continued high tempo operations at or near established operating limits have resulted in numerous structural weld cracks in the UTB's hull; these have been systematically corrected as a class-wide problem. ¾ of the UTB fleet has received an upgraded electronics package which includes DGPS integrated with the radar and the addition of an HF radio for reliable offshore communications. Approximately \$1.0M is required to complete the project over the next few years. Even though the manufacturer has stopped producing the Cummins VT903 engines used in the UTB, sufficient spares exist within our inventory to continue safe and reliable operations. The ELC is actively investigating other replacement alternatives. Other accessories (e.g., helm assembly) have become obsolete and are no longer produced. The advent of numerous go-fast vessels with superior speed capabilities over the UTB have reduced its effectiveness in certain law enforcement and chase/fast response situations. Upon completion, the Boat Mix Analysis Part II will describe the capabilities required of a replacement boat.

### Physical Characteristics:

Length overall:	41' 4"
Beam:	14' 1"
Full Load Draft:	4' 1"
SHp:	340
Full Load Displacement:	30,000 lbs

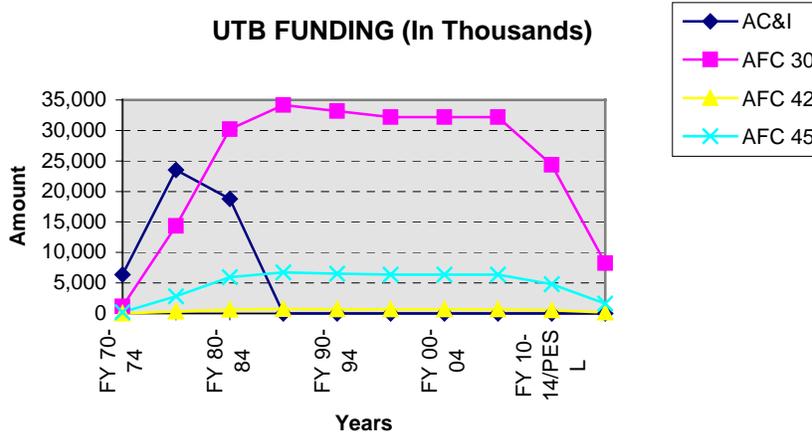


Operational Characteristics:

Crew:	3
Speed:	26 knots
Cruising range:	300NM @ 26 knots
Endurance:	1 day
Maximum seas:	10'
Maximum winds:	30 knots

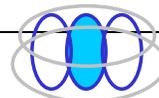
## FUNDING HISTORY

(a) The 41' UTB was built at the Coast Guard Yard beginning in 1973. The production run ended in 1983 with 207 UTBs being built. The average cost per hull, based upon 1979 figures, was \$235,000. Annually, support costs for each UTB average \$38,200, totaling just over \$7.5M for the entire fleet. This figure is rising as the "multi-mission workhorse" ages and accumulated operating hours (610/year) require engine overhauls (\$35K each).



## CURRENT PERSONNEL ALLOWANCE

All boats are crewed by the unit to which they are assigned.



## ASSET

30' (9M) Surf Rescue Boat (SRB)

## MISSION(S)

The 30' SRB is a Search and Rescue response platform designed to augment the capabilities of the 44' (13M) Motor Lifeboat (MLB) in moderately heavy seas and surf conditions (6'-8' surf) where high transit speeds are important.

The 30' SRB supports the following Coast Guard strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5				

## INVENTORY

Almost all the nine 30' SRBs currently in service today are located on the West Coast - two in the Eleventh District and six in the Thirteenth District. The remaining SRB is located on the East Coast in the First District.

## CAPABILITY

The 30' SRB was specifically designed and built to meet the fast response/high speed requirement not provided by the capabilities of the much slower 44' MLB. It is also capable of safely towing distressed vessels up to 40' in length. Its maneuverability, coupled with speed capability, make it an excellent surf zone response vessel. A Ship's Structure and Machinery Evaluation Board convened in September of 1996 to determine the materiel condition of the SRB fleet. Overall, it was determined the fleet was in "Good to Fair" condition and had an estimated remaining service-life of 5-10 years. The only major class-wide problem noted was water intrusion in the hull. No action on a class-wide basis is planned to correct this problem.

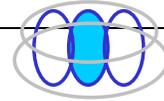
On-going efforts such as the Coastal Zone Mission Analysis will determine if a replacement of this capability is required, especially in light of the recent introduction of the 47' MLB into the Coast Guard's inventory.

### Physical Characteristics:

Length overall:	30' 4"
Beam:	9' 4"
Full Load Draft:	3' 7"
SHP:	375
Full Load Displacement:	11,500 lbs

### Operational Characteristics:

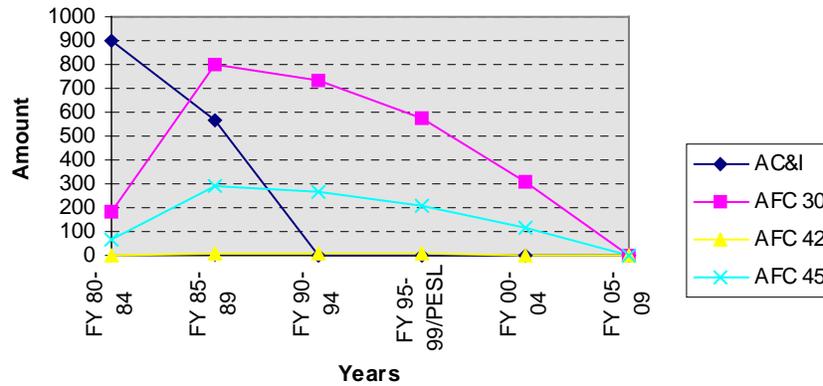
Crew:	2
Speed:	31 knots
Cruising range:	150NM @ 30 knots
Endurance:	1 (days unreplenished)
Maximum seas:	15'/10' surf
	<b>Self Righting/ Self Bailing</b>



## FUNDING HISTORY

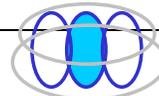
Willard Marine built the original 14 SRBs placed into service during the period 1982 to 1986. Average cost for each hull was \$113,000. Annual operating cost per hull is \$16,550 which amounts to ~\$150,000 for the entire fleet of nine boats still in service.

**SRB FUNDING (In Thousands)**



## CURRENT PERSONNEL ALLOWANCE

All boats are crewed by the unit to which they are assigned.



## ASSET

21' Trailerable Aids to Navigation Boat (TANB)

## MISSION(S)

The 21' TANB is a multi-mission platform, primarily designed to bring versatility and speed to the ATON rapid discrepancy response mission. It can also service small buoys up to 250lbs.

The 21' TANBs support the following Coast Guard strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2	P3	M1		

## INVENTORY

There are eighty-two 21'TANBs remaining in service, as a result of boats becoming excess to units' needs after district ATON restructuring. The boats are located as follows: 11 boats in the First District, 13 in the Fifth District, 18 in the Seventh District, 19 in the Eighth District, 12 in the Ninth District, 3 in the Eleventh District, and 5 in the Thirteenth District. In addition, one is based in Yorktown.

## CAPABILITY

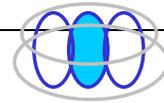
The 21' TANB has been an outstanding platform for the Coast Guard since its inception. The end of service life for the 21'TANB was between 1991 and 1995. However, due to our on-going TANB renovation project, the new projected end of service life is approximately the year 2004. We are currently renovating TANBs when their engines wear out. This renovation program has proven itself successful; we are getting "like new" boats (5 to 7 years of additional service life) at half the cost of buying a new boat.

### Physical Characteristics:

Length overall:	21' 6.5"
Beam:	7' 6"
Full Load Draft:	1' 4"
SHP:	225
Full Load Displacement:	6100 lbs

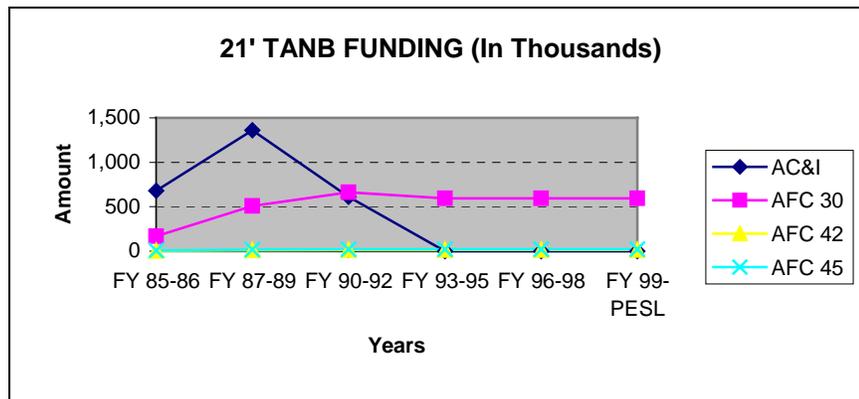
### Operational Characteristics:

Crew:	3
Speed:	30 knots
Cruising range:	100NM/30 knots
Endurance:	1 (days unreplenished)
Maximum seas:	3'



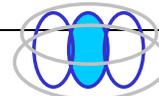
## FUNDING HISTORY

Seventy-eight 21' TANBs were built between 1982 and 1992 at a cost of \$34K each. The remaining boats in service were purchased prior to 1982 on other contracts. Standard maintenance funding for ATON boats commenced in 1986. AFC-30 funding for each hull was set at \$6,092 per year, AFC 45-\$300, and AFC 42-\$409.



## CURRENT PERSONNEL ALLOWANCE

All boats are crewed by the unit to which they are assigned to.



## ASSET

Non-standard Boats (NSB) –  
Miscellaneous Shore Based

## MISSION(S)

NSBs can be single (cable boats, flood relief punts, etc.) or multi-mission (UTL) boats filling in the capability gaps (fast response, shallow water response, cargo, etc.) of other unit-assigned resources. They support the following Coast Guard strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P1, P2, P3, P4	M1, M2, M3	C1	N1, N2

## INVENTORY

The 347 NSBs (miscellaneous – not including RIBs or Academy) in 11 different categories serve throughout the Coast Guard. However, not all categories are represented Coast Guard-wide. These platforms represent 38% of our entire boat inventory. Many perform a variety of missions, while others are used exclusively in specialized missions (i.e. cable servicing boats, ferries, ice rescue skiffs, etc.).

## CAPABILITY

NSBs offer flexibility, at a reduced cost, filling unique niches for boat resources where lower cost alternatives to standard boats are needed for specific mission or non-routine services. These NSBs lack the extra capability of the larger standard boats but are used when the full standard boat's capability is not required or should be reserved for more demanding mission responses.

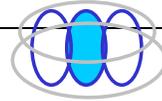
### Physical Characteristics:

Length overall:	15'-90'
Beam:	3'-30'
Full Load Draft:	6"-4'
SHP:	varies
Full Load Displacement:	varies

### Operational Characteristics:

Crew:	0-5
Speed:	2-30+ knots
Cruising range:	5-120 NM
Maximum seas:	1'-10'
Maximum winds:	20 knots

Estimated service life is 5 years.

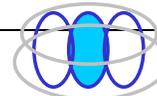


## FUNDING HISTORY

NSBs have not been the subject of centralized procurement efforts at HQ involving AC&I funds until recently. Current plans are to begin an acquisition to standardize the UTM and UTL portion of the NSB fleet. District Commanders are authorized to procure non-standard boats to fill operational needs linked to authorized allowances. Annually the Coast Guard spends between \$1.3M and \$2.5M (AFC-30 funds) on NSB replacements. The replacement value of our current shore based NSB inventory (excluding RIBs and IMARV) is approximately \$13.3M. Support costs total \$653K annually.

## CURRENT PERSONNEL ALLOWANCE

All boats are crewed by the unit to which they are assigned.



## ASSET

- (a) Type: Shore Operations
- (b) Name: COAST GUARD ACTIVITIES
- (c) Location(s):
  - New York, NY
  - Baltimore, MD
  - San Diego, CA
- (d) Business Line(s): Safety, Protection of Natural Resources, Mobility, Maritime Security, National Defense

## MISSION(S)

Provide command and control to coordinate all resources within the Activity's area of responsibility (usually within a single port).

Coast Guard Activities support the following Coast Guard strategic and performance goals:

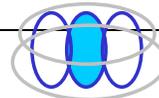
CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P1, P2, P3, P4, P5, P6	M1, M2, M3, M4, M5	C1, C2, C3	N1, N2, N3, N4

## PHYSICAL PLANT

- (a) Multiple Site Unit
- (b) Total acreage: Approximately 185 acres
- (c) Number of buildings: Over 200 (see MSO/Group/Air Station inventory pages for discussion regarding number of buildings and square footage.)
- (d) Total square footage: Over 1.5 million (includes interior and near-interior spaces, due to shortcomings of data)
- (e) Primary Build/Structure
  - (1) Unit space, such watch centers, WPB office space, hangars, station buildings, VTS buildings
  - (2) Housing (UPH and family)
- (f) Tenant Command(s): Various
- (g) Unique Equipment/Facility: Equipment and facilities include a wide variety of items, including waterfront (piers, breakwaters), aircraft-related equipment, heritage buildings.

## CAPABILITY

- (a) Section under development
- (b) Section under development
- (c) Section under development
- (d) Section under development
- (e) PESL for shore facilities is 25 years, with another 15 after a major rehabilitation. 60 buildings are over PESL, some built before 1920 (20 are heritage buildings). An additional 14 buildings are within five years of PESL.
- (f) Problem areas, technology issues, etc.: - See sheets on Marine Safety Offices, Air Stations, Groups for specific information that also affects Activities.
- (g) For newest assets, discuss improvements over old assets in terms of costs and capability/capacity: - See sheets on Marine Safety Offices, Air Stations, Groups for specific information that affects Activities San Diego.



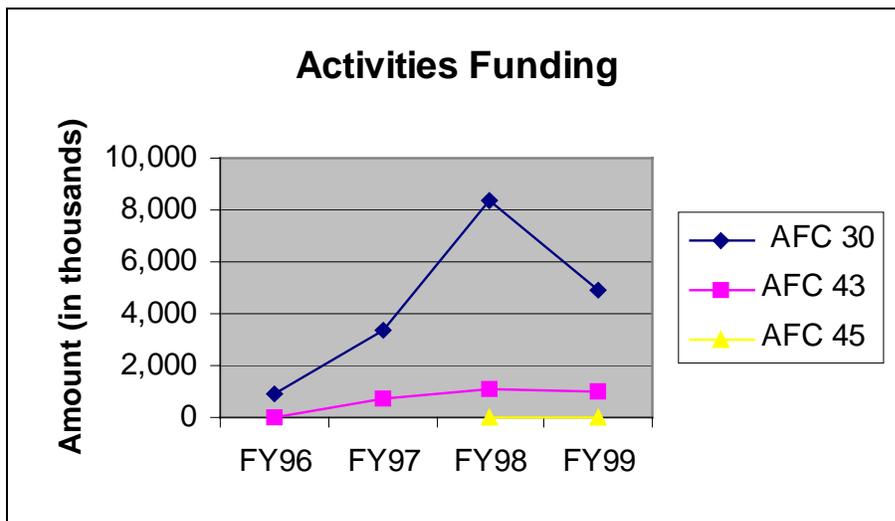
## FUNDING HISTORY

(a) Section under development

(b) Average annual OE costs related to preserving capability:

Budgeted Costs (in thousands):

	FY96	FY97	FY98	FY99 (thru Q3)
AFC 30	897	3,409	8,399	3,928
AFC 43	1	689	1,067	796
AFC 45			20	6

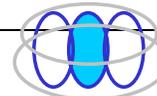


(1999 full estimate based on Q3 figures)

## CURRENT PERSONNEL ALLOWANCE

(San Diego Activities' subordinate units captured under respective unit type)

Officer:	75
Warrant Officer:	28
Enlisted:	267
GS:	
WG:	
Contract:	
TOTAL:	370



## ASSET

- (a) Type: Shore Operations
- (b) Name: CG AIR STATIONS (11 large units, including 2 Group Air Stations)
- (c) Location(s):
  - CGAS Borinquen, Puerto Rico
  - CGAS Miami, Florida
  - CGAS Clearwater, Florida
  - CGAS Elizabeth City, North Carolina
  - CG GRU/AS Atlantic City, New Jersey
  - CGAS Cape Cod, Massachusetts
  - CGAS Traverse City, Michigan
  - CG GRU/AS Corpus Christi, Texas
  - CGAS Barbers Point, Hawaii
  - CGAS Sacramento, California
  - CGAS Kodiak, Alaska
- (d) Business Line(s): Search and Rescue, Maritime Law Enforcement, Marine Environmental Protection



Air Station Miami Hangar

## MISSION(S)

Provide mission capable aircraft and aircrews to CG and other government agencies in support of search and rescue, maritime law enforcement, marine environmental protection, logistics, military readiness, and the enforcement of laws and treaties of the United States.

Performance Goals: Typically, large and small air stations perform search and rescue and law enforcement missions, contributing to the CG's strategic goal of safety. Larger air stations such as Miami may receive heavy tasking across all CG missions and in support of all CG strategic goals. A typical air station may support the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S5			C1, C2, C3	N1

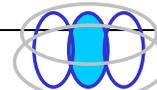
## PHYSICAL PLANT

- (a) Single Site Units
- (b) Total acreage: 1,582 ac; (range: 15.06 ac to 1,134.5 ac)
- (c) Total square footage: 4,108,726 gsf; (range: 49,674 gsf to 1,952,792 gsf) \*
- (d) Primary Build/Structure: Hangar, Admin Building, shop spaces

\* Square footage totals include square footage of all facilities at the air stations, and those facilities at GRU/Airstas generally associated with air station support.

## CAPABILITY

- (a) These units maintain a B-0 SAR readiness posture 365 days per year. Assigned aircrews save lives and property, they provide on-scene command and control and SAR case documentation. They provide logistics support – transportation of personnel and material. They fly maritime law enforcement and marine environmental



protection patrols to detect, classify, identify targets of interest to surface and other end-game assets and agencies; Public Information – education and awareness.

- (b) Gaps in ability to continue to meet readiness requirements in the future may occur with the increased need for additional aircraft to support congressional mandates to stand up Air Facilities. Significant programmed hour shortfalls exist in both rotary and fixed wing asset classes based on current aviation requirements articulated in G-OPL 5 Year Drug and LMR budgets.
- (c) Gaps between the unit's ability to deliver products and services to the Coast Guard and the public that need to be addressed in the next 2-5 years: (projected future demand): Many of our aviation facilities are inadequate and do not meet the CG's hangaring, fire protection and berthing requirements. This may impact a unit's ability to meet their SAR readiness requirements and to perform other critical missions. To meet the Commandant's counter drug and living marine resources performance goals, as reflected in aviation requirements articulated in G-OPL's 5 Year Budgets, acquisition of significant numbers of additional rotary and fixed wing assets is required. These requirements will be addressed via resource proposals submitted in the FY 02 budget build process.
- (d) Ongoing or planned initiatives relative to maintaining needed capability: The CG has planned projects for several aviation facilities to provide major rehabilitation which may include correction of life safety deficiencies, seismic upgrades, modernization, berthing facilities, etc.
- (e) PESL: N/A
- (f) CG policy requires that all aviation facilities be capable of hangaring all assigned rotary wing aircraft and 50% of fixed wing aircraft. Many of our current aviation facilities are inadequate and we are unable to fully comply with this policy. Additionally, many of these facilities are beyond their projected end of service life (25 years). These facilities require major rehabilitation at the 25 year mark to maintain them through 50 years.

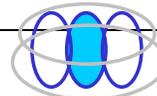
## FUNDING HISTORY

- (a) AC&I Appropriation
  - AC&I Facility Project Funds (average FY95-99): \$14.24M
  - AC&I Improvements & Upgrades (capital improvements >= \$200K): 1.14M
  - Plant Replacement Value (PRV) of all large air station facilities: \$545M
- (b) Average annual OE costs related to preserving capability:
  - Actual Costs:
    - AFC-43: \$ 6.4M (total AFC-43 for large airstas–FY98)
    - AFC-30: \$49.5M (total AFC-30 for large airstas–FY98)
- (c) AFC Funding History FY95-98 (total for large airstas)
 

<u>AFC-42</u>	<u>AFC-30</u>	<u>AFC-45</u>	<u>AC&amp;I</u>
FY95: 0	\$42.1M	\$752K	\$8.2M
FY96: \$5K	\$44.8M	0	\$1.5M
FY97: 0	\$42.2M	0	0
FY98: \$58K	\$49.5M	0	\$4M

## CURRENT PERSONNEL ALLOWANCE

Officer:	551
Warrant Officer:	47
Enlisted:	2,203
GS:	82
WG:	51
Contract:	0
TOTAL:	2,934



## ASSET

- (a) Type: Shore Operations
- (b) Name: CG AIR STATIONS (small)
- (c) Location(s): 13 units, including 4 group/air stations & 1 Activity)
  - CGAS Detroit
  - CGAS Washington
  - CGAS Houston
  - CGAS San Francisco
  - CGAS Los Angeles
  - CGAS Sitka
  - CGAS New Orleans
  - CGAS Savannah
  - CG GRU/AS Port Angeles
  - CG GRU/AS Astoria
  - CG GRU/AS North Bend
  - CG GRU/AS Humboldt Bay
  - Activities San Diego
- (d) Business Line(s): Search and Rescue, Maritime Law Enforcement, Marine Environmental Protection



## MISSION(S)

- (a) Mission Statement: To provide mission capable aircraft and aircrews to CG and other government agencies in support of search and rescue, maritime law enforcement, marine environmental protection, logistics, military readiness, and the enforcement of laws and treaties of the United States.
- (b) Performance Goals: Typically, large and small air stations perform search and rescue and law enforcement missions, contributing to the CG's strategic goal of safety. Larger air stations may receive heavy tasking across all CG missions and in support of all the CG's strategic goals. Typical air station may support the following performance goals.

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S5			C1, C2	N1

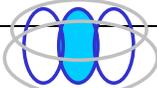
## PHYSICAL PLANT

- (a) Single Site Units
- (b) Total acreage: 111.10 ac; Range 3.9 ac to 57.85 ac
- (c) Total square footage: 629,256 gsf; Range 32,017 gsf to 200,898 gsf \*
- (d) Primary Build/Structure: Hangar, Admin Building, shop spaces

\*Total square footage includes the square footage of all facilities at the air stations, and those facilities at the GRU/Air Stations normally associated with air station support.

## CAPABILITY

- (b) These units maintain a B-0 SAR readiness posture 365 days per year. Assigned aircrews save lives and property, they provide on-scene command and control and SAR case documentation. Units provide logistics support - transportation of personnel and material, and fly maritime law enforcement and marine environmental protection



patrols to detect, classify, identify targets of interest to surface and other end-game assets and agencies; Public Information – education and awareness.

- (c) unit's current ability to deliver required products and/or services to the Coast Guard/public.: SAR – currently meet SAR readiness requirements. Gaps in ability to continue to meet readiness requirements in the future may occur with the increased need for additional aircraft to support congressional mandates. Significant programmed hour shortfalls exist in both rotary and fixed wing asset classes based on current aviation requirements articulated in G-OPL 5 Year Drug and LMR budgets.
- (d) gaps between unit's ability to deliver products and services to the Coast Guard and the public.: (projected future demand): Many of our aviation facilities are inadequate and do not meet the CG's hangaring, fire protection and berthing requirements. This may impact a unit's ability to meet their SAR readiness requirements or perform other critical missions. To meet the Commandant's counter drug and living marine resources performance goals, as reflected in aviation requirements articulated in G-OPL's 5 Year Budgets, acquisition of significant numbers of additional rotary and fixed wing assets is required. These requirements will be addressed via resource proposals submitted in the FY 02 budget build process.
- (e) Identify any ongoing or planned initiatives relative to maintaining needed capability, e.g., modernization, improvement or upgrades to business processes, equipment, systems or facilities. The CG has planned projects for several aviation facilities to provide major rehabilitation which may include correction of life safety deficiencies, seismic upgrades, modernization, berthing facilities, etc.
- (f) projected end of service life (PESL) based on standard service life projection: CG policy requires that all aviation facilities have the capacity to hangar all rotary wing aircraft and 50% of fixed wing aircraft. Many of our current aviation facilities are inadequate and we are unable to fully comply with this policy. Additionally, many of these facilities are beyond their projected end of service life (25 years). These facilities require major rehabilitation at the 25 year mark to maintain them through 50 years.

### FUNDING HISTORY

- (a) AC&I Appropriation (table format)
 

AC&I Facility Project Funds (average FY95-99):	\$0
AC&I Improvements & Upgrades FY95-99(capital improvements >= \$200K):	\$0
Plant Replacement Value for all small air stations:	\$229M
- (b) Average annual OE costs related to preserving capability:
 

Actual Costs:

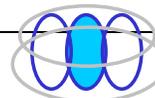
  - AFC-43: \$1.1M (total for all small airstas–FY98)
  - AFC-30: \$8.7M (total for all small airstas–FY98)

(c) AFC Funding History FY95-98 (total for small airstas):

	<u>AFC-42</u>	<u>AFC-30</u>	<u>AFC-45</u>	<u>AC&amp;I</u>
FY95:	0	\$9.2M	0	0
FY96:	0	\$8.3M	0	0
FY97:	\$2.3K	\$8.2M	0	0
FY98:	\$295K	\$8.7M	0	0

### CURRENT PERSONNEL ALLOWANCE

Officer:	176
Warrant Officer:	15
Enlisted:	591
GS:	17
WG:	10
Contract:	0
TOTAL:	809



## ASSET

- (a) Type: Shore Operations
- (b) Name: CG AIR FACILITIES (5)
- (c) Location(s): Air Facility Charleston; Air Facility Long Island; Air Facility Muskegon; Air Facility Newport; Air Facility Cordova, Air Facility Waukegon
- (d) Business Line(s): Congressional mandates established these air facilities to provide SAR response capability.
- (e) Photograph of Air Facility Charleston shown right.



## MISSION(S)

- (a) Mission Statement: Congressional mandate to provide SAR response capability.
- (b) CG Air Facilities support the following Coast Guard strategic and performance goals:

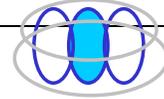
CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2				

## PHYSICAL PLANT

- (a) Single Site Units
- (b) Total acreage: 30.5 ac; (range: 2 ac to 18 ac)
- (c) Number of buildings: 5
- (d) Total square footage: 53,223 gsf
- (e) Primary Build/Structure: Hangar, Ready Crew Berthing

## CAPABILITY

- (a) Describe the products and/or services the unit currently provides to the Coast Guard or public:  
Search and Rescue aircraft – detection, life and property assistance, communications, on-scene command and control, & case documentation
- (b) Compare the unit’s current ability to deliver required products and/or services to the Coast Guard/public with current demand for the products or services. (current demand): Current units meet SAR readiness requirements.



## FUNDING HISTORY

### (a) AC&I Appropriation

AC&I Facility Project Funds (average from FY95 to FY99):	\$0	
AC&I Improvements & Upgrades by FY (capital improvements >= \$200K):		\$0

### (b) Average annual OE costs related to preserving capability:

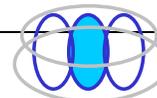
Budgeted Costs:

AFC-43: \$0

AFC-30: see G-CFS for this information

## CURRENT PERSONNEL ALLOWANCE

Officer:	38
Warrant Officer:	0
Enlisted:	104
GS:	0
WG:	0
Contract:	0
TOTAL:	142

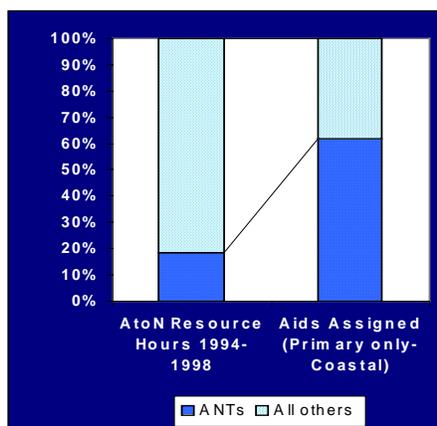


## ASSET

- (a) Type: Shore Operations
- (b) Name: AIDS TO NAVIGATION TEAM (ANT)
- (c) Location(s): Multiple (61)
- (d) Business Line(s): Mobility

## MISSION(S)

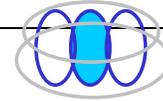
- (a) Mission Statement: Operate boats and provide personnel to place, service and remove aids to navigation in protected and semi-protected waterways. Unit Performance Goals: Contribute to maintenance of 99.7% overall aid availability within the short-range aids to navigation system. ANTs have primary responsibility for approximately 60% of all coastal aids to navigation, and consume less than 20% of all AtoN resource hours.
- (b) Description of how unit performance goals contribute to achievement of CG Strategic & Performance Goals: Maintain short-range aids to be available on an overall 99.7% of time throughout the entire system to assist the mariner in navigating through waterways, thus contributing to mobility.



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS			M1, M2		

## PHYSICAL PLANT

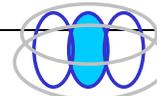
- (a) Multiple Site Unit
- (b) Total acreage: About 3,500 acres (including land under light structures, lighthouses, keeper's quarters, etc., as well as facilities where ANTs work out of, such as offices, boathouses, etc.)
- (c) Number of buildings: more than 400 (this includes all interior or near-interior space, including ANT buildings, UPH, family housing, boathouses, covered moorings, shops, signal buildings, etc., but doesn't include lighthouses. Some keepers quarters are included, others not.) An additional approximately 35 buildings are associated with lighthouses and light structures.
- (d) Total square footage: over 350,000, plus an additional approximately 35,000 square feet associated with lighthouses and light structures.
- (e) Primary Build/Structure
  - (1) ANT building (e.g., offices)
  - (2) Boathouses
  - (3) Shops (e.g., DC, MK)
  - (4) Housing (e.g., UPH, family)



- (f) Tenant Command(s): Various
- (g) Unique Equipment/Facility: Waterfront, including docks, piers, seawalls, boat ramps, boat lifts, tramways, etc. both at unit and at serviced facilities (e.g., lighthouses and light structures). There are many 'heritage' type buildings and structures included in the ANTs property.

## CAPABILITY

- (a) Describe the products and/or services the unit currently provides to the Coast Guard or public: The personnel assigned to these small shore units are specially trained to service short-range aids to navigation in the protected and semi-protected marine environment. The Aids to Navigation Teams perform scheduled maintenance and correct reported or discovered aid discrepancies.
- (b) Compare the unit's current ability to deliver required products and/or services to the Coast Guard/public with current demand for the products or services. (current demand): This is the subject of a current study—Project Kimball—to define and correct the gap between current/future demand and the capability (e.g., staffing) of the ANTs to meet that demand.
- (c) Identify any gaps between the unit's ability to deliver products and services to the Coast Guard and the public that need to be addressed in the next 2-5 years. (projected future demand): This is the subject of a current study—Project Kimball—to define and correct the gap between current/future demand and the capability (e.g., staffing) of the ANTs to meet that demand.
- (c) Identify any ongoing or planned initiatives relative to maintaining needed capability, e.g., modernization, improvement or upgrades to business processes, equipment, systems or facilities. Implementation of recommendations of the Short Range Aids to Navigation Mission Analysis and Surface Force Mix 2000 will continue through 2000, replacing 46 foot and 45 foot boats with new 49 foot boats. A new Aids to Navigation Information System is being deployed to provide improved aid information tracking. The Differential Global Positioning System continues to cover more parts of the ANTs coastal operating area, thus improving their positioning capability. There are continuous efforts made to improve aid equipment reliability and safety.
- (d) Indicate projected end of service life (PESL) based on standard service life projections; compare PESL to real-world experience. The PESL for a permanent short facility is 25 years; after a major rehab at that point, 15 more years can be expected. 313 ANT buildings are older than 25 years; 74 are more than 100 years old (a majority of those over 100 years old are 'heritage' buildings). These buildings include all interior or near-interior spaces.
- (e) Highlight any problem areas, technology issues, etc. ANTs are among the smallest and most remote units in the Coast Guard; as advanced technology is fielded, technical support becomes more difficult. As workload is intentionally shifted from larger units to ANTs, validation of staffing (Project Kimball) takes on more significance.
- (f) For the newest assets, discuss improvements over old assets in terms of costs and capability/capacity. Please see write ups for ANB, BU, BUSL, TANB for complete discussion of the various platforms used by the ANTs.



## FUNDING HISTORY

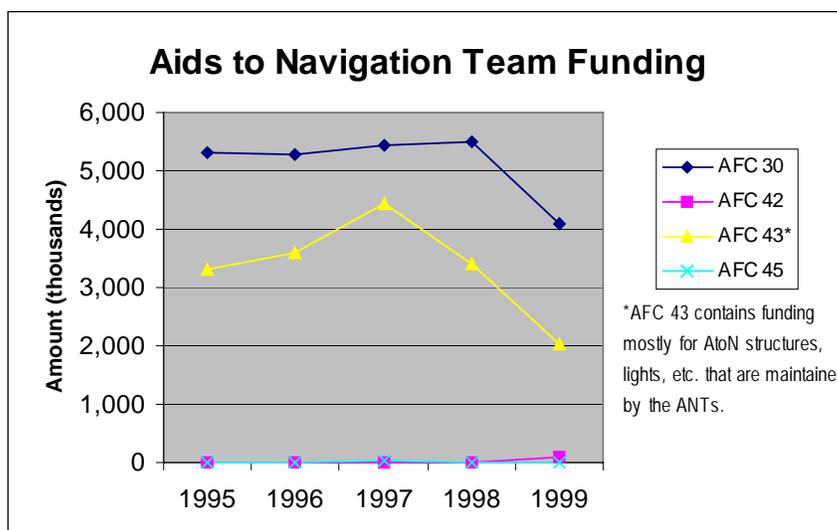
(a) Capitalization of all ANT buildings is over \$10 million; PRV is approximately \$620 million.

(b) Annual OE costs related to preserving capability:

Actual operating expenditures: (direct cost data obtained from Web EIS-Corporate Database and coded specifically for Aids To Navigation Team cost centers.)

	1995	1996	1997	1998	1999 (thru Q3)
AFC 30	5,303,637	5,296,035	5,441,864	5,498,277	3,281,795
AFC 42	2,888	14,007	0	1,374	78,790
AFC 43*	3,308,908	3,606,379	4,445,031	3,406,365	1,619,907
AFC 45	1,670	4,382	23,184	12,336	1,600

\*Includes funds spent by CEU on lights, structures, etc., that are maintained by ANTs—the great majority of these funds were expended for these purposes.

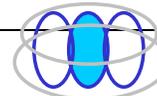


(1999 full estimate based on Q3 figures)

## CURRENT PERSONNEL ALLOWANCE

(total for all ANTs)

Officer:	
Warrant Officer:	
Enlisted:	618
GS:	
WG:	
Contract:	
TOTAL:	618



## ASSET

- (a) Type: Shore Operations
- (b) Name: COAST GUARD GROUP
- (c) Location(s): Multiple (39) (including 7 Group-Air Stations and 5 Group-Marine Safety Offices)
- (d) Business Line(s): Safety, Protection of Natural Resources, Mobility, Maritime Security, National Defense

## MISSION(S)

- (a) Mission Statement: Provide command, control, communications and support to stations, aids to navigation teams, patrol boats, and support to tenant commands.
- (b) Unit Performance Goals: Provide command, control, communications and support for units conducting operations in support of Strategic Goals outlined in the Coast Guard's Performance Plan as listed below.
- (c) Description of how unit performance goals contribute to achievement of CG Strategic & Performance Goals: Group areas of emphasis vary somewhat, depending on such items as local threats, environment (i.e., coastline, weather, water temperature), boating public, type of commercial waterways users, proximity to foreign nations, etc..

The Coast Guard Groups support the following Coast Guard strategic and performance goals:

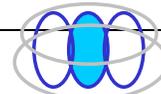
CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P1, P2, P3, P4, P5, P6	M1, M2, M3, M4	C1, C2, C3	N2, N3, N4

## PHYSICAL PLANT

- (a) Multiple Site Unit
- (b) Total acreage: 0- 38, total approximately 700 acres.
- (c) Number of buildings: over 650 interior or near-interior spaces
- (d) Total square footage: over 2.2 million (may include some secondary buildings due to shortcomings of data)
- (e) Primary Build/Structure
  - (1) Operations/Communications
  - (2) Shops, boathouses (e.g., MK, DC)
  - (3) Tenant buildings (Stations, WPBs, WMECs, etc.)
  - (4) Family Housing, UPH
- (f) Tenant Command(s): Various
- (g) Unique Equipment/Facility: Waterfront including piers, boat ramps, docks, seawalls, boat lifts; aircraft maintenance including washdown racks, hangars, ramps.

## CAPABILITY

- (a) Describe the products and/or services the unit currently provides to the Coast Guard or public: Provide command, control, communications and support for units operating boats/cutters or other major operational hardware and providing personnel to conduct operations in support of Coast Guard Strategic Goals.
- (b) Compare the unit's current ability to deliver required products and/or services to the Coast Guard/public with current demand for the products or services. (current demand): This is the subject of a current study—Project Kimball—to define and correct the gap between current/future demand and the capability (e.g., staffing) of the groups to meet that demand. There are clearly gaps/mismatches identified in certain areas, such as by the Morning Dew case.
- (c) Identify any gaps between the unit's ability to deliver products and services to the Coast Guard and the public that need to be addressed in the next 2-5 years. (projected future demand): This is the subject of a current study—Project



Kimball—to define and correct the gap between current/future demand and the capability of the groups to meet that demand.

(d) Identify any ongoing or planned initiatives relative to maintaining needed capability, e.g., modernization, improvement or upgrades to business processes, equipment, systems or facilities. Project Kimball.

(e) Indicate projected end of service life (PESL) based on standard service life projections; compare PESL to real-world experience. PESL for shore facilities is 25 years, with 15 more years expected after a major rehabilitation.

Approximately 270 buildings are beyond PESL (some were built before 1900); about 55 more are within 5 years of PESL.

(f) Highlight any problem areas, technology issues, etc. There are clearly gap identified in certain areas, such as by the Morning Dew case.

(g) For the newest assets, discuss improvements over old assets in terms of costs and capability/capacity. See information in MultiMission Stations, Aids to Navigation Teams, Patrol Boats, Harbor Tugs.

## FUNDING HISTORY

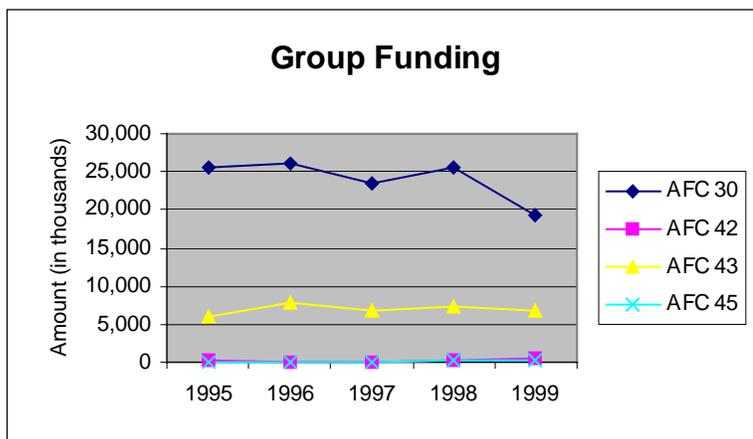
(a) AC&I Appropriation: Capitalization of groups is over \$124 million. Plant replacement value is several times higher due to the age of many buildings.

(b) Annual OE costs related to preserving capability:

Actual operating expenditures: (direct cost data obtained from Web EIS-Corporate Database and coded specifically for Group cost centers.) (in thousands)

	1995	1996	1997	1998	1999 (thru Q3)
AFC 30	25,613	26,061	23,429	25,435	15,461
AFC 42	368	69	53	355	334
AFC 43	5,931	7,936	6,658	7,245	5,402
AFC 45	48	8	24	185	217

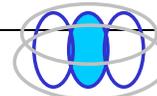
(1999 full estimate based on Q3 figures)



## CURRENT PERSONNEL ALLOWANCE

(total for all groups incl group billets at group/air stations, group/MSOs, and at activities)

Officer:	201
Warrant Officer:	136
Enlisted:	1669
GS & WG:	98
Contract:	
TOTAL:	2104



## ASSET

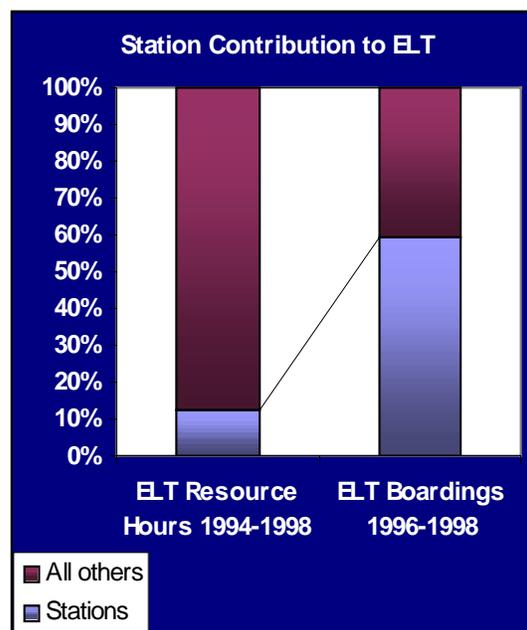
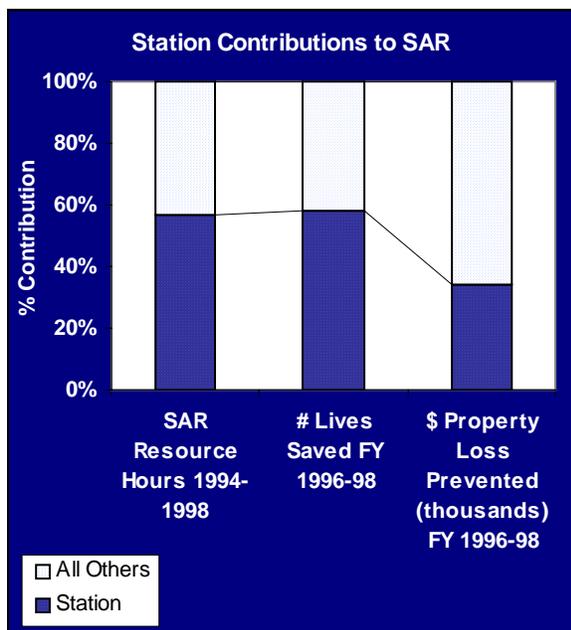
- (a) Type: Shore Operations
- (b) Name: MULTI-MISSION STATIONS
- (c) Location(s): Multiple (187)
- (d) Business Line(s): Safety, Protection of Natural Resources, Mobility, Maritime Security, National Defense

## MISSION(S)

- (a) Mission Statement: Operate boats and provide personnel to conduct operations in support of Strategic Goals as listed below.
- (b) Unit Performance Goals: Conduct operations in support of Strategic Goals outlined in the Coast Guard's Performance Plan as listed below.
- (c) Description of how unit performance goals contribute to achievement of CG Strategic & Performance Goals: Unit areas of emphasis vary somewhat, depending on such items as local threats, environment (i.e., coastline, weather, water temperature), boating public, type of commercial waterways users, proximity to foreign nations, etc.

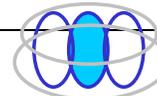
The Multi-mission Stations support the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P1, P2, P3, P4, P5, P6	M1, M2, M3	C1, C2, C3	N2, N3, N4



## PHYSICAL PLANT

- (a) Multiple Site Unit
- (b) Total acreage: 0 to 160 acres for each station, 1400 - 1600 total



- (c) Number of buildings: about 700 (this includes all interior or near-interior space, including station buildings, UPH, family housing, boathouses, covered moorings, shops, etc. due to shortcomings of data))
- (d) Total square footage: over 2.5 million
- (e) Primary Build/Structure
- (1) Station building (e.g., offices, communications/dispatch)
  - (2) Boathouses
  - (3) Shops (e.g., DC, MK)
  - (4) Housing (e.g., UPH, family)
  - (5) Tenant buildings (e.g., for collocated WMECs, WPBs, ANTs)
- (f) Tenant Command(s): Various
- (g) Unique Equipment/Facility: Waterfront, including docks, piers, seawalls, boat ramps, boat lifts, etc.

## CAPABILITY

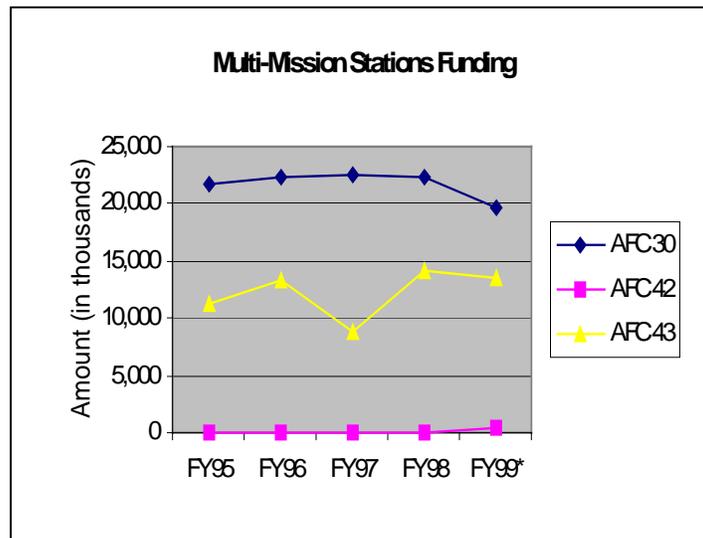
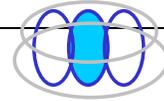
- (a) products and/or services the unit currently provides to the Coast Guard or public: Operate boats and provide personnel to conduct operations in support of Coast Guard Strategic Goals.
- (b) Compare unit's current ability to deliver required products and/or services to the Coast Guard/public with current demand for the products or services. (current demand): This is the subject of a current study—Project Kimball—to define and correct the gap between current/future demand and the capability (e.g., staffing and boats) of the multimission stations to meet that demand. There are clearly gaps/mismatches identified in certain areas, such as by the Morning Dew case.
- (c) Gaps between the unit's ability to deliver products and services to the Coast Guard and the public: (projected future demand): This is the subject of a current study—Project Kimball—to define and correct the gap between current/future demand and the capability of the multimission stations to meet that demand.
- (d) Ongoing or planned initiatives relative to maintaining needed capability: Project Kimball. Also, please see information on the MLBs, UTBs, UTLs—the boats used at the stations.
- (e) PESL for shore facilities is 25 years, with an additional 15 years after a major rehabilitation. Over 400 buildings are more than 25 years old, and 90 more main buildings within five years of PESL.
- (f) Closure of unneeded stations remains politically unsupported, resulting in funds diffusion across more real property than is necessary for mission performance.
- (g) For newest assets, discuss improvements over old assets in terms of costs and capability/capacity. Please see information on the MLBs, UTBs, UTLs—the boats used at the stations.

## FUNDING HISTORY

- (a) AC&I Appropriation: Capitalization of stations is over \$300 million. Plant replacement value is \$859 million.
- (b) Average annual OE costs related to preserving capability:

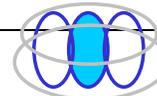
Budgeted Costs:					
FY	1999 (thru Q3)	1998	1997	1996	1995
AFC 30 O&M	15,693,448	22,434,479	22,556,638	22,380,828	21,678,127
AFC 42 TELECOM	271,599	18,810	21,706	12,069	24,463
AFC 43 CIVIL	10,772,438	14,169,662	8,758,535	13,222,814	11,336,022

(1999 full estimate based on Q3 figures)



**CURRENT PERSONNEL ALLOWANCE (total for all stations)**

Officer:	15
Warrant Officer:	30
Enlisted:	4029
GS:	
WG:	
Contract:	
<b>TOTAL:</b>	<b>4074</b>



## ASSET

Marine Inspection Office (MIO)

There are two MIOs in the Coast Guard and both are located outside the continental United States:

1. MIO Europe – Rotterdam, The Netherlands.
2. MIO Asia – Yokota, Japan. This unit is known as Far East Activities (FEACT)

## MISSION(S)

MIOs are independent units which perform Officer in Charge of Marine Inspection functions. MIOs inspect U.S. commercial vessels undergoing new construction and/or major repair work in foreign shipyards, and conduct routine periodic inspection of U.S. commercial vessels operating predominantly out of foreign ports. Due to their overseas location, MIOs also perform limited International Affairs functions, including the development of informal contacts with various foreign government agencies, and the provision of teaching assistance to the IMO's World Maritime University. Strategic goals supported are Safety, Mobility, and National Defense.

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S3, S4		M3	C1, C2, C3	N1, N2

## PHYSICAL PLANT

There are two MIO's, Europe and Far East and both are leased office spaces

## CAPABILITY

NA

## FUNDING HISTORY

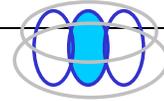
Annual OE costs related to preserving capability:

Budgeted Costs:

	FY99	FY98	FY97	FY96	FY95
AFC-08:			70,908		
AFC-42:	11,377			59	

## CURRENT PERSONNEL ALLOWANCE

Officer:	13
Warrant Officer:	6
Enlisted:	4
GS:	
WG:	
Contract:	
TOTAL:	23



## ASSET

Marine Inspection Detachment (MIDET)

The MIDET is located outside the continental US at PSA Sembawang Terminal, Singapore

## MISSION(S)

Incorporated under FEACTION/Asia.

The Marine Inspection Detachment support the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S3,4	P1,2,3			

## PHYSICAL PLANT

Leased office space:

## CAPABILITY

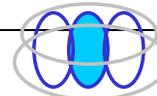
NA

## FUNDING HISTORY

N/A

## CURRENT PERSONNEL ALLOWANCE

Officer:	1
Warrant Officer:	
Enlisted:	
GS:	
WG:	
Contract:	
TOTAL:	1



## ASSET

Marine Safety Offices(MSO)

Marine Safety Offices are located in:

- (D1) Boston, Providence, Portland ME
- (D5) Hampton Roads, Wilmington
- (D7) Miami, Jacksonville, Tampa, Savannah,  
Charleston, San Juan
- (D8) New Orleans, Morgan City, Corpus Christi,  
Houston, Galveston, Mobile, Port  
Arthur, St. Louis, Huntington,  
Louisville, Memphis, Paducah,  
Pittsburgh
- (D9) Buffalo, Chicago, Cleveland, Detroit,  
Duluth, Milwaukee, Toledo
- (D11) San Diego, San Francisco
- (D13) Puget Sound, Portland OR
- (D14) Honolulu, Guam
- (D17) Juneau, Anchorage, Valdez

## MISSION(S)

The MSO is the basic Marine Safety shore facility and combines under one command the functions of the Captain of the Port, the Officer in Charge of Marine Inspection and the On-Scene Coordinator. MSOs respond to and investigate oil spills and hazardous material releases; ensure the safety and security of waterfront facilities and navigable waters; investigate marine casualties; inspect US commercial vessels for certification; perform port state control and examination of foreign vessels; and plan and prepare for emergencies, contingencies and marine related disasters. The MSO supports the following CG strategic and performance goals:

<b>CG STRATEGIC GOALS</b>	<b>SAFETY</b>	<b>PROTECTION OF NATURAL RESOURCES</b>	<b>MOBILITY</b>	<b>MARITIME SECURITY</b>	<b>NATIONAL DEFENSE</b>
<b>CG PERFORMANCE GOALS</b>	S3, S4	P1, P2, P3, P4	M1,2	C2	N1, N2

## PHYSICAL PLANT

Section under development

## CAPABILITY

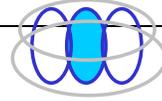
Use education, monitoring and enforcement to ensure US flag vessels and all vessels and regulated facilities in US ports and waters, comply with applicable domestic and international standards (safer crews...).

Control vessel and facility operations to correct or reduce significant safety, security or environmental threats.

Direct response activities to mitigate the effects of marine casualties, pollution and natural disasters.

Develop standards for the transport of hazardous materials onboard vessels and marine facilities.

Coordinate national protocols for preparedness planning, training and exercising for response activities.



## FUNDING HISTORY

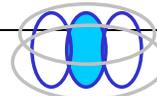
(b) Average annual OE costs related to preserving capability:

Budgeted Costs:

	FY99	FY98	FY97	FY96	FY95
AFC-42:			198	9,602	246

## CURRENT PERSONNEL ALLOWANCE

Officer:	487
Warrant Officer:	186
Enlisted:	727
GS:	151
WG:	
Contract:	
TOTAL:	1551



## ASSET

National Vessel Documentation Center (NVDC)  
The NVDC is located in Falling Waters, WV.

## MISSION(S)

The NVDC manages the national vessel identification system that provides evidence of nationality, ownership, and the purpose of qualifying recreational and commercial vehicles. The NVDC enrolls vessels into the documentation center data base, establishes a detailed file on each vessel and maintains these files throughout the life of the vessel. The NVDC supports the following strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S3, S4		M1, M2		

## PHYSICAL PLANT

The NVDC is a GSA leased facility of 18,862 sq ft..

## CAPABILITY

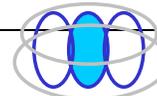
Section under development.

## FUNDING HISTORY

Section under development

## CURRENT PERSONNEL ALLOWANCE

Officer:	
Warrant Officer:	
Enlisted:	
GS:	98
WG:	
Contract:	
TOTAL:	98



## ASSET

National Maritime Center (NMC)

The National Maritime Center is located in Arlington, VA

## MISSION(S)

The NMC is the headquarters unit responsible for the management, coordination, and execution of marine safety activities and services. The CITAT, MSC, NVDC, and MSL are administratively controlled by the NMC and report to it for guidance. The NMC supports the following strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S3, S4		M1, M2		

## PHYSICAL PLANT

The NMC is GSA leased facility.

## CAPABILITY

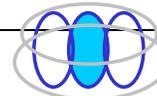
Section under development

## FUNDING HISTORY

Section under development

## CURRENT PERSONNEL ALLOWANCE

Officer:	6
Warrant Officer:	1
Enlisted:	
GS:	29
WG:	
Contract:	
TOTAL:	36



## ASSET

Marine Safety Detachment (MSD)

Marine Safety Detachments are located in:

- (D7) St. Thomas
- (D8) St. Paul, Cincinnati, Greenville, Nashville,  
Baton Rouge, Houma, Lake Charles
- (D9) Sturgeon Bay, Massena, Grand Haven
- (D11) Santa Barbara, Concord
- (D14) American Samoa, Saipan
- (D17) Kodiak, Kenai, Unalaska, Sitka, Ketchikan

## MISSION(S)

The MSD is a subordinate unit of the MSO. They perform the combined functions of the Captain of the Port, the Officer in Charge Marine Inspection and the On-Scene Coordinator where there is a need for these functions in a remote location. The MSD operates under the direction of the Commanding Officer of the parent unit and exercises COTP/OCMI/OSC powers in the portion of the MSO's zone where the MSD is located. The MSD supports the following strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S3, S4	P1, P2, P3, P4	M1, M2		N1, N2

## PHYSICAL PLANT

MSDs Helena, Nashville, Metarie, Gretna, Lake Charles, Houma, Baton Rouge, Sturgeon Bay, St. Paul, Ketchikan

Total square footage: 13,484 sq ft GSA lease

## CAPABILITY

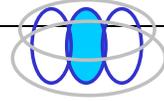
See MSO Capability.

## FUNDING HISTORY

Annual OE costs related to preserving capability:

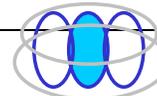
Budgeted Costs:

	FY99	FY98	FY97	FY96	FY95
AFC-43:				7,371	
AFC-30:	15,273	16,518	30,057	22,796	13,679



## CURRENT PERSONNEL ALLOWANCE

Officer:	26
Warrant Officer:	23
Enlisted:	68
GS:	2
WG:	
Contract:	
TOTAL:	119



## ASSET

Marine Safety Field Office (MSFO)

All MSFOs are located in the First Coast Guard District

MSFO Bucksport ME (MSO Portland (ME))

MSFO Portsmouth NH (MSO Portland (ME))

MSFO Cape Cod MA (MSO Providence)

MSFO New Bedford MA (MSO Providence)

MSFO West Bay (MSO Providence)

MSFO Coram NY (Group/MSO Long Island Sound)

## MISSION(S)

The MSFO is a subordinate unit of the MSO. It operates under the direction of the Commanding Officer of the parent MSO and exercises very limited Captain of the Port, Officer in Charge Marine Inspection, and/or On-Scene Coordinator powers in remote portions of the MSO's zone. The MSFOs are small and located in remote areas where the operational tempo and complexity is expected to be relatively limited. The MSFO supports the following Coast Guard strategic and performance goals:

<b>CG STRATEGIC GOALS</b>	<b>SAFETY</b>	<b>PROTECTION OF NATURAL RESOURCES</b>	<b>MOBILITY</b>	<b>MARITIME SECURITY</b>	<b>NATIONAL DEFENSE</b>
<b>CG PERFORMANCE GOALS</b>	S3, S4	P1, P2, P3, P4	M3		N1, N2

## PHYSICAL PLANT

MSFOs are leased facilities.

## CAPABILITY

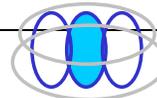
See MSO Capability.

## FUNDING HISTORY

Section under development

## CURRENT PERSONNEL ALLOWANCE

Officer:	7
Warrant Officer:	3
Enlisted:	14
GS:	0
WG:	0
Contract:	
<b>TOTAL:</b>	<b>24</b>



## ASSET

Marine Safety Satellite Office (MSSO)  
The MSSO is located in Port Lavaca, TX

## MISSION(S)

The MSSO is a subordinate unit of the MSO. It operates under the direction of the Commanding Officer of the parent MSO and exercises very limited Captain of the Port, Officer in Charge Marine Inspection, and/or On-Scene Coordinator powers in remote portions of the MSO's zone. The MSSO is small and located in remote areas where the operational tempo and complexity is expected to be relatively limited. The MSSO supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S3, S4	P1, P2, P3, P4			N1, N2

## PHYSICAL PLANT

The MSU is a GSA leased facility.

## CAPABILITY

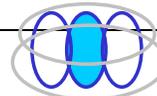
See MSO Capability.

## FUNDING HISTORY

Section under development

## CURRENT PERSONNEL ALLOWANCE

Officer:	0
Warrant Officer:	1
Enlisted:	1
GS:	0
WG:	0
Contract:	
TOTAL:	2



## ASSET

Marine Safety Unit (MSU)  
The MSU is located in Galveston, Texas.

## MISSION(S)

The MSU is a subordinate unit of the MSO. It performs the combined functions of the Captain of the Port, the Officer in Charge Marine Inspection and the On-Scene Coordinator. The MSU is led by a Commanding Officer and is established in remote locations where the mix of anticipated operations is extremely complex. The MSU is under the direction of the parent MSO and exercises COTP/OCMI/OSC powers in the portion of that unit's zone in which the MSU is located. The MSU supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S3, S4	P1, P2, P3, P4			N1, N2

## PHYSICAL PLANT

The MSU is a leased facility.

## CAPABILITY

See MSO Capability.

## FUNDING HISTORY

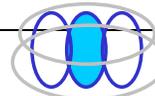
Annual OE costs related to preserving capability:

Budgeted Costs:

	FY99	FY98	FY97	FY96	FY95
AFC-08:	90,873				
AFC-30:	96,765				

## CURRENT PERSONNEL ALLOWANCE

Officer:	14
Warrant Officer:	4
Enlisted:	29
GS:	3
WG:	0
Contract:	
TOTAL:	50



## ASSET

Strike Team (3)

1. Atlantic Strike Team; Fort Dix, NJ
2. Gulf Strike Team; Mobile, AL
3. Pacific Strike Team; Novato, CA

## MISSION(S)

The Strike Teams provide a cadre of highly trained, rapidly deployable personnel and equipment to support response to oil spills or hazardous material releases by Federal on Scene Coordinators from the Coast Guard or the Environmental Protection Agency (EPA). They also train OSC response management personnel, and monitor or direct cleanup efforts on behalf of the OSC. The Strike Teams support the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S3, S4	P1, P2, P3, P4			N1, N2

## PHYSICAL PLANT

The Strike Teams are located in leased facilities.

## CAPABILITY

NA

## FUNDING HISTORY

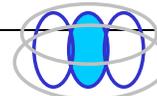
Average annual OE costs related to preserving capability:

Budgeted Costs:

	FY99	FY98	FY97	FY96	FY95
AFC-42:		21,298			
AFC-43:		69,083			

## CURRENT PERSONNEL ALLOWANCE

Officer:	12
Warrant Officer:	9
Enlisted:	87
GS:	0
WG:	0
Contract:	
TOTAL:	108



## ASSET

Port Security Unit (PSU)  
each equipped with six 25' Transportable Port Security Boats (TPSB)



## MISSION(S)

PSUs are deployable units organized for sustained operations, capable of deploying within 96 hours to establish port operations within 24 hours. PSUs are tasked with providing waterborne and limited land-based port security and force protection of shipping and critical port facilities at the end points of the U.S. Sea Lanes of Communications (SLOCs). To carry out this mission, each PSU has 6 heavily armed, fast and maneuverable TPSBs. A PSU organizational structure is designed to provide for command and control, waterborne security, shore base security and logistics support as one element within the Naval Coastal Warfare (NCW) organization.

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS			M1		N1, N2

## INVENTORY

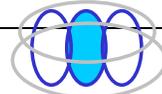
PSU 305	FT EUSTIS, VA	( commissioned in 1995)
PSU 307	ST. PETERSBURG, VA	1999
PSU 308	GULFPORT, MS	1998
PSU 309	PORT CLINTON, OH	1995
PSU 311	SAN PEDRO, CA	1995
PSU 313	TACOMA, WA	1998
PSU TRAINING DETACHMENT (TRADET)	CAMP LEJEUNE, NC	relocated in 1998

## CAPABILITY

- (a) The 1995 Memorandum of Agreement between the Secretaries of Defense and Transportation for Use of Coast Guard Resources in Support of the National Military Strategy desires the Coast Guard to keep ports and harbor areas free of hostile threats, terrorist actions and safety deficiencies that could delay critical logistics. Coast Guard Marine Safety Offices conduct these duties within the continental United States with local Coast Guard units. As part of the Homeland Defense initiatives, PSUs may be called upon to respond to a crisis to assist with protecting and securing vital seaports throughout the United States. The Coast Guard PSUs primary missions, in conjunction with other Department of Defense forces, are to conduct these port security operations overseas. Therefore, the Coast Guard must maintain a necessary high state of readiness to prepare and deploy all six active PSUs in direct support of the Coast Guard's commitment to providing forces to meet the CINCs validated contingency requirements.

### Physical Characteristics of each PSU: ( equipment recently purchased in 1998-99)

- Boats: Six (Boston Whaler) 25' TPSBs with 8' beam and 4' nav draft equipped with Two 175 HP OMC FICHT Outboards, radar, depth sounder machine guns (.50 cal and M60) that are capable of operating within a harbor in seas up to 4 feet.
- Vehicles: Two F-350 pickup trucks and one F-550 stake-bed truck with trailers, one 16 pax van.
- Diesel Generators: (DOD std Tactical Quiet) two 15 KW/60hz and two 5 KW/60 hz generators



- Containers: one portable ISU 90 armory container and ten ISU 90 air/sealift capable containers for gear and equipment shipment.
- Tents: three Model 6 and two Model 2 Deployable Rapid Assembly Shelter (DRASH) tents and 7 GP mediums for command center, medical/admin, galley and berthing purposes.
- Water: One 400 gal water Buffalo container.
- Food: Each PSU deploys with a 30 day supply of operating and support equipment including 30 days of MREs and TRAPAKs.
- Fuel, Potable water, advanced medical assistance, sanitation and shower facilities must be provided in the field by the supported commander.

**Operational characteristics**

- Crew: 117 deployable personnel (11officers/106 enlisted) out of 145 (140 RPAL and 5 PAL).
- Endurance:
  - Waterborne Security: Each PSU is capable of conducting continuous boat operations with 3 boats underway simultaneously and one boat in a ready response mode. These TPSBs are fully mission capable when operating within a harbor in less than 3 foot seas and 30 kts of wind. During high threat conditions, continuous operations with four boats can be conducted for one 24 hour period. ( 25' TPSB replaced the 22' PSU RAIDER boat in 1998/99, increasing overall sea-keeping capability and outfitting PSU boats with modern command/control equipment.)
  - Unit Security: As part of a combat service support unit that deploys within in a joint rear area harbor environment, each PSU has a 30 person detachment that provides continuous unit security by a 10 person squad equipped with machine guns and small arms.

- (b) PESL: 25' TPSBs is projected for replacement in 2007-09 timeframe.
- (c) With the strong potential for the port security mission to increase as part of the Homeland Defense initiatives, six PSUs will not be capable of handling both the Coast Guard's CONUS and OCONUS operational commitments of the port security mission to the CINCs. Therefore, it is recommended to commission at least two additional PSUs by 2003 -04 to handle the CONUS asymmetric warfare threat to our nations vital ports and waterways.
- (d) As the NCW community continues to reorganize, the Coast Guard's PSUs and the Navy's Inshore Boat Unit ( IBU), Mobile Insure Undersea Warfare Units ( MIUWU) and the Harbor Defense Command Units operational capabilities must become aligned to ensure the most flexible and compatible units deploy to carry out the mission of port security within critical ports worldwide.

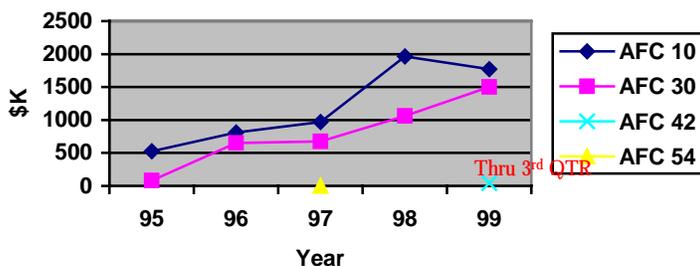
**FUNDING HISTORY**

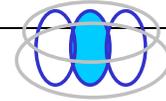
Actual operating expenditures: (direct cost data obtained from Web EIS-Corporate Database and coded specifically for PSU cost centers.)

	NVVV	NVVU	NVVT	NVVS	NVVR
=====^c` PMH Cj	VTTIPNQIPQ	NIMSOINQUITQ	STUIMNRIPQ	SQVIRQOKIT	UQINVORIPQ

NOTE: PSUs have no current or expected AC&I funding.

**Combined Funding for PSUs (\$K)**





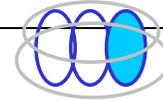
## CURRENT PERSONNEL ALLOWANCE

Port Security Unit	Active Duty	Reservist
Officer:	1	12
Warrant Officer:	0	0
Enlisted:	4	128
GS:		
WG:		
Contract:		
TOTAL:	5 AD	140 RPAL

Each of the six PSUs has 145 personnel as broken down above. Total number of personnel for all six PSUs is 870.

Port Security Unit Training Detachment	Active Duty	Reservist
Officer:	3	3
Warrant Officer:	0	1
Enlisted:	9	21
GS:		
WG:		
Contract:		
TOTAL:	12 AD	25 RPAL

The PSU Training Detachment (TRADET) has a total of 37 personnel separate from the six PSUs. The PSU TRADET is tasked with providing Advanced Boat tactics courses and PSU Basic Skills courses to the six PSUs. The TRADET also has recently developed a Mobile Training Team and is working to create Standardization Team. To assist with conducting Operational Readiness Evaluations.



## ASSET

Inland Construction (WLIC) Tender Class and Aid to Navigation (AtoN) vessels.

- 75-Foot (22.9 M);
- 100-Foot (30.5 M); and
- 160-Foot (48.8 M)

## MISSION(S)

The primary activities of these vessels is the construction, maintenance and removal of Aids to Navigation (AtoN) structures along the United States Intra-coastal Waterway System. These vessels support the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5	P3	M1, M2, M3		N1, N2

## INVENTORY

### 75-Foot Cutters

USCGC ANVIL	(WLIC 301)	Charleston, SC
USCGC HAMMER	(WLIC 302)	Mayport, FL
USCGC SLEDGE	(WLIC 303)	Baltimore, MD
USCGC MALLET	(WLIC 304)	Corpus Christi, TX
USCGC VISE	(WLIC 305)	St. Petersburg, FL
USCGC CLAMP	(WLIC 306)	Galveston, TX
USCGC HATCHET	(WLIC 309)	Galveston, TX
USCGC AXE	(WLIC 310)	Mobile, AL

### 100-Foot Cutters

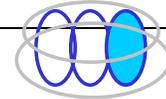
USCGC SMILAX	(WLIC 315)	Brunswick, GA
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### 160-Foot Cutters

USCGC PAMLICO	(WLIC 800)	New Orleans, LA
USCGC HUDSON	(WLIC 801)	Miami Beach, FL
USCGC KENNEBEC	(WLIC 802)	Portsmouth, VA
USCGC SAGINAW	(WLIC 803)	Mobile, AL

## CAPABILITY

- (a) The Construction Tender Class vessels are to perform various Aid to Navigation (AtoN) construction, maintenance, and removal missions through the use of barges ranging in length from 68-feet to 84-feet. The barges of these tenders are outfitted with construction cranes with the capacity of approximately 9-tons and a diesel powered pile-driving hammer used for building Aid to Navigation (AtoN) structures consisting of wood or steel pilings. In addition, these vessels have the capability of servicing floating Aids to Navigation (AtoN) within the weight limits of their limits of their construction crane. The vessels are outfitted with mooring spuds, which are piles dropped to the bottom of the water to stabilize the vessel in a fixed position.



<u>Physical Characteristics</u>	<u>75-Foot</u>	<u>100-Foot</u>	<u>160-Foot</u>
Length overall:	76-feet, 1-inch	100-feet	160-feet
Beam:			
Full Load Draft:	22-feet 5-inches	24-feet, 4-inches	300-feet
SHP:	630	675	1000
Full Load Displacement:	129 Tons	178 Tons	459 Tons
<u>Operational Characteristics</u>			
Crew:	13	16	15
Speed:	8.0 Knots	9.5 Knots	11 Knots
Cruising range:	1000 NM at 8.0 Knots	1241 NM/5.5 Kts	2200 NM at 6.5 Knots
Endurance: (days unreplenished)	6 Days	6 Days	7 Days
Maximum seas:	3-feet	3-feet	4-feet

(b) PESL: 2020 for the majority of the class; USCGC SMILAX will require replacement by 2010.

- 100-Foot WLICs Commissioned 1943 – Beyond Projected End of Service Life
- 75-Foot WLICs Commissioned between 1962-65 – Projected End of Service Life – 2005
- 160-Foot WLICs Commissioned 1976 – Projected End of Service Life – 2010
- Vessel reduction and realignment – SRAMA and Construction Tender Analysis

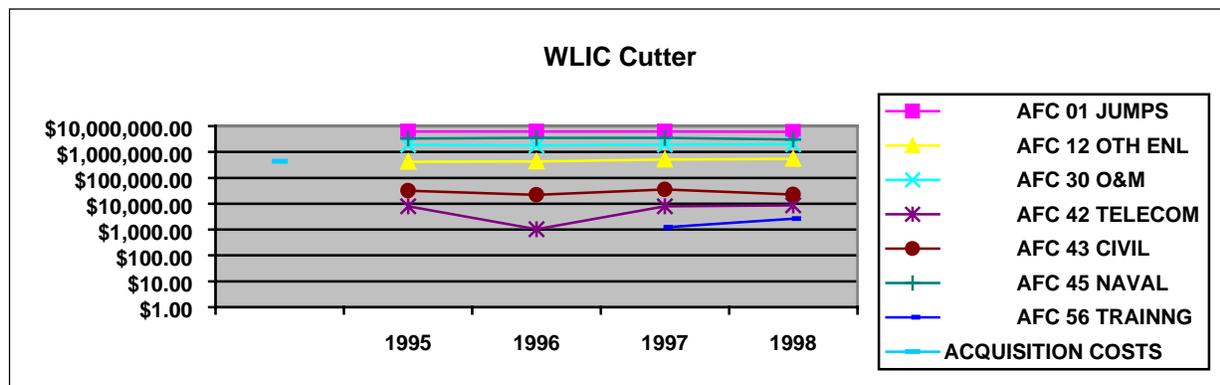
## FUNDING HISTORY

Acquisition Costs: \$430,000.00

Unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. Costs have been averaged due to cost differentials.

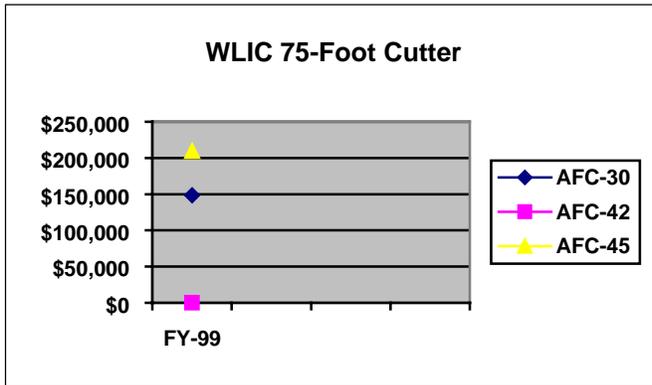
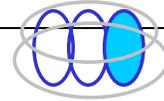
Actual operating expenditures: (direct cost data obtained from Web EIS-Corporate Database and coded specifically for WHEC 378' Class cost centers.)

	1995	1996	1997	1998
AFC 30 O&M	1,868,166.73	1,776,525.39	1,906,896.92	1,993,631.32
AFC 42 TELECOM	8,017.64	1,045.00	7,901.75	8,612.00
AFC 43 CIVIL	31,537.51	21,720.69	35,784.39	22,919.61
AFC 45 NAVAL	3,348,356.16	3,462,534.53	3,490,704.03	3,043,568.06



### WLIC 75-Foot Cutters

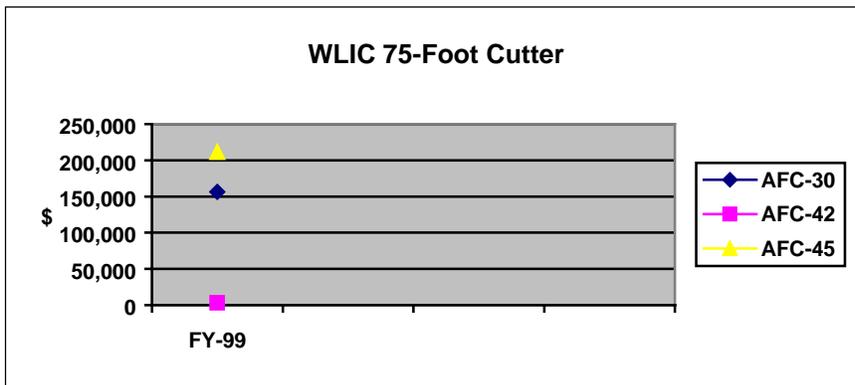
	<u>FY-99</u>
AFC-45:	\$209,695
AFC-42:	\$0
AFC-30:	\$148,491



Budgeted Costs

WLIC 100-Foot Cutters

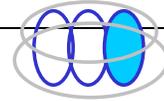
	<u>FY-99</u>
AFC-45:	\$211,318
AFC-42:	\$2,920
AFC-30:	\$156,572



Budgeted Costs

WLIC 160-Foot Cutters

	<u>FY-99</u>
AFC-45:	\$197,324
AFC-42:	\$12,524
AFC-30:	\$137,543



## CURRENT PERSONNEL ALLOWANCE

### WLIC 75-Foot Cutters (2)

Officer:	0
Warrant Officer:	1
Enlisted:	13
GS:	0
WG:	0
Contract:	0
TOTAL:	14

### WLIC 75-Foot Cutters (6)

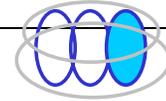
Officer:	0
Warrant Officer:	0
Enlisted:	13
GS:	0
WG:	0
Contract:	0
TOTAL:	13

### WLIC 100-Foot Cutters

Officer:	0
Warrant Officer:	1
Enlisted:	15
GS:	0
WG:	0
Contract:	0
TOTAL:	16

### WLIC 160-Foot Cutters

Officer:	0
Warrant Officer:	1
Enlisted:	14
GS:	0
WG:	0
Contract:	0
TOTAL:	15



## ASSET

Inland Buoy Tenders (WLI)

- 65-Foot (19.8M) and
- 100-Foot (30.5 M) .

## MISSION(S)

Inland Buoy Tenders service short range Aids to Navigation (AtoN) along coastal and inland waters. Servicing both floating and fixed aids to navigation, these ships keep our waterways properly marked. They also provide ice-breaking, and search and rescue (SAR) operations when needed. They support the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2		M1, M2		N1, N2

## INVENTORY

### 65-Foot Cutters

USCGC BLACKBERRY  
 USCGC CHOKEBERRY  
 USCGC BAYBERRY  
 USCGC ELDERBERRY

### Hull

(WLI 303)  
 (WLI 304)  
 (WLI 400)  
 (WLI 401)

### Location

Long Beach, NC  
 Crisfield, MD  
 Seattle, WA  
 Petersburg, AK

### 100-Foot Cutters

USCGC BLUEBELL  
 USCGC BUCKTHORN

(WLI 313)  
 (WLI 642)

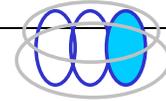
Portland, OR  
 Sault Sainte Marie, MI

## CAPABILITY

Range: 1200-1500 miles  
 Max Speed: 9-10 knots

## CAPABILITY

- One 100-Foot WLI Cutter commissioned in 1943 – is now beyond projected end of service life; other 100-Foot WLI Cutter commissioned in 1963 – projected end of service life – 2005.
- Two 65-Foot WLI Cutters commissioned 1946 – are now beyond projected end of service life, as are two other 65-Foot WLI Cutters commissioned in 1954.
- No major rehabs planned.
- Vessel reduction and realignment per SRAMA.
- Conversion of USCGC BUCKTHORN to a WLIC.



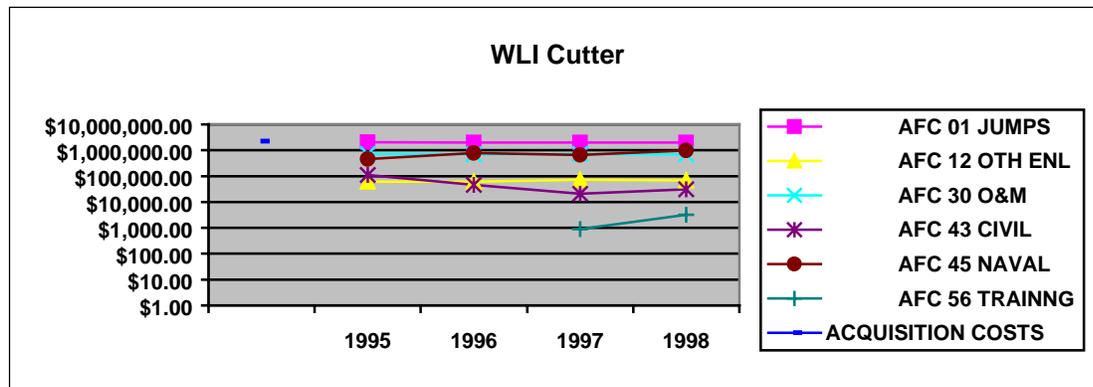
## FUNDING HISTORY

Acquisition Costs: 2,210,000

Unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. Costs have been averaged due to cost differentials.

Actual operating expenditures: (direct cost data obtained from Web EIS-Corporate Database and coded specifically for WLI Class cost centers.)

	1995	1996	1997	1998
AFC 30 O&M	708,181.52	690,521.80	726,561.64	689,516.07
AFC 43 CIVIL	111,656.65	46,454.25	20,572.16	30,948.86
AFC 45 NAVAL	451,597.18	783,718.43	667,236.83	971,916.50



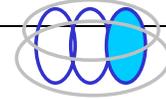
## CURRENT PERSONNEL ALLOWANCE

### 65-Foot WLI Cutters

Officer:	0
Warrant Officer:	0
Enlisted:	8-to15
GS:	0
WG:	0
Contract:	0
TOTAL:	8-to-15

### 100-Foot WLI Cutters

Officer:	1
Warrant Officer:	14
Enlisted:	0
GS:	0
WG:	0
Contract:	0
TOTAL:	15



## ASSET

River Tender Class Aids to Navigation (AtoN) Vessels (WLR)

- 65-Foot (19.8M)
- 75-Foot (22.9M)

## MISSION(S)

The River Tender Class is designed to service short range aids to navigation in the Western Rivers of the United States. These tenders push barges equipped with cranes and other equipment to set, relocate, and discontinue buoys to mark the ever changing river channels, and establish and maintain lighted and unlighted shore aids. These assets also provide search and rescue and pollution response operations when needed. They support the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4		M1, M2, M3		N1, N2

## INVENTORY

The Coast Guard operates a total of 18 vessels of this class in the eighth district. The vessels are located as follows:

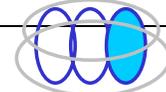
	<u>75-Foot</u>	<u>65-Foot</u>
USCG-Group Upper Mississippi River	3	2
USCG-Group Lower Mississippi River	6	0
USCG-Group Ohio Valley	2	4
USCG-Group Mobile	1	0
Total:	12	6

## CAPABILITY

- (a) The fleet of WLRs consist of 65-Foot and 75-Foot River Towboats working in combination with barges of 90/100/130 feet in length. No significant changes are expected in the foreseeable future in regards to the operations requirements for these vessels.

<u>Physical Characteristics</u>	<u>65-Foot (6)</u>	<u>75-Foot (10)</u>	<u>75-Foot (2)</u>
Length overall:	65'8"	75'0"	75'0"
Beam:	21'	22'	24'
Full Load Draft:	5'	5'2"	4'8"
SHP:	750	750	1000
Full Load Displacement:	145 Tons	141 Tons	150 Tons
<u>Operational Characteristics</u>			
Crew:	13	13	13
Speed:	11 Knots	10 Knots	12 Knots
Cruising range: (distance/speed)	10,000/8.0 Knots	9,400/8.0 Knots	8,000/8.0 Knots
Endurance: (days unreplenished)	10 days	10 days	10 days
Maximum seas:	4 Feet	4 Feet	4Feet

- (b) 6-65' and 6-75' WLRs commissioned between 1960 and 1966; projected end of service life 2005  
 4-75' WLRs commissioned in 1969 and 1970; projected end of service life 2010.  
 2-75' WLRs commissioned in 1990; projected end of service life 2020.



- (c) All WLRs have received upgraded Ship Service Generator packages. Architecture and Evaluation project in progress to investigate main diesel engine replacement for all 65' and 75' WLR built 1970 and earlier.

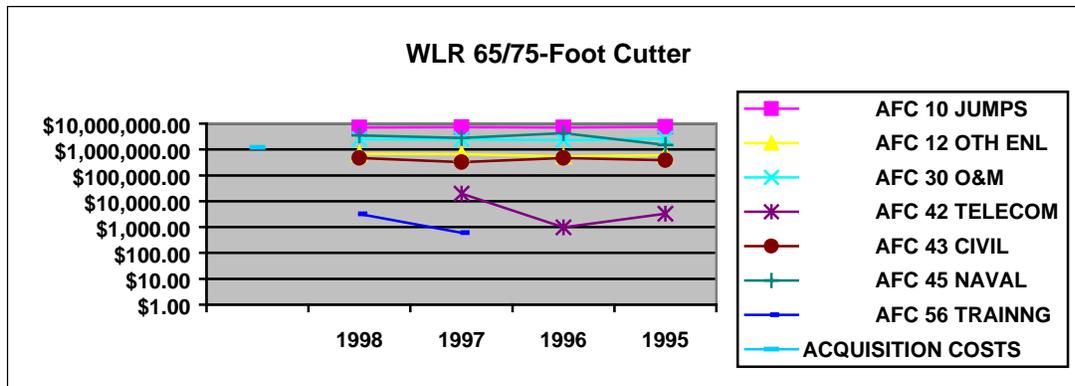
## FUNDING HISTORY

Acquisition Costs: 1,184,636

Unit cost (found in the ORACLE fixed asset module maintained by FINCEN). This includes significant vessel upgrades (FRAM, NMA, SLEP, etc.), electronics purchases and project management. Costs have been averaged due to cost differentials.

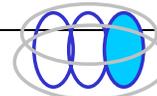
Actual operating expenditures: (direct cost data obtained from Web EIS-Corporate Database and coded specifically for WLR Class cost centers.)

	1995	1996	1997	1998
AFC 30 O&M	2,659,186.52	2,272,266.77	2,527,991.69	2,510,559.34
AFC 42 TELECOM	3,264.54	964.35	19,698.99	
AFC 43 CIVIL	388,038.55	463,784.69	323,991.11	471,494.78
AFC 45 NAVAL	1,511,550.50	4,246,724.37	2,763,775.75	3,536,968.25



## CURRENT PERSONNEL ALLOWANCE

Officer:	0
Warrant Officer:	0
Enlisted:	13
GS:	0
WG:	0
Contract:	0
TOTAL:	13



## ASSET

Vessel Traffic Service (VTS)

VTSs are located in:

- (D8) VTS Houston-Galveston
- (D11) San Francisco
- (D13) VTS Puget Sound
- (D17) VTS Prince William Sound

## MISSION(S)

VTSs provide voluntary or mandatory vessel traffic control within established marine channels and traffic separation schemes. Focused primarily on the more congested waterways of the near coastal zone. VTSs ensure that navigable waters on the U.S are safe and accessible to all forms of vessel traffic and that the use of the waterways is balanced between commercial and recreational customers. The VTSs support the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2	P1, P2, P3, P4	M1		

## PHYSICAL PLANT

The VTSs are leased facilities.

## CAPABILITY

Facilitate safe transit of waterways. Enhance environmental protection.

## FUNDING HISTORY

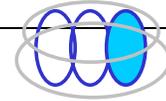
Annual OE costs related to preserving capability:

Budgeted Costs:

	FY99	FY98	FY97	FY96	FY95
AFC-42:					7,113
AFC-43:	26,994	27,050	5,741	61,965	73,172

## CURRENT PERSONNEL ALLOWANCE

Officer:	11
Warrant Officer:	2
Enlisted:	24
GS:	7
WG:	
Contract:	
TOTAL:	44



**ASSET**

- (a) Type: Operational
- (b) Name: Aids to Navigation
- (c) Location(s): Nationwide



**MISSION(S)**

- (a) Efficient and effective aids to navigation maximize safe navigation, minimize environmental impact, promote maritime commerce, support national defense objectives, and facilitate recreational access to the water.
- (b) The Coast Guard maintains 50,000 federal aids to navigation (including lighted and unlighted buoys, ranges, historic lighthouses, fog signals, and day beacons) and manages another 50,000 private aids.



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S3, S4, S5	P1, P3	M1, M2		N1, N2

**REMAINDER OF PAGE UNDER DEVELOPMENT.**



## ASSET

VC-4A Gulfstream I: Twin engine turboprop logistics and Long Range Command and Control (LRCC) Aircraft.

## MISSION(S)

The G-1 aircraft is primarily a logistics aircraft supporting Seventh Coast Guard District operations, transporting personnel, equipment, and repair parts to Caribbean locations. The G-1 also provides primary and backup official duty transportation for the Commandant and Area Commanders. The aircraft has been used in the past for over water reconnaissance patrols, but problems with corrosion have dictated a more restrictive use of this asset. The G-1 supports the following Coast Guard strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS				C1, C2	N1

## INVENTORY

Opa Locka, FL (Air Station Miami) 1

## CAPABILITY

- (a) General. The G-1 is programmed to fly 700 flight hours per year. The maximum weight of cargo and personnel varies. The aircraft can hold up to 15 passengers with small bags. Passenger capacity varies based on the amount of cargo required. It also provides the Commandant and Area Commanders with official duty transportation, and the working environment and communication capabilities to complete tasks enroute.

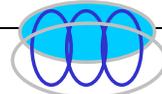
### Physical Characteristics:

Length: 63'9"  
 Wingspan: 78'4"  
 Height: 23'4"  
 Weight: 36,000 MGTOW

### Operational Characteristics:

Crew: (3) minimum; Pilot, Co-Pilot, Flight Mechanic (4) standard; Pilot, Co-Pilot, Flight Mechanic, Avionicsman  
 Speed: 250 KTAS  
 Cruising range: ≈ 1500 miles w/10,000 lb fuel load – leaves ≈ 1000 lb useful cargo load capacity.  
 Cargo capacity: ≈ 2500 lbs w/MGTOW of 36K Based on Zero Fuel GW; up to ≈ 5000 lbs w/reduced takeoff weight of 35K.

- (b) PESL: Dependent on future economic factors. The G-1 aircraft is 35 years old and is actually past its projected end of service life. However, based on comparable commercial G-1 aircraft, the VC-4 may be able to continue service until 2009.



- (c) Discussions and analysis of whether to keep or replace this aircraft are in progress. The aircraft will need its engines overhauled in FY01 and FY02, and will require a 20,000 landing inspection in FY04 that will examine the condition of the airframe.

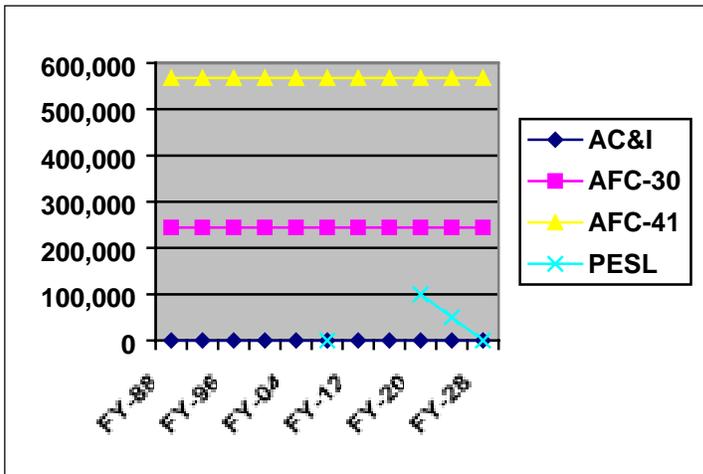
## FUNDING HISTORY

- (a) Date and cost of acquisition: 11/02/62; 1.18 Million
  - (b) History of major maintenance or upgrade investments, average annual O&M costs related to preserving capability:
    - FY92: 945K
    - FY93: 228K Scheduled Depot Level Maintenance (SDLM)
    - FY94: 262K
    - FY95: 307K
    - FY96: 376K
    - FY97: 330K
    - FY98: 825K
    - FY99: 825K
- Budgeted Costs:
- Personnel: \$1.0M
  - AFC-41: \$0.4M (baseline from AR&SC)
  - AFC-30: \$0.25M
- Personnel required to maintain: 10

Upgrades/Improvements: None scheduled at this time.

- (c) Graph showing funding/investment history of the unit(s) and average OE costs related to maintaining capability over the service life of the asset. Plot from pre-acquisition to today, indicate PESL point.

**VC-4A Costs (\$000)**





## ASSET

VC-20A, Gulfstream III (G-III): Twin engine turbo fan Long Range Command and Control (LRCC) Aircraft

## MISSION(S)

The G-III is the only dedicated command and control support aircraft in the Coast Guard inventory. It provides the Commandant and Area Commanders (and periodically Department of Transportation and Congressional personnel) with official duty transportation, and the working environment and communication capabilities to conduct work while enroute. The G-III supports the following Coast Guard strategic and performance goals:



CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS					N1

## INVENTORY

Washington, DC 1

## CAPABILITY

- (a) General. The G-III is programmed to fly 500 flight hours per year. It is certified for flight under all weather conditions, with the exception of severe air turbulence and severe icing conditions. The aircraft is equipped with autopilot and autothrottle systems that can be fully coupled into the aircraft's flight guidance and navigation systems, allowing hands free operation to reduce fatigue. The aircraft is equipped with communication capabilities and a working environment that facilitate conduct of work enroute. The G-III can seat 12-15 passengers.

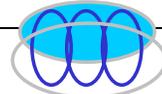
### Physical Characteristics:

Length: 74' 4"  
 Wingspan: 77' 10"  
 Height: 24' 6"  
 Weight: 70,200 lbs

### Operational Characteristics:

Crew: 2 pilots & 1 Flight mechanic  
 Speed: 450  
 Cruising range: 3500  
 Cargo capacity: 12 passengers

- (b) Communications. The G-III is equipped with 2 dual VHF-AM/FM radios, Airphone, secure fax, MILSATCOM, cellular phone, UHF radio, and 2 HF radios.
- (c) Sensors. The G-III is equipped with a weather avoidance radar and the traffic conflict avoidance system (TCAS).



- (d) Navigation. The G-III is equipped with dual Honeywell laser navigation units. Weather displays cannot be overlaid onto the flight director.
- (e) PESL: To be determined by future economic factors. The aircraft should remain supportable until approximately 2009.
- (f) Pending/Future upgrades. The G-III has an upgrade to the Flight Management System planned for late CY99 to replace components which are based on decommissioned navigation aids. The aircraft will receive a new navigation computer with an integrated GPS and control display units. Additionally, the VHF-AM radios will be replaced to meet the requirements of the international effort for reduced channel spacing to facilitate direct flight routing for all aircraft.
- (g) Possible future upgrade. It has not yet been determined whether the G-III will be required by the FAA to comply with Stage III noise limitations. International deadlines for compliance have been extended several times, but ultimately they will be enforced, which will impact operations in Europe. If stage III compliance is required, hush kits will need to be installed on the engines. Although these hush kits are not yet available for purchase, they are estimated at approximately \$1M for each engine.

## FUNDING HISTORY

- (a) Date and cost of acquisition: Acquired thru excess property from the Air Force at no cost.
- (b) History of major maintenance or upgrade investments, average annual O&M costs related to preserving capability:

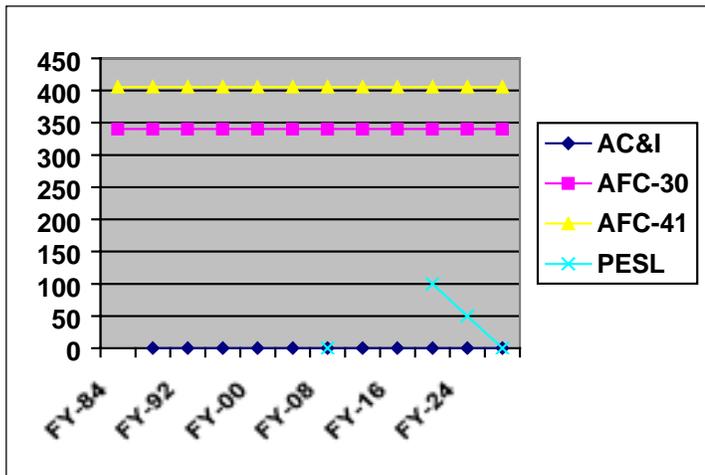
Budgeted Costs:	\$1.7M
Personnel:	\$1.1M
AFC-41:	\$0.4M
AFC-30:	\$0.3M

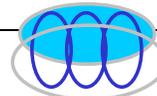
Personnel required to maintain and fly: 4 pilots and 10 crewman.

Upgrades/Improvements:

FY95-TCAS	\$125K
FY 99 Radio System Upgrade	\$0.3M
FY 99 Flight Management System Upgrade	\$0.8M

**G-III Funding (\$000)**





## ASSET

- (a) Type: Headquarters
- (b) Name: U.S. Coast Guard Headquarters
- (c) Location(s): Washington, D.C.
- (d) Business Line(s): policy administration and formulation, strategic planning, resource allocation.

## MISSION(S)

The mission of Coast Guard Headquarters is to administer the Service in an economical and efficient manner, to advise and assist the Secretary of Transportation in matters pertinent to the Coast Guard and its functions; and to maintain liaison with public and private agencies concerned with Coast Guard functions and operations.

## PHYSICAL PLANT

The Headquarters building is located in leased office space at 2100 Second Street, SW, Washington, DC. Other co-located tenant commands are the Headquarters Support Command, the Coast Guard Personnel Command and the US Interdiction Coordinator. The Coast Guard occupies 453,860 square feet of office space in the building.

## CAPABILITY

The Commandant plans, supervises, and coordinates the overall activities of the Coast Guard to enable the organization to execute its public policy mandates.. Policy formulation, legislation, and administration of the Coast Guard are conducted by Commandant staff. He is aided by the Vice Commandant and assisted by a Chief of Staff and Assistant Commandants leading staff elements such as Operations, Marine Safety and Environmental Protection, Systems, Human Resources, Acquisition, Legal and Civil Rights.

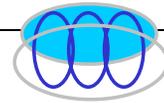
## FUNDING HISTORY

Section under development.

## CURRENT PERSONNEL ALLOWANCE

Section under development.

Officer:	
Warrant Officer:	
Enlisted:	
GS:	
WG:	
Contract:	
TOTAL:	



## ASSET

- (a) Type: Operations
- (b) Name: Area Offices
- (c) Location(s): Atlantic Area Portsmouth, Virginia (LANTAREA) and Pacific Area Alameda, California (PACAREA)
- (d) Business Line(s): Plan, coordinate, and control operations which involve more than one district.

## MISSION(S)

Section under development

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS					

## PHYSICAL PLANT

Section under development

## CAPABILITY

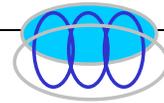
The nine Coast Guard Districts, and two Maintenance and Logistics Commands, report to two Area Commands—Atlantic and Pacific. The area commanders control the operations of designated area units that include major cutters, aircraft, and communication stations. The area commanders, assisted by their staffs, have special responsibilities relating to readiness and mobilization planning, search and rescue and law enforcement operations, and oceanographic and ice breaking functions.

## FUNDING HISTORY

Section under development

## CURRENT PERSONNEL ALLOWANCE

Section under development



## ASSET

CG District Offices

Location(s):

- 1<sup>st</sup> District Boston, Massachusetts;
- 5<sup>th</sup> District Portsmouth, Virginia;
- 7<sup>th</sup> District Miami, Florida;
- 8<sup>th</sup> District New Orleans, Louisiana;
- 9<sup>th</sup> District Cleveland, Ohio;
- 11<sup>th</sup> District Alameda, California;
- 13<sup>th</sup> District Seattle, Washington;
- 14<sup>th</sup> District Honolulu, Hawaii; and
- 17<sup>th</sup> District Juneau, Alaska

## MISSION(S)

Section under development

## PHYSICAL PLANT

Section under development

## CAPABILITY

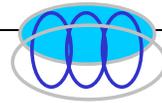
The nine Coast Guard districts are each under the command of a district commander responsible for the administration of their district, and the efficient, safe, and economical performance of Coast Guard duties within their districts. The district office divisions include Boating Safety, Operations, Marine Safety, Readiness and Reserve, and Administration. Each district exercises operational and administrative control of shore units and cutters 180' and smaller. Each of these units is headed by a commanding officer or officer-in-charge and is provided with the personnel and material necessary to perform specific operational missions. To illustrate the scope of operations at the district level, the 1<sup>st</sup> District in Boston oversees the operations of 30 cutters, 11 aircraft and more than 200 small boats to ensure the safety of more than a million recreational boats and commercial vessels that sail the North Atlantic coast.

## FUNDING HISTORY

Section under development

## CURRENT PERSONNEL ALLOWANCE

Section under development



## ASSET

Communications Stations

Location(s):

- Boston, MA
- Honolulu, HI
- Kodiak, AK
- Miami, FL
- New Orleans, LA

## MISSION(S)

Section under development.

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS					

## PHYSICAL PLANT

Section under development.

## CAPABILITY

Section under development.

## FUNDING HISTORY

Section under development.

## CURRENT PERSONNEL ALLOWANCE

Section under development.



## ASSET

Section Offices

1. Greater Antilles Section (GANTSEC)  
San Juan, PR
2. Marianas (MARSEC)  
Guam

## MISSION(S)

The mission of the Coast Guard Section Offices is to provide command, control, communications and support for units conducting operations in support of Strategic Goals outlined in the Coast Guard's Performance Plan. (section under development)

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS					

## PHYSICAL PLANT

Section under development

## CAPABILITY

The Section Offices provide support to subordinate and tenant commands in the form of command, control and communications and act as PERSRU for geographically assigned personnel.

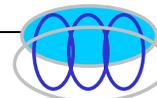
## FUNDING HISTORY

Actual operating expenditures: (direct cost data obtained from Web EIS-Corporate Database and coded specifically for Section cost centers.)

	1995	1996	1997	1998	1999 (thru Q3)
AFC 30	1,212,964	1,566,042	1,045,110	2,362,680	2,049,836
AFC 42	123,430	125,724	8,795	15,179	1,734
AFC 43	153,389	104,768	236,806	344,645	160,648

## CURRENT PERSONNEL ALLOWANCE

Officer:	6
Warrant Officer:	3
Enlisted:	37
GS:	266
WG:	0
Contract:	54
TOTAL:	366



## ASSET

National Distress System (NDS)

## MISSION(S)

The National Distress System (NDS) is a communications system that provides VHF-FM coverage in coastal areas and navigable waterways where commercial or recreational vessel traffic exists. It was built to provide the USCG with a means to monitor the international VHF-FM distress frequency; coordinate search and rescue response operations; and communicate with commercial and recreational vessels. It also provides C2 for USCG units performing Maritime Safety, Maritime Law Enforcement, National Security and Marine Environmental Protection missions.

Strategic and Performance Goals supported:

<b>CG STRATEGIC GOALS</b>	<b>SAFETY</b>	<b>PROTECTION OF NATURAL RESOURCES</b>	<b>MOBILITY</b>	<b>MARITIME SECURITY</b>	<b>NATIONAL DEFENSE</b>
<b>CG PERFORMANCE GOALS</b>	S1	P1, P2, P3, P4	M1	C1, C2, C3	N1, N2

NDS consists of a network of approximately 300 VHF-FM analog transceivers with antenna high-sites which are remotely controlled by regional communication centers and selected stations to provide coverage extending out to approximately 20NM from shore in most areas. The system provides continuous monitoring of channel 16 (distress channel) and the CG working channels (22-23) to maintain contact with underway vessels for location identification and law enforcement.

## CAPABILITY

- a) Describe the system in broad general terms as to the functionality or utility of the system and the information or service it provides to the CG or public:

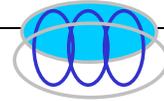
The National Distress and Response System Modernization Project (NDRSMP) will be replacing the current National Distress System (NDS). This is a replacement of the current communications system that will bring the Coast Guard into the 21<sup>st</sup> century by providing the services and expectations our customer's require. Currently the system does not provide the service or functionality our customers require.

- b) Compare the asset's current ability to deliver required information and/or services to the CG/public with current demand for the information or services. (current demand):

The NDS was originally put into service in the early 1970's and now suffers from technological obsolescence. Much of the existing equipment is no longer commercially available off-the-shelf, and is becoming increasingly difficult to support. The expected service life of electronic equipment installed during this period was 15 years. Equipment failures have necessitated the replacement of many system components that are no longer commercially available, resulting in a lack of standardization. Costly short-term fixes such as off-the-shelf purchases of equipment (e.g., new command modules, recording and playback equipment, direction finding receivers, cellular phones and Data Encryption Standard (DES) radios) and services are being applied in the field to marginally sustain the current system. The result is a collection of non-standard and difficult to maintain equipment.

As communications technology advances the Coast Guard communications should also advance in order to provide the best service possible to the customer. However, many of our customers would be surprised to find out how far behind we are in technology.

- c) Identify any gaps between the system's ability to deliver information and services to the CG and the public that need to be addressed in the next 2-5 years. (projected future demand):



The present system does not provide complete coverage of continental U.S. coastal areas, the Great Lakes, bays, inlets and river systems. Presently there are over 65 verified communication gaps and numerous localized coverage deficiencies identified by local operational commanders.

- d) Identify any ongoing or planned initiatives relative to maintaining needed capability, e.g., modernization, improvement or upgrades to business processes, hardware or software.

The NDRSMP is a major acquisition project that will replace the current National Distress System. Not only will it enhance the VHF-FM capabilities but will also add features that are needed by the Coast Guard to perform their many missions

The NDRS Modernization Project will replace the VHF-FM system with VHF-FM, MF and UHF capability. The enhanced communications will provide continuous and uninterrupted guard on Channel 16 and provide sufficient communications capacity to support multiple operations in the same or different geographic areas. At a minimum, it will provide a combination of 4 simultaneous voice and/or data channels to/from any specific point within the associated shoreside facility's area of responsibility. Additionally, Digital Selective Calling (DSC), channel 70, will bring the Coast Guard into A2 compliance with the International Maritime Organization (IMO) agreement.

Additional features that will assist Coast Guard operations are direction finding which will assist in locating uncorrelated mayday's and identifying hoax callers. Asset tracking will assist in maximizing Coast Guard vessel mobility within ports and waterways. Secure communications will assist in covert surveillance in drug and migrant interdiction. Interagency and Federal agency interoperability will sustain complete military readiness. Caller ID will provide recall information if the caller is disconnected and identify suspected hoax calls. Voice recording/playback will assist in verifying caller information.

In the interim, at specific sites, limited direction finding and asset tracking capabilities will be installed to keep up with the demands of our customers.

- e) Highlight any problem areas, technology issues, etc.

In addition to paragraph (c) the NDS lacks Direction Finding (DF) (position location), asset tracking, caller ID, multiple voice/data channels, Digital Selective Calling (DSC) and voice recording/playback.

- f) For the newest assets, discuss improvements over old assets in terms of costs and capability/capacity.

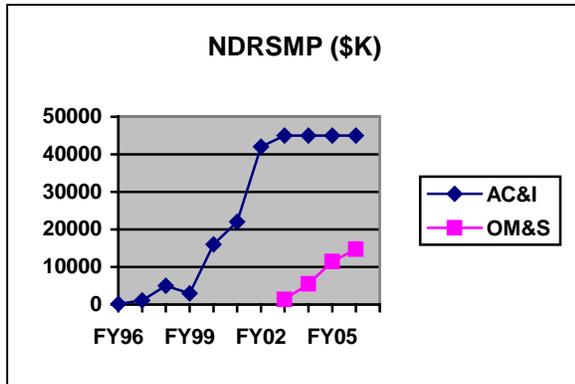
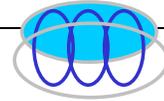
The NDRSMP is in the full-scale development process. The Request For Proposal (RFP) will be posted to the web October 1999 for contractual bidding. Important features that will be part of the NDRSMP that are not part of the NDS are Direction Finding (DF) (position location), asset tracking, caller ID, multiple voice/data channels, Digital Selective Calling (DSC) and voice recording/playback. These have all been identified as necessary additions to the Coast Guard communications system.

- g) Projected functional life (industry standard):

The projected life of the NDS was 15 years. The system is now approaching 30 years and is rapidly deteriorating.

## FUNDING HISTORY

- **NDS:** OM&S: Derived legacy cost figure (from contractor work and G-SCT data) for FY98 was \$8.2M per year. This is rough order of magnitude that did not capture many other costs. Recently contracted with our Technical Direction Agent (SPAWAR San Diego) to do another NDS legacy cost study, capturing more TOC. Result should be available Fall 00. AC&I data for NDS unavailable.
- **NDRS:** See graph below:



- NDRS notes:
  - Then-year dollars. FY98 base inflated at 2.6%/yr for outyears.
  - OM&S: NDRS comes on line with IOC in FY03 and phased deployment FY04-06. OM&S mostly AFC42. Outyear costs continue to climb with inflation and system upgrades.
  - This NDRS data taken primarily from the various project plans (LCCE, AP, etc).



## ASSET

### OPERATIONAL SYSTEMS

Refer to list below for the systems, projects and initiatives that comprise this class of assets. Capital Programming Profiles have been submitted for each of these systems and may be viewed (through the electronic version of this page) by clicking on the hyperlink below.

- [Automated Mutual-Assistance Vessel Rescue \(AMVER II\) System](#)
- [Auxiliary Management Information System II \(AUXMIS II\)](#)
- [Computer Assisted Search Planning System \(CASP I\)](#)
- [Coast Guard Intelligence Support System \(CGISS\)](#)
- [Engineering Information Technology System \(EITS\)](#)
- [HC-130 Long Range Search Aircraft AN/APS-135 Side Looking Radar \(HC-130 SLAR\)](#)
- [HC-130 Sensor Upgrade](#)
- [HU-25B Aireye Remote Sensor System \(HU-25B Aireye\)](#)
- [Joint Maritime Information Element \(JMIE\)](#)
- [Legal Automated Workstation System Database \(LAWSdb\)](#)
- [Law Enforcement Information System II \(LEIS II\)](#)
- [Loran-C Operations Information System \(LOIS2\)](#)
- [Marine Information for Safety and Law Enforcement \(MISLE\)](#)
- [Merchant Mariner Licensing and Documentation System \(MMLD\)](#)
- [Sensor Upgrade for Maritime Patrol Aircraft \(MPA\)](#)
- [Marine Safety Information System \(MSIS\)](#)
- [Navigation Systems Information Dissemination Network \(NSIDN\)](#)
- [Ports and Waterways Safety System \(PAWSS\)](#)
- [Search and Rescue Management Information System \(SARMIS\)](#)
- [Shipboard Command and Control System - 270 \(SCCS-270\)](#)
- [Shipboard Command and Control System - 378 \(SCCS-378\)](#)
- [Sensor Technology Evaluation](#)

The above systems are not all inclusive of operational systems. Some systems above are listed as an Operational system however they can be found as parts of other assets listed in this document.

## MISSION(S)

Operational systems are broken down into various categories in support of all Coast Guard mission areas. In the Search & Rescue area, systems provide operators the ability to locate potential sources for Search & Rescue efforts as well as allow personnel to make extensive use of geographic factors to plan search and rescue cases. Upon completion operational systems provide for the capability to capture effort data on specific cases. Other operational systems provide real time detection of information that can be used to plan Search & Rescue efforts as well as law Enforcement actions. The Marine Safety and Environmental Protection mission area uses operational systems to enforce the laws & treaties imposed on the maritime community to include such things as vessel inspections and mariner licensing.

The use of Operational systems provides the force multipliers in meeting Strategic and performance goals.

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2	P1, P2, P3, P4	M3	C1, C2, C3	N1, N2



## CAPABILITY

The Operational systems as a portfolio allow personnel to perform a variety of programmatic missions. Operational systems can be found ashore in the Marine Safety environment providing Inspectors with the capability of reviewing inspections of vessels as well as in the afloat operational environment providing the sensors and communications systems necessary in the fight against drugs or the protection of our marine environment. Shore based Operational systems also provide personnel the tools necessary to plan Search & Rescue searches as well as to capture the effort of resources as they effect Coast Guard Missions.

Operational systems provide operators the capability to record enforcement actions and then analyze past efforts to determine probable areas of improvement as well as probable enforcement action item. Still other Operational Systems are used to sense and classify targets, such as fishing vessels, drug runners and migrant smugglers.

Operational systems provides operations personnel the information necessary to Collect & record and Exchange information. In addition operational system provide Information Support, which builds into Decision support capabilities.

The capabilities of various systems are in varying degrees of refinement. Some systems are robust and provide current, real time information. Other systems are legacy systems that are in the process of being replaced or improved to better meet their C2 roles.

Gaps exist in sensors, communications, decision support and information systems. These gaps are identified in the USCG C41 Objective Architecture and Transition Plan (COMDTINST 3090.7). Current gaps exist in the coverage of operational systems such as PAWSS, MSIS, AMVER, and CASP. Shortfalls exist in both hardware capabilities as well as software capabilities. Other gaps exist in shipboard systems such as SCCS-270 and SCCS-378 primarily in their ability to capture and collect operational information. Efforts are in place to modernize systems to automate various actions of the Reporting Officer.

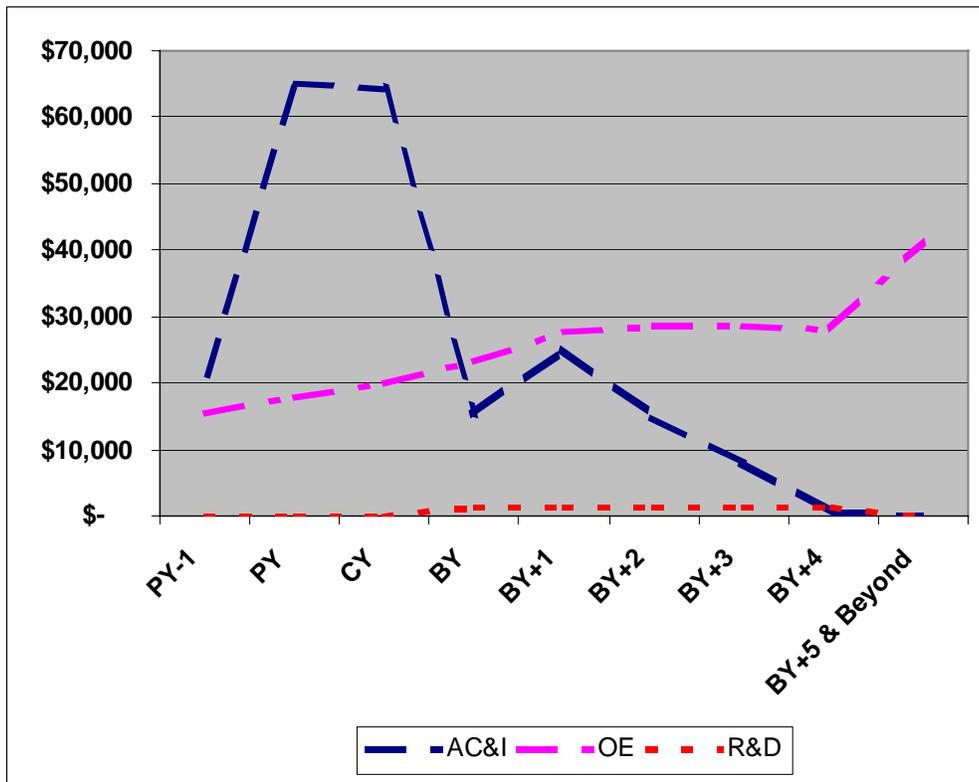
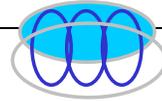
All operational systems are in various stages of Operations & Maintenance. All systems utilize a portion of their O&M funds to execute changes and improvements. Some aspects of these operational systems are above & beyond the O&M funds and as such are being replaced.

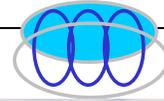
## FUNDING HISTORY

The funding profile for Operational Systems is as follows (see individual Capital Programming Profile sheets for breakouts):

(In \$ thousands)

APPN.	PY-1	PY	CY	BY	BY+1	BY+2	BY+3	BY+4	BY+5 & Beyond
AC&I	\$ 21,171	\$ 65,207	\$ 64,191	\$ 15,367	\$ 25,145	\$ 14,809	\$ 8,200	\$ 700	\$ 200
OE	\$ 15,679	\$ 17,881	\$ 20,147	\$ 23,327	\$ 27,726	\$ 28,815	\$ 28,729	\$ 28,078	\$ 41,321
R&D	\$ -	\$ -	\$ -	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ -
Total	\$ 36,850	\$ 83,088	\$ 84,338	\$ 40,194	\$ 54,371	\$ 45,124	\$ 38,429	\$ 30,278	\$ 41,521





## ASSET

LORAN-C

Location(s): 24 stations nationwide



## MISSION(S)

- (a) Mission Statement: The mission of the Loran-C Navigation system is to assist the flow of maritime and air commerce in all weather conditions by providing a hyperbolic system to an unlimited number of users at nearly 100% availability with an accuracy better than .25nm.
- (b) Loran-C supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S5	P4	M1, M2	C1, C2, C3	N1, N2

- (c) By providing a reliable radionavigation and positioning service, the 24 stations that comprise the Loran-C system promotes safety at seas, law enforcement, mobility and transportation, and national defense by providing a reliable means of fixing one's position.

## PHYSICAL PLANT

- (a) Single Site Unit or Multiple Site Unit? Multiple
- (b) Total acreage: The 24 U.S. Loran stations vary in acreage from 72 to 2646 acres. However, most stations occupy approximately 210 acres. The Loran Monitor sites are frequently co-located with other commands or federal installations. Those that are not usually occupy less than an acre.
- (c) Number of buildings: The number of buildings and square footage of each varies greatly from station to station.

## CAPABILITY

- (a) The Loran-C navigation system assists the flow of maritime and air commerce in all weather conditions by providing a hyperbolic system to an unlimited number of users at nearly 100% availability with an accuracy better than .25nm. As operated, the Loran-C radionavigation system is the federally provided radionavigation system for civil marine use in U.S. Coastal waters. It is also designated by the Federal Aviation Administration as a supplementary system in the National Air Space. This system provides accurate radionavigation and timing services to users in the United States and Canada.
- (b) Demand for Loran-C is anticipated to continue it's downward trend as users increasingly transition to GPS and it's augmentations. However, there is still a strong core of users that desire Loran continuation past the Dec 31, 2000 termination date announced in the 1996 Federal Radionavigation Plan. This users support, coupled with questions regarding the vulnerability of GPS and it's augmentations to jamming and Congressional backing for a backup system to GPS, has caused the Department to reevaluate the future of Loran. The Department's current proposal calls for an extensive Loran modernization project to sustain the system until 2008.
- (c) If the Loran-C navigation system is to continue operation past the Federal Radionavigation Plan announced termination date of Dec 31, 2000, then the system will require an extensive \$110M for recapitalization and modernization, and \$12.2M to manage the project. This recapitalization will replace antiquated and dangerous tube-type transmitters at 11 stations, several towers that are at the end of their design life, the entire timing and



control suite equipment, several Loran runways, and the building modifications necessary for the installation of the new solid state transmitters.

- (d) If a decision is made to continue LORAN past 2008, an additional \$39M in capital improvements will be necessary to replace additional towers and structures.

## FUNDING HISTORY

LORAN-C was established in the U.S. and overseas (to meet a DOD requirement) during the 1960s/1970s, and operated by the Coast Guard. Overseas LORAN (Europe and the Far East) was terminated in 1994 and the assets transferred to the host nations. The Coast Guard continues to operate the remaining 24 U.S. stations. The present LORAN infrastructure has reached the end of its service life and requires recapitalization. FAA to fund the LORAN-C recapitalization project.

- (a) FAA Funded Improvements

FISCAL YEAR	PROJECT/UPGRADES/IMPROVEMENT	APPROPRIATED FUNDS
1987-1992	Mid-Continent LORAN-C Expansion	\$ 34,657,959
1997-1999	LORAN-C Improvements	10,203,600
2000-2004	Recapitalize LORAN-C*	122,500,000

\*Total modernization expenditures will be approximately \$122.5M, which includes \$110M for recapitalization and \$12.2M to manage the project.

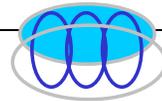
- (b) History of major maintenance or upgrade investments, average annual O&M cost related to preserving capability.  
Budgeted Costs:

	1995	1996	1997	1998	1999 *
AFC 30:	\$17,278,493	\$5,865,724	\$5,033,019	\$5,024,944	\$3,193,090
AFC 42:			7,576	2,813	11,141
AFC 43:	2,678,582	2,186,567	1,425,359	1,122,366	683,945

\* 1999 figures reflect funding through third quarter. Original info from Web EIS.

## CURRENT PERSONNEL ALLOWANCE

Officer:	21
Warrant Officer:	18
Enlisted:	276
GS:	12
WG:	0
Contract:	0
TOTAL:	327



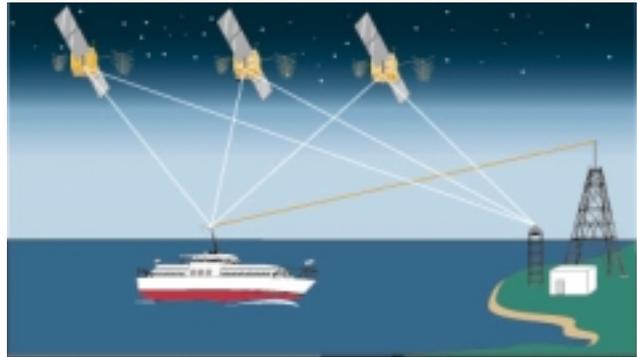
## ASSET

DGPS/NDGPS

Location(s): Various throughout United States

## MISSION(S)

The mission of the Maritime DGPS system is to provide mariners with reliable position accuracy's of better than 10 meters (2drms – about 95% of the time) when navigating in harbor and approach areas of the continental U.S., Alaska, Hawaii, and Puerto Rico and dual coverage in selected VTS areas. The Nationwide DGPS expansion project will expand this coverage throughout the U.S.



DGPS/NDGPS supports the following Coast Guard strategic and performance goals:

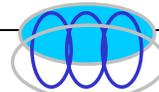
CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S5	P4	M1, M2		N1, N2

## PHYSICAL PLANT

- (a) Single Site Unit or Multiple Site Unit? Multiple
- (b) Total acreage: There are 45 maritime sites and 11 USACOE sites. DOT plans to install 65 to 75 additional sites for the NDGPS project. Each site is approximately 11 acres of property (varies greatly on location, many are co-located with CG installations).
- (c) Number of buildings: All sites have an equipment shelter (10ft X 16ft). Some sites have an additional generator hut. NDGPS sites will have three 8ftX8ftX16ft shelters.

## CAPABILITY

- (a) All maritime DGPS Service broadcast sites are operational, providing better than 10-meter (95 percent) horizontal navigational accuracy with reliability and integrity. The system has greatly enhanced the efficiency and ability of the Coast Guard to establish and maintain aids to navigation and provides a vital navigation tool to commercial vessel traffic conducting commerce in U.S. ports. Eleven of the Maritime DGPS sites incorporate NOAA's GPS Surface Observing Systems (GSOS) for measuring weather data and precipital water vapor measurements for forecasting. In addition, all sites have integrated NOAA's Continuously Operated Reference Station (CORS) equipment used for precise positioning and survey uses. The full GPS signal is archived and made available publicly for all post-processing GPS applications through the Internet. The NDGPS will provide the required enabling technology for the Federal Railroad Administration's Positive Train Control initiative, and will benefit the Federal Highway Administration's Intelligent Transportation Systems, precision farming, weather forecasting, survey and other applications.
- (b) The system is currently meeting demand. The Coast Guard continues to enhance the availability of the signal through additional site builds in AK and HI.
- (c) It is expected that as maritime commerce becomes more dependent on new technology, the need for accurate and reliable DGPS services will become even more important. In the next 2-5 years, the Coast Guard will continue to be challenged in providing the same high level of service, despite aging equipment and a greater user base.
- (d) The Coast Guard is working to make the system more robust through site and signal improvements such as tower studies to determine the best tower structures, transmitter studies to determine the most efficient use of power, and contingencies to account for failures of services. Equipment is constantly being updated and improved to



keep up with the rapidly changing technological advances in electronics and communications. The Coast Guard is also challenged in developing a "standard/optimal" configuration for DGPS/NDGPS. Many of the sites are recycled from old radiobeacon sites or decommissioned USAF Ground Wave Emergency Network (GWEN) antenna sites. Maintaining the proper level of depot support and technical knowledge to repair the varied architectures is paramount to maintaining the system and signal availability.

- (e) Projected end of service year life is 15 years .

## FUNDING HISTORY

- (a) AC&I Appropriation for DGPS

<u>FISCAL YEAR</u>	<u>PROJECT/UPGRADES/IMPROVEMENT</u>	<u>APPROPRIATED FUNDS</u>
1992	Maritime DGPS - Design, Construct, Evaluate	1,600,000
1993	Maritime DGPS - Evaluate, Procure, Site Construction	6,200,000
1994	Maritime DGPS - Procure Equip. & Site Construction	6,600,000
1996	Maritime DGPS - Broadcast Site/Transmitter Replace.	1,700,000
1998	Maritime DGPS - Site Construction	1,000,000
1999	Maritime DGPS - Close Coverage Gap to reach FOC*	2,000,000

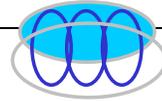
\*FOC = Full Operational Capability

- (b) OE Appropriation for DGPS

<u>FISCAL YEAR</u>	<u>PROJECT/UPGRADES/IMPROVEMENT</u>	<u>APPROPRIATED FUNDS</u>
1993	Maritime DGPS	\$ 155,000
1994	Maritime DGPS	1,000,000
1995	Maritime DGPS	1,015,000
2000	Maritime DGPS	939,000

- (c) AC&I Appropriation for NDGPS

<u>FISCAL YEAR</u>	<u>PROJECT/UPGRADES/IMPROVEMENT</u>	<u>APPROPRIATED FUNDS</u>
1998-1999	Establishment of Nationwide DGPS	\$ 7,900,000



## CURRENT PERSONNEL ALLOWANCE

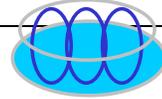
### DGPS:

Officer:	13
Warrant Officer:	0
Enlisted:	38
GS:	0
WG:	0
Contract:	0
TOTAL:	51

### NDGPS:

Officer:	2
Warrant Officer:	0
Enlisted:	0
GS:	6
WG:	0
Contract:	0
TOTAL:	8*

\*These numbers do not reflect the additional reimbursable billets required in FY 00 as the NDGPS system continues to come on line.



## ASSET

295-Foot (89.9M) Sail Training Ship  
USCGC EAGLE (WIX-227)

## MISSION(S)

The USCGC EAGLE is a three-masted sailing ship, primarily used for training Cadets from the United States Coast Guard Academy and Officer Candidate School; both located in New London, Connecticut. A secondary mission of the EAGLE is goodwill visits and representation of the Coast Guard during training cruises and special operations such as OPSAIL.

## INVENTORY

USCGC EAGLE is home-ported at the United States Coast Guard Academy in New London, Connecticut.

## CAPABILITY

The USCGC EAGLE is specifically crewed to facilitate the training of various groups in the many aspects of navigation, seamanship, leadership, and teamwork. The primary focus groups are the Coast Guard Academy and Officer Candidate students. In addition, EAGLE has been utilized for training classes of enlisted students requiring seamanship training.

### Physical Characteristics

Length overall:	295 Feet
Beam:	39 Feet, 1 Inch
Full Load Draft:	17 Feet
SHP:	1000
Full Load Displacement:	1816 Tons

### Operational Characteristics

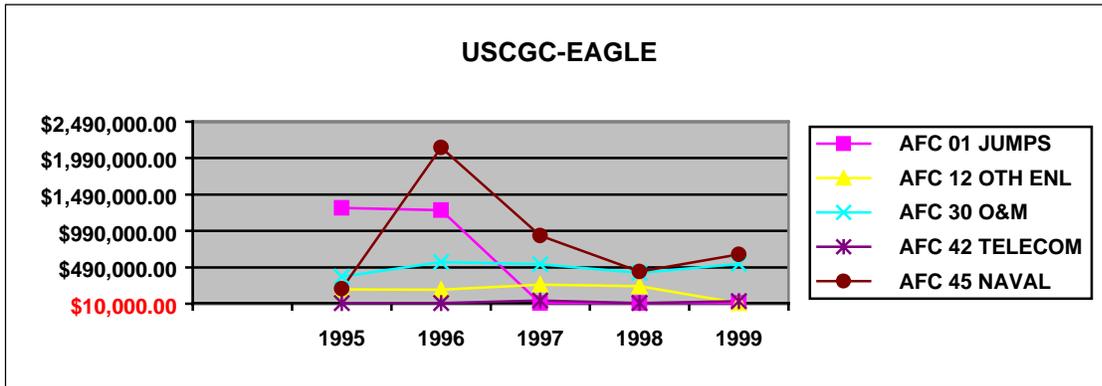
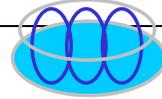
Crew:	35 Permanent, 175 Cadets and Instructors
Speed:	17 Knots under sail, 10 knots under power
Cruising range:	5,450 Nautical Miles, at 7.5 Knots
Endurance:	30 Days unreplenished
Maximum seas:	25 Feet

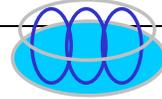
PESL: 2020

This vessel is in good condition.

## FUNDING HISTORY

	1995	1996	1997	1998	1999
AFC 30 O&M	363,464	562,601	533,855	414,310	534,617
AFC 42 TELECOM	-1,874	0	33,842	0	24,980
AFC 45 NAVAL	197,301	2,136,626	924,049	433,155	667,656





## ASSET

USCG Finance Center

Location(s): Chesapeake, VA



## MISSION(S)

- (a) Support Coast Guard missions by providing accounting and financial services to a global customer base.
  - Produce financial management information and related reports from official accounting records.
  - Process payments.
  - Execute fiduciary responsibilities in consonance with policy and regulatory authorities.
  - Develop, implement, and support innovative financial systems.
  - Implement financial policy and develop accounting procedures.
  - Establish and maintain accounting controls over Coast Guard resources.
- (b) Unit Performance Goals: provide quality accounting and financial information services for the U.S. Coast Guard.
- (c) Description of how unit performance goals contribute to achievement of CG Strategic & Performance Goals: FINCEN establishes and maintains accounting controls over Coast Guard resources.

## PHYSICAL PLANT

- (a) Single Site Unit
- (b) Total acreage: 1.63 acres
- (c) Number of building: 1
- (d) Total square footage: 71,291

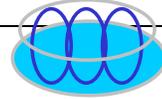
(e)	<u>Primary Build/Structure</u>	<u>Total Sq Ft</u>	<u>Leased Sq Ft</u>	<u>Description Of Use</u>
	(1) CG Finance Center	71,291	71,291	working area for 355+ personnel

- (f) Tenant Command(s): Though not tenant commands, we provide building space for CGES and a Credit Union.
- (g) Unique Equipment/Facility: Data Processing Center with 5 HP T600s and 4 ALR Large Scale Servers. State of the art communications suite with high speed routers and with eleven and capacity of up to 450 T1 lines.

## CAPABILITY

The Finance Center provides accounting and financial services to the Coast Guard as well as the Department of Transportation via several business processes and applications. The Finance Center serves as one of the Coast Guard's data centers. The following significant business applications are currently installed on Finance Center resources:

- BEDS – Budget Execution Data System to Support Budget Analysis
- AFIPS – Automated FINCEN Industrial Posting System
- AVR 1-800 – Automated Voice Response System for Customer Support
- CBS – Consolidate Billing System to Support Credit Card Accounting & Payments
- FREDIM – FINCEN Rapid Electronic Data Interchange Processing
- LFPS – LUFS File Processing System for Processing of Unit Level Accounting Information
- MLS-1080 – Processes intergovernmental bills for DAFIS (Core Accounting System)
- Payment History – Payment information and reports not available in DAFIS
- A/R – Oracle Accounts Receivable



- WINS Utilities – Accounting & Bill Payment of Utilities
- SFM – Supply Fund Reconciliation Module
- T16-Vendor WINS – Vendor Support
- TAC – Travel Advance Control
- WINS – Workflow Image Network System – Voucher Examination/Bill Paying Documentation
- PESTRACK - PES Tracking System/Account Reconciliation
- ORACLE Financials – Full Financial Accounting/Reporting
- ORACLE Assets – Property Management
- ORACLE Projects – Project Cost Management
- FASER – Energy Reporting
- ORACLE Inventory – Industrial Support

Finance Center provides full accounting and financial management services that include bill paying, financial reporting, internal financial controls, property management, accounting services, and information technology support. The Finance Center exports data and serves as the access point for the Coast Guard to the Departmental Accounting and Finance Information System (DAFIS) (core accounting system). Support across the Department of Transportation is provided for bill paying (i.e. credit cards, FEDEX) as well as automated voice response system. Increasing demands have been placed on the Finance Center to support the financial reporting, auditing, and system requirements of the Chief Financial Officers Act. In addition, Finance Center provides internet gateway access for the entire Coast Guard. Future capability includes centralizing of all Coast Guard bill paying requirements, centralizing of all financial records, and serving as a data warehousing and data center disaster recovery back up site for the Coast Guard. Additional resources will be needed to meet these demands.

Due to the rapid growth of technology and increasing legislative mandates, the Finance Center is required to update their information technology on a regular basis. Information technology hardware requires recapitalizing every three to five years. The constant updating of commercial off-the-shelf software requires continual efforts to keep applications current to meet the financial information needs of the Coast Guard. In addition, the Finance Center is a key member of the team evaluating and implementing DELPHI, the replacement for DAFIS. Adequate resources need to be applied to meet these requirements.

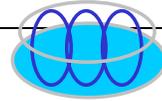
## FUNDING HISTORY

(a) AC&I Appropriation as expended.

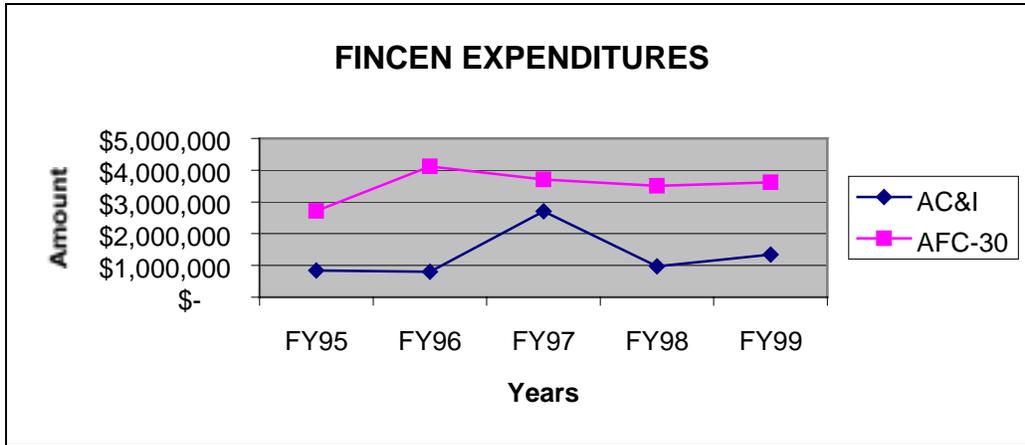
	FY95	FY96	FY97	FY98	FY99
Computer Replacement	\$ 844,094	\$ 805,959	\$ 2,702,693	\$ 975,906	\$ 1,341,449

(b) Annual OE expenditures:

	FY95	FY96	FY97	FY98	FY99
AFC-30	\$ 2,719,268	\$ 4,118,517	\$ 3,707,698	\$ 3,508,020	\$ 3,612,716

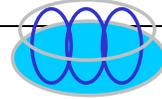


(c) Funding graph:



## CURRENT PERSONNEL ALLOWANCE

Officer:	6
Warrant Officer:	3
Enlisted:	37
GS:	266
WG:	0
Contract:	54
<b>TOTAL:</b>	<b>366</b>



**ASSET**

National Pollution Funds Center (NPFC)  
Arlington, VA.

**MISSION(S)**

The NPFC is the fiduciary agent for the Oil Spill Liability Trust Fund and the portion of Superfund accessible to the US Coast Guard. It provides funding for removal actions and the initiation of Natural Resource Damage Assessments (oil only), compensates claimants who demonstrate that certain damages were caused by oil pollution, recovers pollution costs and damages from responsible parties, and certifies the financial responsibility of vessel owners and operators. Strategic goals supported are protection of Natural Resources.

<b>CG STRATEGIC GOALS</b>	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
<b>CG PERFORMANCE GOALS</b>		P1, P2, P3, P4			

**PHYSICAL PLANT**

The NPFC is a GSA lease facility.

**CAPABILITY**

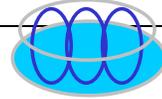
NA

**FUNDING HISTORY**

Section under development

**CURRENT PERSONNEL ALLOWANCE**

Officer:	15
Warrant Officer:	2
Enlisted:	14
GS:	83
WG:	
Contract:	
TOTAL:	114



## ASSET

Aviation Training Center Mobile  
 Location: Mobile, Alabama



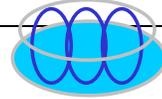
## MISSION(S)

- (a) Mission Statement: produce mission ready aircrews for operational commanders.
  - provide core training for rotary wing and fixed wing pilots, rescue swimmers and aircrews for air stations Coast Guard wide.
  - provide direct aviation support to Polar ice breaking, Coast Guard Atlantic Area and the Eighth Coast Guard District.
  - provide health and work-life services to military families throughout the Mobile metropolitan area, to enhance their ability to support Coast Guard operations.
  - strive to ensure the safe accomplishment of all mission tasking by implementing Coast Guard Safety and Health Programs that provide all employees and their families a safe and healthful environment.
- (b) Unit Performance Goals: The following performance goals are taken from ATC's Management Plan for FY00:
  - Goal 1. Provide world class training to the Coast Guard Aviation Community.
  - Goal 2. Continuously improve Operational Mission Capability.
  - Goal 3. Continuously improve our safety program to ensure a safe working environment for all members and expand our influence and reputation as the leader in Coast Guard flight safety.
  - Goal 4. Provide leadership and a human resource management program to enable all our people to reach their full potential.
  - Goal 5. Exploit the latest advances in technology to achieve gains in productivity and enhance mission performance.
  - Goal 6. Ensure that ATC embodies the best in fiscal, infrastructure and support management practices.
- (c) Description of how unit performance goals contribute to achievement of CG Strategic & Performance Goals: ATC Mobile's Goal 1 directly supports Coast Guard Performance Goals S1, S2, S5, P1, P3, P4, M3, M4, C1, C2, C3, N1 and N2. These goals are supported through ATC's Operations and Polar Operations divisions. The Operations Division provides direct aviation support to the Eighth Coast Guard District and LANTAREA with dedicated HU-25 aircraft, as well as occasional helicopter support for natural disasters. The Polar Operations Division specifically supports Coast Guard Performance Goals M3 and M4 through their direct aviation support of all Polar-class icebreaker deployments to the Arctic and Antarctic regions. ATC's Goals 3, 4, 5, and 6 indirectly support all Coast Guard Performance Goals listed above through their direct support of the units Goals 1 and 2.

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S5	P1, P3, P4	M3, M4	C1, C2, C3	N1, N2

## PHYSICAL PLANT

- (a) Single Site Unit
- (b) Total acreage: 221 acres
- (c) Number of buildings: 49
- (d) Total square footage: 385,400 sf
- (e) Primary Build/Structure
  - (1) Hangar 81,666 sf
  - (2) BOQ/BEQ/Galley 81,000 sf
  - (3) Flight Training Systems 20,000 sf



- (4) Exchange/Grocery Annex 46,909 sf
- (5) Supply 26,615 sf
- (6) Gulf Strike Team Hangar 22,571 sf

- (f) Tenant Command(s): Gulf Strike Team, D8 LEDET
- (g) Unique Equipment/Facility: 3 flight simulators for HH-65, HH-60, HU-25

**Note: Does not include secondary buildings/structures such as parking lots, storage sheds, garages, storage tanks etc.**

## CAPABILITY

- (a) ATC Mobile's Training Division currently provides vital aircraft simulator training in three of the Coast Guard's four operational aircraft. This simulator training saves valuable aircraft programmed hours, improves the mission effectiveness and enhances safety of Coast Guard H65, HU25, and H60 pilots. ATC's Operations Division provides CG operational commanders with air transportation, direct intervention and information/intelligence gathering in support of SAR, MEP, ATON, Commercial Vessel Safety, Recreational Boating Safety, and LE operations. The Operations Division flies maritime patrol aircraft in multi-mission roles, deploys to forward bases in support of counter-narcotics and Alien Migration Interdiction Operations, provides contingency response operations during hurricanes in the Gulf of Mexico, and as part of community outreach, attends 10 major airshows per year, plus hosts thousands of area school students onboard for aviation tours. ATC's Polar Operations Division provides deployed HH-65 aircraft and crews to support all Arctic and Antarctic deployments by the Coast Guard's Polar-class icebreakers in support of the Coast Guard's icebreaking mission and the National Science Foundation.
- (b) The simulator for the HU25 and H65 are well past their mid-life time. Both are increasingly difficult to maintain and are in critical need of modernization. The H60 simulator is near mid-life and must be updated to ensure continued useful life. Currently, ATC Mobile is able to provide simulator training to all personnel who require it. However, this training is offered in simulators that drastically need updating. Maintenance due lists and gripes are rapidly piling up so that eventually the simulators will not function. Our current capability to supply required services (operational assets) is quite good. There are factors on the horizon that may affect this ability in the future (e. g. pilot/aircrew retention, declining talent/experience base in the ranks, and aging aircraft in the fleet).
- (c) Coast Guard aviation has a pilot shortage. The pilot pipeline has been opened to its' fullest and this will dramatically increase the number of pilots requiring training by ATC. The simulator program will be required to spin up to meet this demand. In addition, if the Coast Guard buys a new platform for the Airborne Use of Force Program, a simulator will need to be purchased to support this element. This would mean a major AC&I project to construct housing for this asset. An increase in students will also increase wear and tear on BOQ/BEQ structures. ATC Mobile houses many non-rates off ship and shore units. Increased student load will decrease availability of rooms to units. Consideration may be given to new construction if student loads will sustain a higher throughput.

An operational gap that exists now is the shortage of SAR assets in the Florida panhandle area, between Panama City and Yankeetown. The population is growing along that stretch of coastline and an increase in SAR cases can be logically forecast.

The upcoming delivery of the Coast Guard's third icebreaker, the USCGC HEALY will effectively double the workload for the Polar Operations Division. The actual number of aircraft and personnel has not yet been provided to adequately support this mission increase. If additional aircraft are provided to ATC to support this mission, then hangar space is a major concern. ATC's only aircraft hangar is already at or beyond capacity with the number of aircraft assigned. The addition of any more aircraft will require the construction of additional hangar space to properly support all ATC aircraft.

- (d) There is an FY01 RCP for simulator upgrades at ATC Mobile.

The Operations Division is working on plans to modernize and automate the routine flight planning functions done before each flight, and is working on a project to enable the aircraft to deliver near real time digital photographs of Targets of Interest back to the operational commander via the Internet.

An RCP has also been submitted to address the forecasted shortfalls within the Polar Operations Division, due to the delivery of the USCGC HEALY.



- (e) The H60 simulator is our newest and it towers in comparison to the other two in capability. The visual presentation is better, the aircraft feel is closer to the actual aircraft; therefore, the quality of training is much better.

## FUNDING HISTORY

AC&I Facility Project Funds from FY95-99: \$0  
 AC&I Improvements & Upgrades by FY (capital improvements >= \$200K): \$0

AFC Funding History FY95-99:

<u>AFC-42</u>	<u>AFC-30</u>	<u>AFC-45</u>	<u>AC&amp;I</u>
FY95: \$10.8K	\$6.2M	\$0	\$0
FY96: \$0K	\$6.6M	\$0	\$0
FY97: \$0	\$5.5M	\$0	\$0
FY98: \$0	\$6.2M	\$0	\$0
FY99: \$0	\$4.5M	\$0	\$0

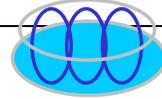
Average annual OE costs related to preserving capability:

Budgeted Costs:  
 AFC-43: \$858K  
 AFC-30: \$5.8M

## CURRENT PERSONNEL ALLOWANCE

Officer:	76
Warrant Officer:	7
Enlisted:	234
GS:	23
WG:	4
Contract:	*60
TOTAL:	404

Contract personnel include security, facilities maintenance, simulator maintenance, janitorial, medical, galley/barracks, Unisys, GSE garage



## ASSET

Container Inspection Training and Assistance Team (CITAT)  
Oklahoma City, OK.

## MISSION(S)

The CITAT provides container inspection assistance to Coast Guard units implementing the national container inspection program. It promotes the standardization of inspection procedures by providing deployable on-site training packages to CG units involved in container inspection, assisting MSOs during CG participation in multi-agency strike force operations, coordinated joint inspection with other federal, state and local agencies. Strategic goals supported are Safety, Protection of Natural Resources, and Mobility.

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S3, S4	P1, P2, P3	M1		

## PHYSICAL PLANT

The CITAT is a lease facility.

## CAPABILITY

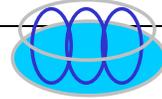
N/A

## FUNDING HISTORY

Section under development

## CURRENT PERSONNEL ALLOWANCE

Officer:	2
Warrant Officer:	1
Enlisted:	6
GS:	
WG:	
Contract:	
TOTAL:	9



## ASSET

National Strike Force Coordination Center (NSFCC)  
Elizabeth, N.C.

## MISSION(S)

The NSFCC provides support and standardization guidance to the three Strike Teams. The Center also supports the Public Information Assist Team (PIAT), maintains the national oil spill Response Resources Inventory (RRI), and facilitates the implementation of the National Preparedness for Response Exercise Program (PREP). Strategic goal is the Protection of Natural Resources.

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS		P1, P2, P3, P4			

## PHYSICAL PLANT

The NSFCC is a leased facility.

## CAPABILITY

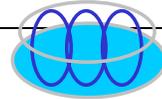
N/

## FUNDING HISTORY

Section under development

## CURRENT PERSONNEL ALLOWANCE

Officer:	14
Warrant Officer:	2
Enlisted:	16
GS:	9
WG:	0
Contract:	
TOTAL:	41



## ASSET

Engineering Logistics Center (ELC)  
Baltimore, MD

## MISSION

The ELC was commissioned in July 1996, to integrate many functions formerly performed by its predecessor organizations; Supply Center Curtis Bay, Supply Center Baltimore and elements of Coast Guard Naval Engineering housed in Coast Guard Headquarters in Washington, D.C. The mission of the ELC is to provide life cycle support for Coast Guard equipment and systems, and to facilitate the operational effectiveness of all Coast Guard Afloat and Shore Support Units worldwide. The primary products of the ELC are parts, information and other logistic services.



The ELC has eight (8) unit performance goals. They are;

- Manage ELC assets using a systems engineering methodology (conception through disposal).
- Provide effective and efficient products and services.
- Continually align and focus ELC resources with customer needs.
- Provide a safe, satisfying and productive workplace that generates enthusiasm, rewarding career paths, educational opportunities and an empowering environment for a diverse workforce.
- Maintain a flexible organization to efficiently and effectively deliver our products and services in support of current and future Coast Guard missions.
- Involve all employees in support of the Systems Directorate Strategic Goals.
- Use information based decision-making.
- Continuously improve all ELC processes.

The eight ELC performance goals listed above have been operationalized to the point that all activity associated with the delivery of our primary products and services relate to unit performance goals. ELC provides direct engineering logistics support to operational fleet and shore support units worldwide. Thus ELC has a direct relationship to the CG Strategic and Performance goals associated with Safety, Protection of Natural Resources, Mobility, Maritime Security, and National Defense.

## PHYSICAL PLANT

The ELC offices and warehouses utilize 331,509 square feet or approximately 33.8% of total enclosed space within the Coast Guard YARD. In addition, the ELC utilizes 44,658 square feet of GSA leased office space in Glen Burnie, Md. And 170,492 square feet of leased warehouse space in Columbia Md. Currently the ELC has a planning proposal under review that will provide co-located warehouse facilities at the Coast Guard YARD.

## CAPABILITY

The ELC develops, manages and provides life cycle technical and logistical information support for vessel platforms and shore units including cross platform configurations for Hull, Mechanical, Electrical, Electronic (HM&EE) and Ordnance systems. The ELC also manages equipment configurations for communication, navigation, auxiliary, propulsion and electrical systems; providing design and engineering support. The ELC offers full one stop services including, Naval architecture, Boat design, provisioning, item management, Depot Level repairable management, cataloging, procurement, warehousing, physical distribution, quality assurance, requisition management, project management for new acquisitions (AC&I), and depot-level testing and repair of electronic equipment. The ELC also directly supports the Coast Guard YARD in all aspects of engineering and logistics support listed above. The ELC parts inventory is comprised of over 20,000 line items valued at close to \$200 million. The ELC is the central data repository for all Coast Guard HM&EE and Ordnance Technical Information. In June of 1998, the ELC achieved a milestone in



obtaining ISO 9000 Certification, joining the elite ranks of a handful of government and commercial organizations to be so recognized.

The ELC is also responsible for the operation of the Mobile Support Unit (MSU). The MSU concept was established in 1987 to provide support for deployed 110' WPBs. They have mobilized for numerous operations including OPSAIL 92 New York & Boston, Agile Provider 1994, Able Vigil 1995, Able Manner 1996, 1996 Olympics, Frontier Shield 1997 and Frontier Lance in 1998. The MSU provides repair parts support for all hull, mechanical and electrical (HM&E) systems using onsite parts trailers and/or requisitions from the supply system. The MSU provides limited on-site repair facilities for use by support personnel assigned to perform operational maintenance.

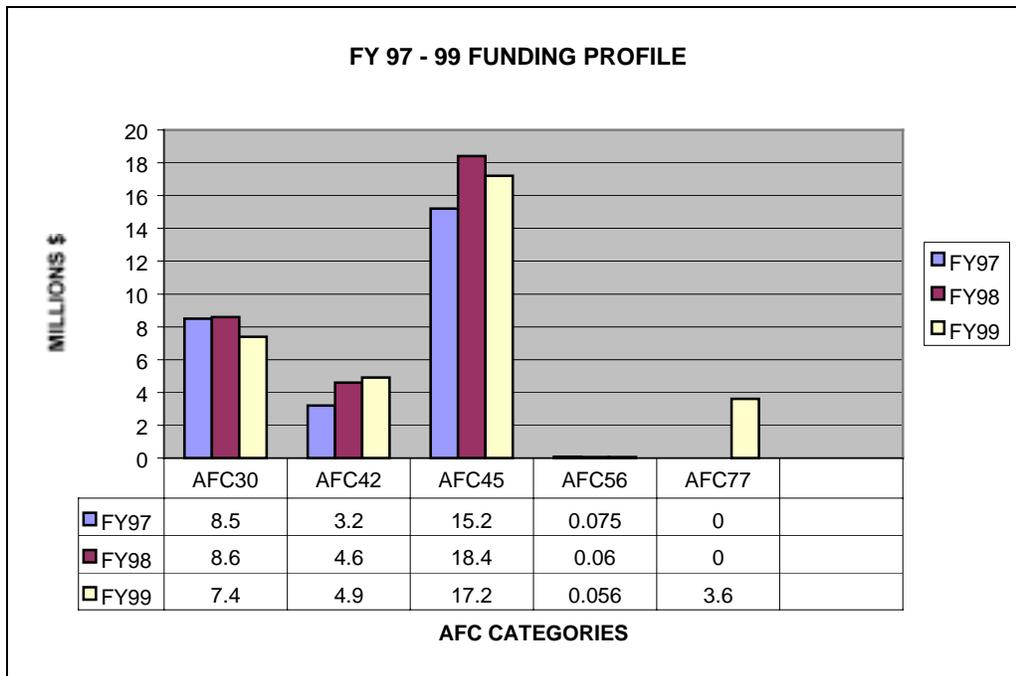
### FUNDING HISTORY:

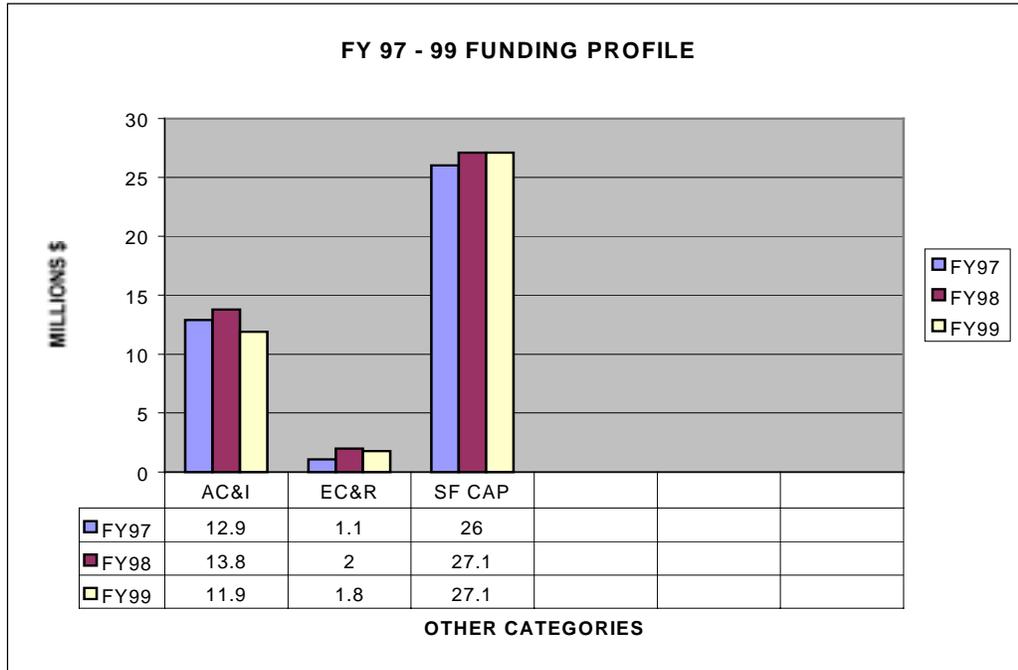
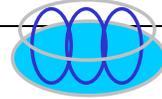
	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>
AFC30	\$8,458,617	\$8,592,504	\$7,394,671
AFC42	\$3,116,607	\$4,625,000	\$4,944,500
AFC45	\$15,173,112	\$18,412,607	\$17,205,899
AC&I	\$12,960,651	\$13,780,990	\$11,944,835
EC&R**	\$1,100,000	\$2,038,037	\$1,795,378
SF CAP***	\$26,001,046	\$27,135,468	\$27,135,468

\* AFC-77 represents Y2K funding. There are no prior AFC-77 funds.

\*\* Environmental compliance and restoration funding is project specific.

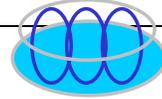
\*\*\* SF CAP Represents the Supply Fund Capital authorization allotted to the ELC for the revolving fund account that is reimbursed through funded requisitions. The cap represents on hand inventory and/or funds authorized to be used in the account.





## CURRENT PERSONNEL ALLOWANCE

Officer	42
Warrant Officer	33
Enlisted	156
Reservists	31
GS	304
WG	54
Contract	0
<b>TOTAL</b>	<b>620</b>



## ASSET

Integrated Support Commands  
Location(s): Various

## MISSION

Provide Coast Guard units and personnel with a cost effective support system that meets work life, housing, industrial, medical, human resource management and comptroller needs necessary to sustain the multi mission Coast Guard.

The Integrated Support Commands (ISCs) and Support Center Elizabeth City are designed to deliver integrated support to the operational units of the Coast Guard. As such, these platforms execute the goals and objectives of various programs; PERSRU, Work life, Industrial, Comptroller, Housing, Medical, Reserve Management, etc. An initiative is underway to develop common metrics and Customer Service Standards across platforms and programs resulting in a uniform and integrated support delivery system. These metrics will tie directly into the various program goals and the goals of the Maintenance and Logistic Commands for service delivery and customer focus.

The ISCs and Support Center Elizabeth City provide resources to ensure that operational units are ready to meet their mission requirements. Metrics are for 'Readiness Availability', meaning to provide the resources required to meet the Coast Guard's Performance Goals.

## PHYSICAL PLANT

(a) Multiple Site Unit	
(b) Total acreage:	47,115
(c) Number of building:	Various at sites.
(d) Total square footage:	9,588,774
(e) <u>Primary Build/Structure</u>	<u>Total Sq Ft</u>
(1) ISC Cleveland	3,380
(2) ISC Ketchikan	135,104
(3) ISC St Louis	114,807
(4) ISC New Orleans	120,387
(5) ISC Miami	395,600
(6) ISC Portsmouth	405,917
(7) ISC San Pedro	147,836
(8) ISC Seattle	654,758
(9) ISC Honolulu	971,338
(10)ISC Boston	741,062
(11)ISC Alameda	2,394,002
(12)ISC Kodiak	2,480,270
(13)Support Center Elizabeth City	1,024,313

## CAPABILITY

Integrated Support Commands provide various logistical support to include: work life functions, personnel administration and pay, reserve administration and management, comptroller functions, housing administration and management, industrial services, medical administration and clinic services. ISCs are currently able to meet all demands for logistic support. As new systems (TRICARE, information technology improvements to Military Pay and Personnel System, etc) occur, there will be a need to ensure a solid, well documented Coast Guard logistic system. Current fragmentation leads to inefficiencies throughout the logistic system and organization. Aging infrastructure prohibits increasing personnel/platform support. There are various initiatives being planned to ensure and/or enhance the ISCs ability to provide high quality logistical support to CG units. These initiatives include: (1) Establish Customer Service Standards for core ISC logistical functions; (2) Market standards and core sources to align expectations; (3) Establish and maintain a HQ level Support and Logistic Coordinating Council; and (4) Provide integrated support by using Business Process Reengineering (BPR) techniques across logistical systems. Major required



improvements to the ISCs include: ISC Alameda causeway, ISC Seattle Pier 36 renovation and recapitalization of building 7; ISC Miami consolidation, ISC Ketchikan renovation of industrial shops. Replacement value of all ISC shore facilities is estimated at \$2,302M.

Fragmented logistic system(s) across many program areas is considered a major issue in ensuring optimal logistic service delivery.

## FUNDING HISTORY

(a) AC&I Appropriation (table format)

AC&I Improvements & Upgrades by FY (capital improvements >= \$200K)

<u>FY</u>	<u>UPGRADES/IMPROVEMENT</u>	<u>APPROPRIATED FUNDING</u>
96	ISC Boston Rehab	\$2.0M
96	ISC Portsmouth Admin.	\$4.0M
97	ISC San Pedro Medical Facility.	\$3.7M
97	ISC Portsmouth Upgrade	\$2.0M
98	ISC Ketchikan Replace Breakwater	\$1.6M
98	ISC Portsmouth	\$4.7M
99	ISC Boston	\$2.1M

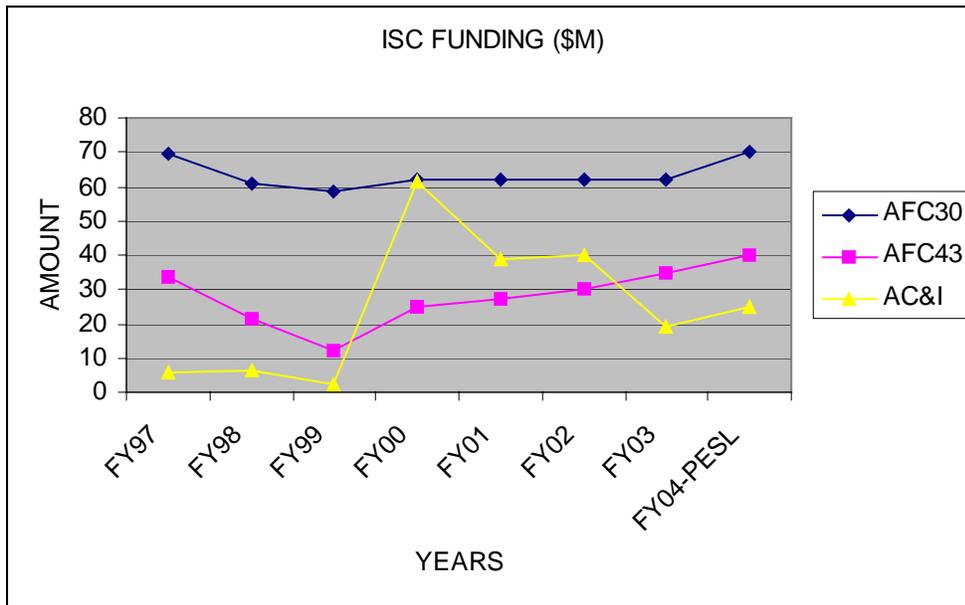
(b) Average annual OE costs related to preserving capability:

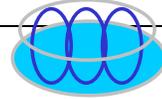
Budgeted Costs:

AFC-43: \$25M

AFC-30: \$62M

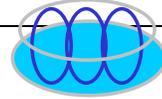
(c) Funding/investment history of the unit(s) and (2) Upgrade/Improvement costs. Funding data from CEDS and MLC/G-SLP files.





## CURRENT PERSONNEL ALLOWANCE

Officer:	159
Warrant Officer:	76
Enlisted:	1229
GS:	359
WG:	376
Contract:	
TOTAL:	2201



## ASSET

Marine Safety Laboratory (MSL)  
Groton, CT

## MISSION(S)

The Marine Safety Laboratory provides forensic oil analysis and expert testimony in support of the oil pollution law enforcement efforts for field investigators, districts, hearing officers, National Pollution Funds Center, Department of Justice, and other federal agencies. Strategic goal is the Protection of Natural Resources.

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS		P1, P2, P3, P4			

## PHYSICAL PLANT

The MSL is at the R&D Center, and the Coast Guard rents the facility through G-M.

## CAPABILITY

N/A

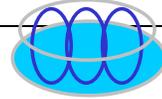
## FUNDING HISTORY

(a) Annual OE costs related to preserving capability:  
Budgeted Costs:

	FY99	FY98	FY97	FY96	FY95
AFC-30:	87,013		57,744		

## CURRENT PERSONNEL ALLOWANCE

Officer:	0
Warrant Officer:	0
Enlisted:	8
GS:	2
WG:	0
Contract:	
TOTAL:	10



## ASSET

OPERATIONS SYSTEM CENTER  
Kearneysville, WV



## MISSION

To serve the Coast Guard workforce and improve their mission performance through innovative and dependable application of Information Technology.

Unit performance goals:

- Provide operational availability and maintenance support for CG mission critical and mission essential enterprise-wide computer systems.
- Provide high quality software development and testing service for the CG.
- Provide best in class application software Hotline support, training, and field support for CG enterprise systems.

OSC supports all the operational mission areas of the CG and many of the critical support areas. Reliable and responsive enterprise computing services allow the front line operations personnel and their supporting infrastructure to carry out Coast Guard missions in an efficient, cost effective manner while documenting the results for performance measurement purposes.

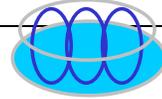
## PHYSICAL PLANT

- (a) Single Site Unit
- (b) Total acreage: 10
- (c) Number of building: 2
- (d) Total square footage: 110,000 gross

(e)	<u>Primary Build/Structure</u>	<u>Total Sq Ft</u>	<u>Leased Sq Ft</u>	<u>Description Of Use</u>
	(1) Data Center	35,000	35,000	Computer ops & office space
	(2) Main Building	75,000	75,000	Office building
(f)	Tenant Command(s): None			
(g)	Unique Equipment/Facility: Included in section		12,000	computer data floor

## CAPABILITY

The OSC services currently provided to the Coast Guard include: enterprise computer systems, user hotline support, software development, CGDN+ firewall management, computer business continuity and risk management. OSC is currently meeting all customer demands for delivered services. However, the level of staffing for government personnel needs to be increased to meet the ever increasing demand for computer services. The Coast Guard workstation infrastructure needs to be recapitalized to handle the service's growing requirement for information management needed to support Coast Guard operational missions. Planned and ongoing initiatives designed to sustain OSC's capability include acquisition of a dual power generator synchronization upgrade package and the reconfiguration of the Data floor to efficiently utilize available floor space. The Data floor is a leased facility and does not have a foreseeable end of service life, but anticipated future growth of the computer support staff and ongoing technological developments may drive the need for expansion of current leased space. The recent lease of the Data Center space has enabled OSC to keep pace with the CG's requirements for support of enterprise-wide computing.

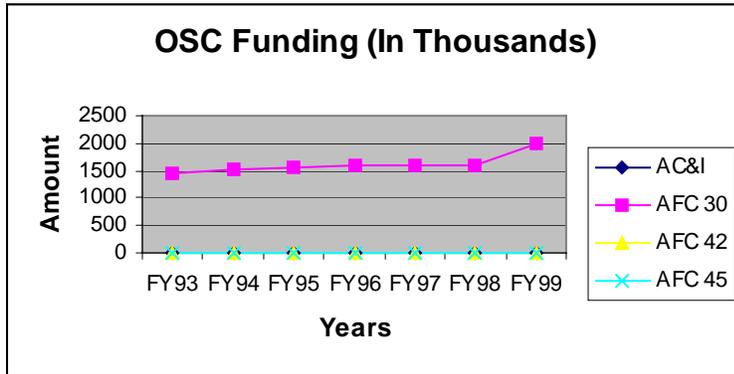


## FUNDING HISTORY

- (a) No AC&I funding. Facility is leased with OE funds.
- (b) Average annual OE costs related to preserving capability:  
 Budgeted Costs:  
 AFC-43: 0  
 AFC-30: \$2,300,000 annual GSA rent

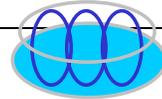
- (c) GSA Rent Funding History:

FY93: \$1,463,660  
 FY94: \$1,517,488  
 FY95: \$1,564,448  
 FY96: \$1,606,840  
 FY97: \$1,606,840  
 FY98: \$1,580,641  
 FY99: \$1,991,297



## CURRENT PERSONNEL ALLOWANCE

Officer:	14
Warrant Officer:	1
Enlisted:	13
GS:	21
WG:	0
Contract:	207
TOTAL:	256



## ASSET

RESEARCH & DEVELOPMENT CENTER  
Groton, CT and Mobile, AL (Fire and Safety Test Detachment)



## MISSION

The mission of the Research & Development Center is to conduct applied research and to develop operational techniques, concepts, systems, equipment and materials in support of the operational and regulatory programs of the Coast Guard.

Unit performance goals:

- To identify and examine existing or impending problems in the Coast Guard's operational and regulatory programs, and then to seek solutions based upon scientific and technological advances.
- To remain abreast of the most recent advancements in science and technology, to pursue and undertake an aggressive program of research and development and to adapt appropriate advancements to Coast Guard mission needs. The Program concentrates on areas of interest where the potential of high payoff for Coast Guard programs along with increased quality and productivity exists.
- To carry out tests and evaluations in conjunction with this research and development in support of all Coast Guard programs to improve mission effectiveness and efficiency.

The R&D Center supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4	P1, P3, P4	M1, M2	C1, C2, C3	

## PHYSICAL PLANT

- (a) Multiple Site Unit (With detachment)
- (b) Total acreage: 50 (Little Sand Island, Mobile, AL)
- (c) Number of buildings: 3
- (d) Total square footage: 66,500

(e) <u>Primary Buildings/Structures</u>	<u>Total Sq Ft</u>	<u>Leased Sq Ft</u>	<u>Description Of Use</u>
(1) UCONN Bldg. 23, Groton, CT	58,370	58,370	Office/Lab
(2) UCONN Bldg. 21, Groton, CT	6,105	6,015	Office/Storage
(3) F&STD, Mobile, AL	2,325	2,325	Office/Shop

(f) **Tenant Command(s):** The Coast Guard International Ice Patrol and the Coast Guard Marine Safety Laboratory.

(g) **Unique Equipment/Facility:** The Fire and Safety Test Detachment at Mobile, AL is a full-scale vessel fire test facility.

## CAPABILITY

The R&D Center plans and conducts research projects in areas of greatest potential benefit to the Coast Guard. The Center develops, tests and evaluates techniques, concepts, systems, equipment and materials for possible use in Coast



Guard missions. The R&D Center maintains capabilities necessary to respond to known and anticipated requirements of program managers and keeps abreast of research and development outside the Coast Guard of potential benefit to the service. R&D Center program personnel have both the expertise on, and experience with, the business practices (missions, policies, plans and processes) of the Coast Guard, as well as the knowledge of existing and emerging science and technology. These strengths are used to leverage science and technology within the Coast Guard to solve today's needs and tomorrow's challenges, working towards the ultimate goal of improving performance and saving resources across all Coast Guard missions.

Ongoing Improvement Initiatives:

- Develop and sustain a systematic approach for selection, execution and implementation for all research and development efforts.
- Become an integral part of our customers' businesses and thinking.
- Develop a workforce with skills meeting the needs of the CG today and in the future.
- Partner with other CG labs and other research centers to promote the introduction of new technology into the Coast Guard.
- Communicate a clear, visible and positive corporate identity.
- Develop and sustain an internal leadership system that promotes internal program performance excellence.
- Planned Capital Improvements: Upgrade leased space at the University of Connecticut to improve the habitability of the spaces and improve communications among staff.

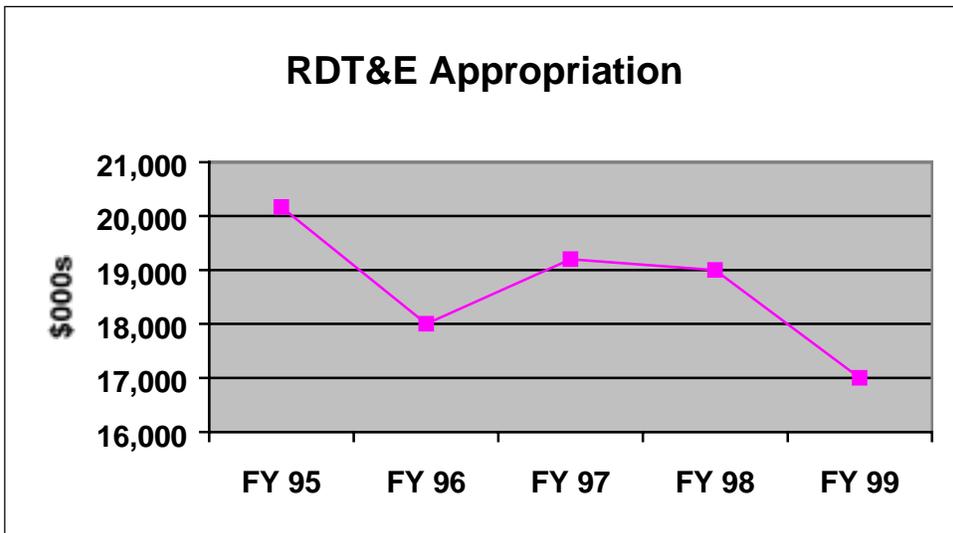
## FUNDING HISTORY

(a) RDT&E Appropriation

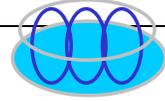
<u>FY</u>	<u>TOTAL APPROPRIATED/ALLOCATED</u>	<u>LEASE ONLY</u>
95	\$20,169,000	\$500,000
96	\$18,000,000	\$550,000
97	\$19,200,000	\$550,000
98	\$19,000,000	\$266,000
99	\$17,000,000	\$272,000

AC&I Improvements & Upgrades by FY (capital improvements >= \$200K): NONE

(b) Annual OE costs related to preserving capability: NONE

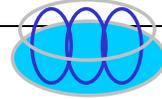


**Note:** Included in each year's appropriation figure are R&D Center lease costs as follows: FY95: \$500K; FY96: \$550K; FY97: \$550K; FY98: \$266K; and FY99: \$277K.



## CURRENT PERSONNEL ALLOWANCE

Military:	31
Civilian	69
TOTAL:	100



## ASSET

TELECOMMUNICATION & INFORMATION SYSTEMS  
COMMAND (TISCOM)  
Alexandria, VA



## MISSION

TISCOM provides telecommunications, electronics, and information systems support to the Coast Guard. The Command is the Coast Guard's lead developer of voice and data communications systems. Building modern digital communication networks and integrating computer technology into the Coast guard's daily routine is the Command's primary responsibility. TISCOM is also the home of the CG Ceremonial Honor Guard which represents the CG at highly visible functions such as full honor ceremonies for visiting heads-of-state and special ceremonies at the Pentagon, Arlington National Cemetery and the White House.

Unit performance goals:

- To develop and deliver cost effective telecommunication and information systems to the Coast Guard by integrating rapidly evolving technologies into Coast Guard business and operational processes.
- Assume the lead in providing and leveraging technology to enable the Coast Guard to meet its strategic performance goals while ensuring all efforts contribute to a communications and computing infrastructure that is well integrated and easily supported.
- Ensure new capabilities are fully integrated and supported, and provide breakthrough performance in both the business and mission areas of the Coast Guard.

The activities at TISCOM support the following Guard Strategic strategic and performance goals:

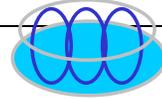
CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S3, S4, S5		M1, M2	C1, C2, C3	N1, N2

## PHYSICAL PLANT

- (a) Single Site Unit
- (b) Total acreage: 200 acres
- (c) Number of building: 35 permanent buildings
- (d) Total square footage: 128,207 sq ft

(e)	Primary Build/Structure	Total Sq Ft	Description Of Use
	(1) Administration Building	11,433	Administration/Dining
	(2) North Lab Building	17,200	Office
	(3) South Lab Building	8,300	Office
	(4) Navigation Center	12,100	Office
	(5) Dawson Hall	25,173	Dormitory
	(6) Drill Facility	9,600	Training Facility

- (f) Tenant Command(s): U.S Coast Guard Navigation Center (NAVCEN)

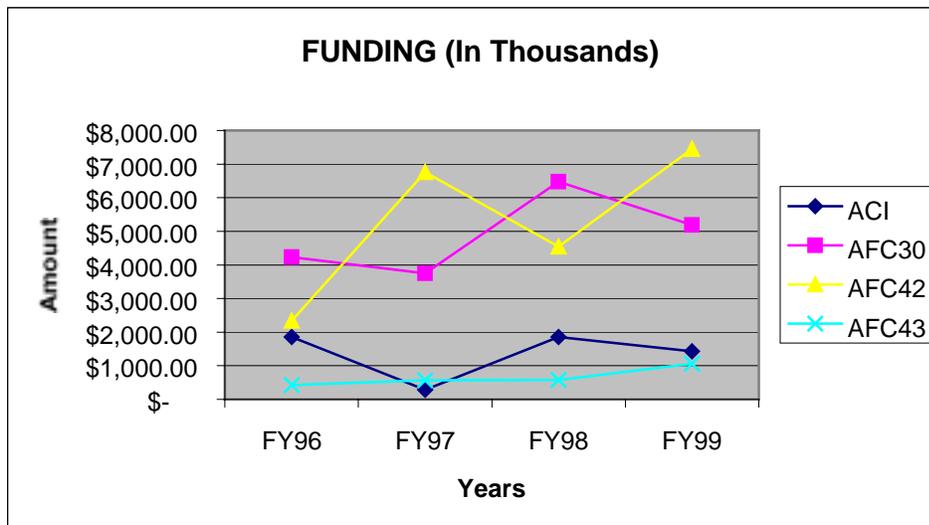


(g) Unique Equipment/Facility: None

## CAPABILITY

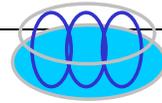
The technical staffs at TISCOM are responsible for managing, procuring and engineering the Coast Guard's voice, data, standard workstation, messaging, and telecommunication systems. Currently TISCOM performs the management, procurement and engineering functions for the following systems: Standard Workstation III (SWIII), semi-automatic message preparation system, FTS2000, the Coast Guard Data Network and others. TISCOM is also facility and configuration manager for Coast Guard communication stations and centers. Special expertise has been developed in the areas of Office Automation, Workstation Radio and Radio Control Systems, Local Area Networks, Wide Area Networks and Automated Information Security.

## FUNDING HISTORY



## CURRENT PERSONNEL ALLOWANCE

Officer:	39
Warrant Officer:	28
Enlisted:	115
GS:	29
WG:	0
Contract:	35
TOTAL:	246



## ASSET

U.S. COAST GUARD YARD  
Baltimore, MD



## MISSION

Provide core industrial support for the Coast Guard. As a full service shipyard the YARD produces products and services ranging from design, construction, and repair of cutters, systems, components, ordnance overhauls, electronics installations and overhauls, manufacturing industrial products and related services. By supporting the fleet the YARD contributes to the CG's Strategic Goals of Safety, Protection of Natural Resources, Mobility, Maritime Security and National Defense.

Unit performance goals:

- **VALUE:** Meet our customer's needs with the maximum value in product and service, on time and at a competitive price. Participate in and continually improve our total quality.
- **RELATIONSHIPS:** Work together with all customers to assure their satisfaction by improving their ability to conduct successful support/operational missions.
- **WORKFORCE:** Promote safety, trust integrity, equality, recognition, and mutual respect.
- **COMMUNITY:** Conduct ourselves in an environmentally safe manner; we will be the environmental protection leader within the shipyard industry. Promote the local communities' awareness and appreciation of the CG YARD and the Coast Guard.

## PHYSICAL PLANT

- (a) Single Site Unit
- (b) Total acreage: 113
- (c) Number of buildings: 95 (23 are assigned to the ELC. 6 are assigned to Activities Baltimore.)
- (d) Total square footage: 977,782 SF (see section (e) for YARD/tenant breakdown.)

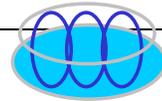
Primary Buildings:

	<u>No. of Bldgs</u>	<u>Total Sq Ft</u>	<u>Leased Sq Ft</u>	<u>Description Of Use</u>
(1)	40	429,004	0	YARD Industrial
(2)	26	161,494	0	YARD Support
(3)	23	339,964	0	ELC
(4)	6	47,320	0	Activities Baltimore
Totals	95	977,782 SF		

- (e) Tenant Command(s): ELC, Activities Baltimore, CGC JAMES RANKIN, CGC SLEDGE, ANT Sledge, Station Curtis Bay, ESD Curtis Bay, NESU MAT Detachment Baltimore.
- (f) Unique Equipment/Facility: Land Based Ship Handling Facility

## CAPABILITY

The YARD's capabilities include: construction, repair, retrofit, and renovation of cutters, boats, and various aids to navigation; manufacture of unique Coast Guard items; essential engineering, logistics and technical information support; industrial planning and estimating support; industrial experience to the naval engineering community; casualty response support to the fleet; design and production engineering; electronic equipment overhauls; establishing and maintaining component repairable production lines; and prototype development. In addition, the YARD is certified by the Naval Sea Systems Command as a Limited Repair Facility for Navy-owned ordnance. The YARD also serves as host facility for Coast Guard units: Engineering Logistics Center, Activities Baltimore, Station Curtis Bay, two Law Enforcement Detachments, Reserve Group Baltimore, and the Cutters JAMES RANKIN and SLEDGE



The YARD is the largest industrial activity in the Coast Guard. As the service's sole shipbuilding facility and large caliber Ordnance and Limited Repair Facility, it is an essential part of the Coast Guard's core industrial base and fleet support operations. The YARD distinguished itself by becoming the first organization in the United States Government and the first public shipyard in America to achieve ISO 9001 certification. This designation coupled with the YARD's 1997 designation as a National Performance Review "Reinvention Laboratory" demonstrates support of the President's directive to cut government red tape, focus on results, and develop alternatives to burdensome Federal regulations.

The YARD also was the recipient of the Commandant's Quality Award in 1993 & 1996 and won the Maryland Senate Productivity Award in 1996. A YARD process improvement team earned Vice President Gore's "Hammer Award" in 1997. The White House "Closing the Circle Award" was presented to the YARD in 1997. This honor is given to federal agencies for outstanding achievements in pollution prevention and environmental protection and demonstrates the YARD's responsiveness to emerging environmental challenges. The YARD is considered a technical expert on ISO 9001 /TQM and acts as an advisor and trainer to Army, Navy, Air Force and other government agencies (OGA's) in this area. The partnering and sharing of lessons learned and ISO certification strategies with OGA's have improved our interoperability with them. These accomplishments demonstrate why the YARD is considered a Center of Excellence in the Quality field and have generated favorable public relations for the YARD and the Coast Guard.

The YARD is a well equipped, environmentally conscious, modern shipyard prepared to address the repair, maintenance, and new construction needs of the Coast Guard's fleet well into the 21<sup>st</sup> century. Ongoing improvements include an upgraded/renovated ordnance facility, an expanded machine shop with CNC lathes, a Dynamometer for main propulsion diesel engines and a 5300 ton shiplift that unlike floating dry docks, utilizes an environmentally protective upland industrial work areas. This shiplift allows the YARD to have lower life cycle operating and maintenance cost for dry-docking operations. The YARD has also modernized it's management and support systems employing automated tools such as computer aided design, computer numeric controlled cutting and lofting as well as a new financial management system and a computerized project management/ scheduling system. With these improvements the YARD is able to provide superior service support to the fleet.

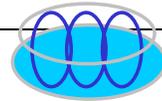
With the delivery of the last 210' Major Maintenance Availability in 1998 the YARD brought to closure it's largest single project (it accounted for 75% of the YARD's entire operational budget for the last 10 years). A major transition to a more diversified workload and increased emphasis on supporting broader fleet engineering and logistics needs is transforming the way the YARD does business.

Renovations, new construction or other AC&I projects will continue to be candidate projects for assignment to the YARD. The YARD stands ready to continue to meet the increasing engineering, technical and industrial needs of the Engineering Logistics Center and other Coast Guard customers.

## FUNDING HISTORY

(a) AC&I Improvements & Upgrades by FY (capital improvements >= \$200K)

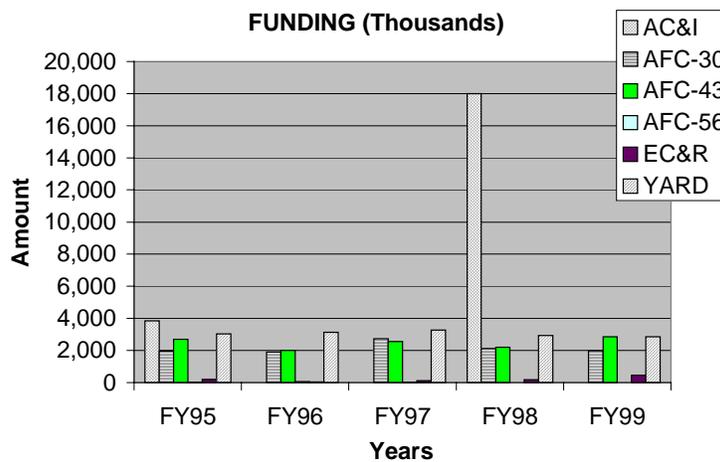
<u>FY*</u>	<u>UPGRADES/IMPROVEMENT</u>	<u>APPROPRIATED FUNDING</u> \$000K
85	Construct Sandblast Facility	1,800
88	City Sewer Connection	1,200
88	Electrical Shore Ties	327
90	MK75 Ordnance Facility	1,200
92	Paint Shop	252
92	Materials Handling Bldg	359
94	Machine Shop Upgrade	3,700
94	Acid Cleaning Bldg	600
94	New Flammable Storage Bldg	1,300
95	Portal Crane Replacement	3,850
98	Land Based Ship Handling Fac	18,000
*FY project was completed		



(b) Annual OE costs related to preserving capability:

	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>
AFC-43:	\$2687	\$2075	\$2560	\$2200	\$2849
AFC-30:	\$1959	\$1914	\$2723	\$2121	\$1978
EC&R:	\$191	\$32	\$109	\$174	\$443
* YARD Fund:	\$3032	\$3126	\$2934	\$2844	\$2844

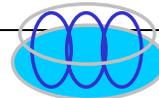
\* Only includes funding in support of grounds, utilities, powerhouse, vehicles, buildings and Facilities Management Staff. YARD fund is a revolving fund account that is reimbursed only by funds collected for providing goods and/or services.



## CURRENT PERSONNEL ALLOWANCE

Officer:	19
Warrant Officer:	9
Enlisted:	65
Reservists:	19
GS:	166
WG: Permanent	343
WG: Temporary	94
Contract:	0
TOTAL:	715

7/31 YARD Personnel Status Report indicates 758 total YARD positions/billets authorized: 666 Civilians, 92 Military (excluding reservists). 715 billets/positions are currently filled.



## ASSET

U. S. COAST GUARD ACADEMY  
New London, CT

## MISSION

The Academy's mission is to develop leaders of tomorrow, including cadets, officer candidates, and students (via Leadership Development Center).

## PHYSICAL PLANT

The Academy is comprised of approximately 103 acres of land, and about 1.3 million square feet of building space. Major buildings include:

- Chase Hall (cadet barracks)
- Hamilton Hall (administration)
- Satterlee Hall (academics)
- Smith Hall (academics)
- McAllister Hall (academics)
- Michel Hall (medical clinic)
- Leamy Hall (multi-purpose rec. bldg.)
- Munro Hall (enlisted barracks)
- Waesche Hall (library/museum)
- Pine Hall (waterfront)
- Roland/Billard Halls (gymnasium)
- Yeaton Hall (LDC)
- Chapel, Visitors' Center, Rowing Center, Sailing Center

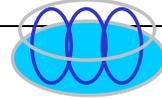
## CAPABILITY

Support capabilities are required for 850 cadets, 500 faculty/staff, 90 officer candidates & 160 CPOs (initial LDC estimates) and other transient students.

This includes support in many different areas:

- Facilities support
- Administrative support
- Berthing & Food Service support
- Waterfront support
- Academic support
- Military Training support

In order to preserve the Academy's unique facilities, preservation of capital assets is governed by adequate resources in facilities maintenance, rebuilding, and new construction. Recent LDC construction efforts are significant, but are not by themselves the only requirement. Sufficient AC&I, AFC-43, and AFC-30 funds are needed, along with staffing levels consistent with requirements. A Master Plan was developed in 1993, updated in 1995, and to be updated again in the near future to identify long-term capital asset requirements.



## FUNDING HISTORY

Capital construction has occurred over several decades, with initial construction in the 1920s, and an additional major surge in the 1960s and 1970s. Since that time, little capital improvement has occurred other than the McAllister Hall addition in 1983, and the Child Development Center in 1994. As part of the LDC establishment here at the Academy, AC&I construction has become active once again.

### AC&I:

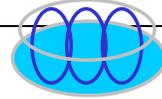
Yeaton Hall Renovation	(\$2.5M in FY96)
Chase Galley/Wardroom Renovation	(\$4M in FY96)
Roland Hall Gym Rehab	(\$4M in FY96)
Munro Hall Renovation	(\$5.8M in FY98)
Satterlee Hall Rehab	(\$3.8M in FY99)

### AFC-43:

\$2.5M received in FY97, although historically less than in the past.

## CURRENT PERSONNEL ALLOWANCE

Officer	146
Warrant	14
WG	45
Enlisted	233
Reserves	8
G-S	123
Total	569



## ASSET

### HOUSING

Locations: Various

## MISSION(S)

Provide adequate cost-effective housing for Coast Guard personnel and their dependents in geographic areas with a shortage of adequate or affordable community based housing.

## PHYSICAL PLANT

- (a) Multiple Site Unit                      159 sites with 5112 units
- (b) Number of housing units:            5112
- (c) Total square footage: approx.    7,150,000 sq ft

## CAPABILITY

- (a) 5112 units of CG owned housing, 3003 units of family and unaccompanied personnel leased housing combined with approx 980 units of housing leased through ISSA support approx 7500 (approx 30 percent of families) CG families and 1200 unaccompanied members through the US and it's possessions.
- (b) Demand for government provided housing will always exceed supply. The difficult task is to determine the correct mix of community based and government provided units. There is no waiting list for leased housing and only minor waits for CG owned in most locations. Areas such as Cape Cod, Alameda, Borinquen and New York actually have excess housing.
- (c) An assessment of all major housing sites will be conducted in FY-00 to determine housing needs, cost and availability to objectively identify housing needs.
- (d) Study and potential use of the Housing Authorities may provide an opportunity to recapitalize selected housing units, off line of the budget.
- (e) Over 2,000 units of owned housing exceed 30 years of age. Many of these units have backlogs of deferred maintenance, including environmental findings and will be considered for divestiture or rehabilitation as part of the owned housing needs assessment.
- (f) Remediation of identified environmental findings continues to be a concern. The age of most quarters and the presence of lead paint and asbestos presents a danger to occupants, especially young children.
- (g) Housing units recently built provide increase comfort, size and amenities along with the planned development of housing as a community versus houses as a commodity.

## FUNDING HISTORY

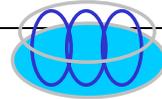
- (a) AC&I Appropriation (table format)

AC&I Facility Project Funds by FY (From digging the hole to ribbon cutting)

<u>FY</u>	<u>APPROPRIATED/ALLOCATED</u>
99	\$9M
98	\$15.9M
97	\$12M
96	\$20.8M

- (b) Average annual OE costs related to preserving capability:  
 Budgeted Costs:  
     AFC-43: \$14.8M  
     AFC-30: \$31.5M

- (c) Average annual OE costs related to Leased Housing capability:

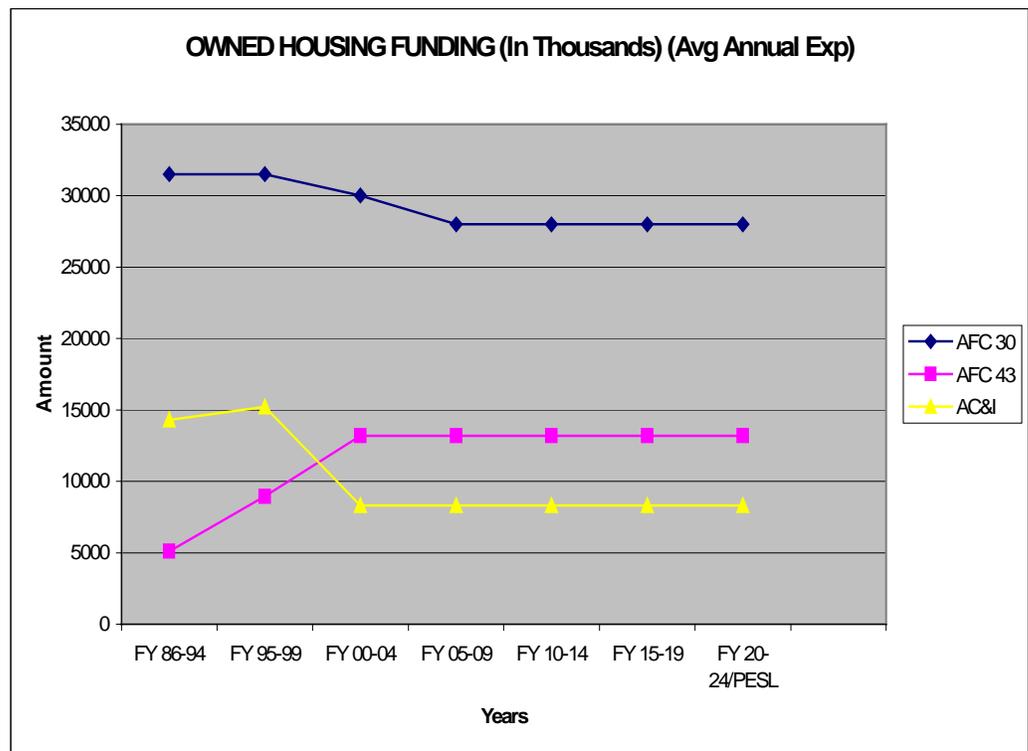


Budgeted Costs:

- FY-98: \$56.3M
- FY-99: \$48.3M
- FY-00: \$39.8M
- FY-01: \$31.3M

(c) AFC-30: \$31.5M Includes Routine O&M maintenance funding, water Sewer trash and energy all at approved budget model rates.

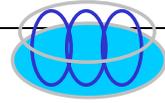
	FY 86-94	FY 95-99	FY 00-04	FY 05-09	FY 10-14	FY 15-19	FY 20-24/PESL
AFC 30	31500	31500	30000	28000	28000	28000	28000
AFC 43	5100	8940	13200	13200	13200	13200	13200
AC&I	14300	15200	8300	8300	8300	8300	8300

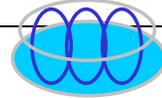


## CURRENT PERSONNEL ALLOWANCE

Taken from PALs accounting for full time FTE actually assigned to Housing Programs. Does not include FTE involved in housing maintenance when that maintenance staff is not spelled out on the PAL. (e.g. Activities NY and Air Station Borinquen.)

Officer:	2
Warrant Officer:	18
Enlisted:	268
GS:	52
WG:	23
Contract:	
TOTAL:	363





## ASSET

TRAINING CENTER YORKTOWN  
Yorktown, VA

## MISSION(S)

Improve Coast Guard workforce performance. Facilitate accomplishment of Coast Guard missions by providing training for today and performance solutions for tomorrow.

Unit Performance Goals:

- Develop a more responsive and flexible performance and training system.
- Provide training and a student environment which increases learning and performance at optimal cost.
- Realize an organizational climate which enables our people to achieve their full potential.
- Facilitate an effective link between doctrine and training which enhances mission performance.
- Expand our influence on the world's maritime services in support of national security objectives.

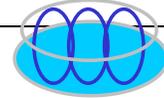


By maintaining a flexible, responsive training system that delivers the right training to the right people at the right time, TC Yorktown ensures our CG workforce is ready to perform effectively in all mission areas to accomplish the CG's overall strategic and performance goals.

## PHYSICAL PLANT

- (a) Single Unit with two detachments:  
PSU TRADET, Camp Lejeune, NC  
EMDDET, Atlanta, GA
- (b) Total acreage: 154
- (c) Number of building: 40
- (d) Total square footage: 735K

(e)	<u>Primary Build/Structure</u>	<u>Total Sq Ft</u>	<u>Leased Sq Ft</u>	<u>Description Of Use</u>
	(1) Bldg A/XO's Qtrs	3,449	0	Housing
	(2) Bldg 44/CO's Qtrs	3,290	0	Housing
	(3) Bldg 46/Korean Hall	10,996	0	CGES
	(4) Bldg 53/Gym	17,602	0	Rec/Gym/Pool
	(5) Bldg 62/Maint. Shop	15,903	0	Admin/Support
	(6) Bldg 76/Gate House	91	0	Admin/Support
	(7) Bldg 99/ Swimming Pool	11,114	0	Rec/Gym/Pool
	(8) Bldg 107/Wormley offices	1,145	0	Training
	(9) Bldg 156/Roads & Grounds	5,679	0	Admin/Support
	(10) Bldg 159/Carpenter Shop	6,000	0	Admin/Support
	(11) Bldg 162/Auto Hobby Shop	4,564	0	MWR
	(12) Bldg 166/Washington Auditorium	3,318	0	Admin/Support
	(13) Bldg 200/Smoke House	1,120	0	Training
	(14) Bldg 203/Fire Fighting School	4,870	0	Training
	(15) Bldg 205/Campground toilets	330	0	MWR
	(16) Bldg 206/Martin Hall	20,035	0	Training
	(17) Bldg 207/Steuben Hall	61,450	0	Berthing
	(18) Bldg 208/LincolnHall	61,450	0	Berthing
	(19) Bldg 209/CG Dining Facility	23,637	0	Galley
	(20) Bldg 212/Security/ITD	5,988	0	Admin/Support (2,395) Training (3,593)
	(21) Bldg 217/Lafayette Hall	107,760	0	Berthing
	(22) Bldg 221/Hamilton Hall	64,278	0	Training



(23) Bldg 222/Elbert Hall	28,521	0	Training
(24) Bldg 226/Butler Hall	720	0	Training
(25) Bldg 229/Canfield Hall	60,295	0	Training
(26) Bldg 231/Warehouse	14,672	0	Admin/Support
(27) Bldg 234/Sr Student Dining Facility	8,456	0	Galley/MWR
(28) Bldg 235/Cain Hall	53,447	0	Berthing
(29) Bldg 236/Taylor Hall	50,183	0	Training
(30) Bldg 238/Gas Station-Mariners Mart	288	0	CGES
(31) Bldg 240/CAT Outboard	6,750	0	Training
(32) Bldg 241/Boat Maint. Shop	2,718	0	Admin/Support
(33) Bldg 245/MLE Boarding Platform	555	0	Training
(34) Bldg 246/Craik Clinic	13,414	0	Medical
(35) Bldg 260/Thayer Hall	19,360	0	Admin/Support
(36) Bldg 261/Olde Yorke Chapel	5,431	0	Admin/Support
(37) Bldg 262/MLE Boarding Platform	555	0	Training
(38) Bldg 266/DC Wet Trainer	413	0	Training
(39) Bldg 268/UTB Systems Center	5,211	0	Training
(40) Bldg 274/Small Arms Instruction	1,288	0	Training

## (f) Tenant Command(s):

None at present. Anticipate TACLET North during FY00 and possibly CG Institute and TQC.

(g) Unique Equipment/Facility: **Note: Does not include secondary buildings/structures such as parking lots, storage sheds, garages, storage tanks etc.**

The PSU TRADET, part of RTC Yorktown's Training Division, is located at Camp Lejeune, North Carolina. The PSU TRADET serves as a "Center of Excellence" (COE) for the Port Security Unit (PSU) program. As a COE, PSU TRADET is responsible for providing performance consulting services and developing training/non-training interventions to assist the PSU Program customers in maintaining and improving the readiness of the PSUs to meet their military mission requirements. The PSU has 13 active duty billets (4 officer, 9 enlisted) and 25 reserve billets (3 officer, 22 enlisted).

The Electronic Media Development Detachment (EMDDET), a part of the Performance Technology Center, is located at Fort Gillem, Forest Park, Georgia. EMDDET's function is to produce public affairs, training and performance improvement media. They have already produced several well-received videos on a wide range of topics. They produce media that supports training and performance improvement products. The EMDDET has two active duty billets (1 officer, 1 enlisted) and 11 reserve billets (1 officer, 10 enlisted).

## CAPABILITY

## (a) Describe the products and/or services the unit currently provides to the Coast Guard or public:

Resident training. RTC trains over 7,000 students annually in the form of Class "A" Schools for approximately one-half of the CG's enlisted ratings and Class "C" Schools for all CG operational programs.

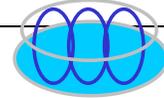
Nonresident training. RTC produces over 40 correspondence courses and associated servicewide exams for at least 10,000 CG personnel annually. Additionally, RTC instructors travel throughout the country to provide exportable training to about 2,000 CG personnel annually.

International training. Students all over the world come to RTC each year to attend the prestigious International Maritime Officers' Course (IMOC). RTC's International Training Division also travels to 50-60 different countries each year providing training in over 100 missions.

Standardization. RTC's UTB Systems Center visits every CG station once every two years to inspect the condition of the CG's entire inventory of 41-foot utility boats for compliance with standards.

Performance Analysis and Design. RTC's Performance Technology Center analyzes CG performance problems to identify the most relevant causes and the most effective and efficient performance improvement intervention.

## (b) Compare the unit's current ability to deliver required products and/or services to the Coast Guard/public with current demand for the products or services. (current demand):



While RTC remains an extremely capable unit, demand for training far exceeds RTC's ability to provide training and performance support. Three relevant examples include the increased demand for BM "A" School quotas, increased need for Search and Rescue School quotas, and a need to increase the level of training provided in law enforcement/boating safety to state and local police. In each of these examples, personnel, financial, and physical resources do not exist in sufficient quantities to meet demand.

- (c) Identify any gaps between the unit's ability to deliver products and services to the Coast Guard and the public that need to be addressed in the next 2-5 years. (projected future demand):

Some of the gaps which exist are listed in paragraph (d) below. In addition, RTC is in major need of a gym upgrade. The next 2-5 years will bring increased demand as a result of increases in law enforcement training personnel. The RTC gym is not currently air-conditioned which places dangerous physical demands on both trainers and trainees.

If more training becomes necessary (as is projected) in small boat handling, additional small boats will be needed, requiring modifications to existing pier space.

It is only natural to expect that with the growth of technology, our existing infrastructure will need constant upgrading and updating to keep pace with advances in training technology. RTC's capability to export training via Interactive Video Tele-training and across the Internet are severely limited due to budgetary constraints. While it is likely that increased use of technology could improve training and reduce costs, RTC's inability to invest in recent advances severely limits the potential value of technology.

- (d) Identify any ongoing or planned initiatives relative to maintaining needed capability, e.g., modernization, improvement or upgrades to business processes, equipment, systems or facilities.

Severe infrastructure problems exist at RTC Yorktown specifically: roof replacements, air conditioning systems, road pavement, domestic water system, and rehab of classroom and support spaces.

Project backlog list includes the following roof replacements all of which must occur over the next 3-5 years:

- Enlisted Dining Facility, \$310K
- Steuben Hall, \$245K
- Taylor Hall, \$209K
- Canfield Hall, \$150K
- Washington Auditorium, \$100K
- CAT Outboard, \$100K
- Firing Range, \$91K
- Gymnasium, \$115K

Project Backlog list includes the following air conditioning replacements all of which must occur over the next 3 years:

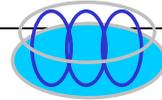
- Steuben, Lincoln, Enlisted Dining Facility, \$850K
- Elbert Hall, \$75K
- Various smaller units, \$60K

Project Backlog list includes 3 separate phases of road work totaling \$750K.

Project Backlog list includes installation of an additional domestic water supply line (AC&I L75-9001), \$1,400K; and 2 projects for replacing the water supply distribution system, \$800K. Over half of the potable water distribution piping is over 50 years old and needs replacing, due to its condition and the existence of lead and oakum pipe joints. These projects are necessary inadequate firefighting capacity at RTC Yorktown. There is currently insufficient water supply or pressure to fight a fire.

Several interior spaces are in desperate need of rehab. It has become increasingly difficult to conduct or support training due to old worn out spaces, inefficient layout of spaces, and insufficient infrastructure to support the needs of a modern classrooms.

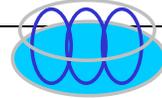
- Steuben Hall Rehab (barracks and office space), \$2,100K
- Martin Hall (training), \$600K
- Elbert Hall (training), \$997K



- Taylor Hall (training), \$750K
- Maintenance Building #62 (support), \$800K
- Lafayette Hall (barracks), \$750K
- Elbert Hall CAT/ MTU engines (training), \$395K Minor AC&I

(e) (PESL) based on standard service life projections.

BUILDING NUMBER	NAME	PESL (YEARS)
A	XO's Qtrs	12
44	CO's Qtrs	12
46	Korean Hall	18
53	Gym	6
62	Maint Shop	5
76	Gate House	11
99	Swimming Pool	6
107	Wormley Offices	0
156	Roads & Grnds Stor	10
159	Carpenter Shop	10
162	Auto Hobby Shop	19
166	Washington Aud	18
200	Smoke House	0
203	Fire Figthing School	8
205	Campground Toilets	16
206	Martin Hall	10
207	Steuben Hall	0
208	Lincoln Hall	20
209	CG Dining Fac	21
212	Security/ ITD	12
217	Lafayette Hall	25
221	Hamilton Hall	12
222	Elbert Hall	8
226	Butler Hall	4
229	Canfield Hall	10
231	Warehouse	10
234	Sr. Student Dining Facility	11
235	Cain Hall	11
236	Taylor Hall	11
238	Gas Station	16
240	CAT Outboard	12
241	Boat Maint Shop	11
245	MLE Boarding Plat	13
246	Craik Clinic	14
260	Thayer Hall	16
261	Olde York Chapel	19
262	MLE Boarding Plat	13
266	DC Wet Trainer	15
268	UTB System Ctr	15
274	Sml Arms Instruct	19



- (e) Highlight any problem areas, technology issues, etc.

This information is included in (d), above. Additionally, we need to assess our computer classroom requirements base-wide, develop a five-year plan and takes steps to implement same. The classrooms should be grouped together in a single structure as much as possible in order take full advantage of the economy of scale.

RTC's telephone system, owned by the Coast Guard, is connected through a system of underground ducts and manholes carrying the distribution cables (copper). Although recently upgraded for Y2K compatibility, the 10-year old main switch relies heavily on out dated technology. While it has the capacity for further expansion, it has been determined that the switch and essentially all the aged copper distribution system that runs throughout the base requires replacement. A \$270K AFC-42 funded project request was forwarded for FY00 funding. Approval pends.

- (f) For the newest assets, discuss improvements over old assets in terms of costs and capability/capacity

Other than the recently completed Firefighting Trainer for the Engineering & Weapons Schools, there has been no new construction at RTC Yorktown since the FY94 UTB Systems Center. The new Firefighter Trainer at the DC School replaces a 38-year old facility that can no longer be maintained. The new trainer provides state-of-the-art technology, operates on clean and efficient natural gas (vice burning hay bales), in an extremely realistic setting.

## FUNDING HISTORY

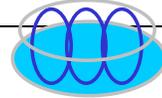
- (a) AC&I Appropriation (table format)

### AC&I Facility Project Funds by FY (From digging the hole to ribbon cutting)

<u>FY</u>	<u>APPROPRIATED/ALLOCATED</u>
82	\$7,334,085
83	\$5,483,893
84	\$458,968
85	\$480,337
86	\$1,628,000
89	\$2,023,951
91	\$739,617
92	\$857,000
98	\$950,000

### AC&I Improvements & Upgrades by FY (capital improvements >= \$200K)

<u>FY</u>	<u>UPGRADES/IMPROVEMENT</u>	<u>APPROPRIATED FUNDING</u>
82	Construct Canfield Hall	\$3,750,480
82	Construct Taylor Hall	\$3,583,605
83	Construct Warehouse	\$702,000
83	Construct Senior Student Dining Facility & Cain Hall	\$4,781,893
84	Construct Wormley Creek Shops	\$458,968
85	Construct Cat/Outboard Bldg.	\$480,337
86	Construct Craik Clinic	\$1,628,000
89	Construct Thayer Hall	\$2,023,951
91	Construct Olde Yorke Chapel	\$739,617
92	Construct UTB Systems Center	\$857,000
98	Construct Fire Fighting Training Facility	\$950,000



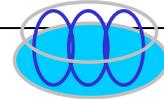
- (b) Annual OE costs related to preserving capability:  
Budgeted Costs:

<u>FY</u>	<u>AFC 30</u>	<u>AFC 43</u>
94	\$7,953,034	\$2,645,000
95	\$7,504,637	\$3,986,000
96	\$7,216,768	\$1,985,000
97	\$7,487,895	\$3,215,000
98	\$7,622,000	\$1,765,000
99	\$6,160,962	\$1,844,000
AVG	\$7,198,452	\$2,573,333

- (c) Provide graphs illustrating (1) funding/investment history of the unit(s) and (2) Upgrade/Improvement costs related to maintaining the facility over the service life of the asset. For classes, average the amounts across individual units. For major shore facilities, look at the total facility. Plot from pre-acquisition to PESL point.

## CURRENT PERSONNEL ALLOWANCE

Officer:	89
Warrant Officer:	16
Enlisted:	371*
GS:	51
WG:	0
Contract:	102
TOTAL:	629
* does not include 25 Reserve billets at the PSU TRADET which <u>should</u> be on the RTC RPAL instead of the RTC PAL.	



## ASSET

TRAINING CENTER CAPE MAY  
Cape May, NJ

## MISSION(S)

Train and graduate motivated entry level enlisted men and women ready and able to serve with a sense of pride and commitment in the world's premier maritime service, and to proudly provide quality services to our people and others throughout the Coast Guard.



### Unit Performance Goals:

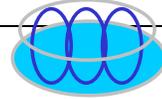
1. Exceed the diversity of the Service by 20% in Training Division
2. Provide underway training to all recruits before graduating
3. Create Preventative Maintenance System (PMS) for all critical systems within facilities
4. Increase customer/field satisfaction with graduates by 5%
5. Increase customer satisfaction with all key Training Center services and processes by 5%
6. Create a state of the art training facility
7. Provide the finest role models for recruits in training by ensuring that the Company Commanders assigned are selected from the top 10% of enlisted personnel in the Coast Guard
8. Provide leadership training to all permanent party military and civilian supervisors
9. Maintain and improve the infrastructure of the Training Center resulting in an overall condition at least equal to that of other major Coast Guard training commands

As stated in the current Human Resources Business Plan, "It will be the Human Resources of the Service that are performing the missions that influence the outcomes of our Coast Guard organization." Apprentice Training, with a throughput increasing from 3,900 to 5,050 a year, is our largest Human Resources input and people are our "most important" resource.

## PHYSICAL PLANT

- (a) Single Site Unit
- (b) Total acreage: 453
- (c) Number of building: 266
- (d) Total square footage: 940,000

(e)	<u>Primary Build/Structure</u>	<u>Total Sq Ft</u>	<u>Leased Sq Ft</u>	<u>Description Of Use</u>
	(1) Owned Housing	246,217		Housing
	(2) CGES Functions	50,347		Warehouse and retail space
	(3) Clubs		29,055	All hands clubs and storage
	(4) MWR Functions	18,945		Boat house, Day Care Center, etc.
	(5) Facilities Eng. Buildings	63,911		Various shops and storage
	(6) Training Functions	214,681		Barracks and classrooms for recruit training
	(7) Admin Support	22,406		Security and Admin. Buildings
	(8) Medical Support	46,171		Dispensary
	(9) Other support	115,665		Gym, Chapel, galley, Auditorium
	(10) Tenants	59,040		Facilities used by tenants
	(11) UPH Berthing	46,010		Barracks (Permanent Party)
	(12) Air Station Hanger	25,028		Former AIRSTA Cape May hangar



(f) Tenants:

- (1) USCGC VIGOROUS
- (2) USCGC HORNBEAM
- (3) USCGC MAKO
- (4) USCGC POINT HIGHLAND
- (5) USCGC POINT BATAN
- (6) Station Cape May
- (7) Aids to Navigation Team Cape May
- (8) Industrial Support Detachment
- (9) Electronic Support Detachment
- (10) CG Exchange
- (11) Uniform Distribution Center
- (12) Coast Guard Investigative Service
- (13) Veterans Administration Clinic
- (14) Mid-Atlantic Worklife Staff

Support provided through Memorandum of Understanding (MOU) to:

- (1) Loran Support Unit Wildwood

## CAPABILITY

- (a) The Training Center is currently staffed to train 3900 active duty and reserve recruits per year through a variety of basic indoctrination programs. The Training Center is also staffed to meet the current support service requirements of 1,300 active duty and reserve personnel in the Southern New Jersey area as well as their dependents.
- (b) The current demand for new recruits is approaching 5,000 per year while our personnel allowance list staffing capacity is 3,900. The gap between our current staffing and the staffing requirements needed to support the increase in training volume is expected to continue for the next 2-5 years. Currently we have been supported with temporary and reserve billets to “fill” the staffing gap. RCPs have been submitted for OPSTAGE and Congressional funding support.
- (c) A new recruit curriculum is being developed to implement the findings of the Enlisted Career Development Plan. Additionally, numerous RCPs have been submitted for OPSTAGE and Congressional funding to support more facilities in support of the new curriculum.
- (d) There is no projected end of service life for Training Center Cape May.

## FUNDING HISTORY

- (a) AC&I Improvements & Upgrades by FY (capital improvements >= \$200K)

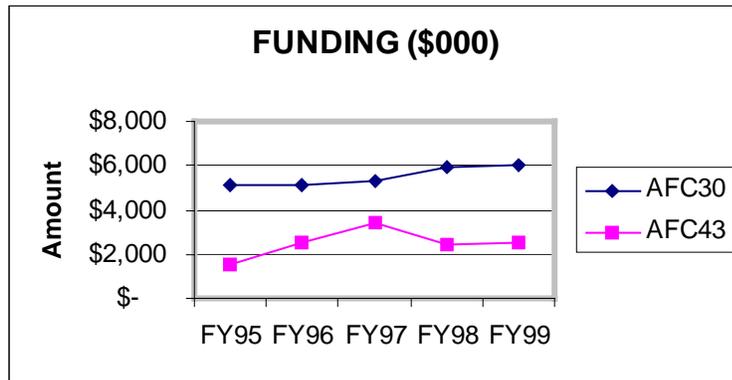
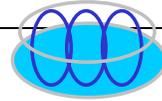
<u>FY</u>	<u>UPGRADES/IMPROVEMENT</u>	<u>APPROPRIATED FUNDING</u>
94	Enlarge Child Development Center	\$2,000K
95	Install Bullet Trap	\$ 474K
95	UPH Renovation	\$2,877K
96	Reconfigure Recruit Barracks	\$2,400K
96	Design Recruit Barracks HVAC	\$ 750K

- (b) Annual OE costs related to preserving capability:

Budgeted Costs:

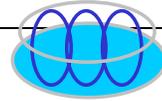
- AFC-43: \$2.1 Million
- AFC-30: \$5.8 Million

- (c) Recurring AFC 30 and AFC 43 funding (including funding from the AFC43 majors program)..



## CURRENT PERSONNEL ALLOWANCE

Officer:	34
Warrant Officer:	9
Enlisted:	261
GS:	35
WG:	16
Contract:	60
<b>TOTAL:</b>	<b>415</b>



## ASSET

TRAINING CENTER PETALUMA  
Petaluma, CA



## MISSION(S)

To improve performance on the job by providing basic rating and advanced specialty instruction to active duty and reserve personnel.

Unit Performance Goals:

1. To maintain a strong data-driven linkage between improved performance in the field and our interventions.
2. To have an environment that enhances our ability to do our core work.
3. Our workforce will have the skills and knowledge to be effective on the job; striving to become lifelong learners able to adapt to a rapidly changing Coast Guard.
4. To provide the same or higher level of service for less money each year.
5. Our decisions will be based on strong relationships with, and understanding of, our customer needs.

Unit performance goals are designed to ensure that we most efficiently and effectively provide individuals with the knowledge, skills and abilities to do their jobs at operating units. These goals directly relate to individual performance on the job and in the field. This individual performance is either directly or indirectly related to accomplishment of all CG Strategic & Performance Goals.

## PHYSICAL PLANT

- (a) Multiple Site Unit
- (b) Total acreage: 804
- (c) Number of building: 136
- (d) Total square footage: 776,759 GSF

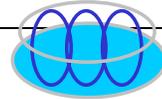
(e)	<u>Primary Build/Structure</u>	<u>Total Sq Ft</u>	<u>Leased Sq Ft</u>	<u>Description Of Use</u>
(1)	Bauer Bldg. (544)	96,534		Electronics Training
(2)	Juliet Nichols Bldg. (543)	59,660		Academic Instruction
(3)	Horsley Hall (551)	72,954		Student Barracks
(4)	Steadman Hall (550)	56,694		Student Barracks
(5)	Harrison Hall (141)	23,696		Senior Student Qtrs
(6)	Haley Hall (560)	20,195		Student Dining Facility
(7)	Medical Clinic (225)	15,172		Medical/Dental Clinic

(f) Tenant Command(s): CG Navigation Center West; CG District 11 Small Arms Firing Range; CG Chief Petty Officer Academy West; CG Electronics Support Detachment

(g) Unique Equipment/Facility: Small Arms Firing Range; Sewage Treatment Plant

## CAPABILITY

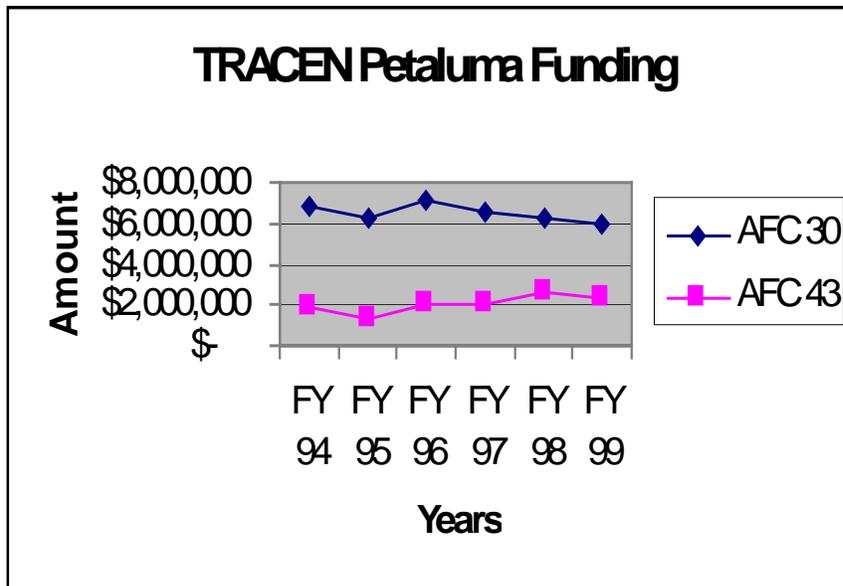
- a. Conduct entry level skills training (Class "A") for Coast Guard personnel serving as Electronic Technicians, Food Service Specialists, Health Service Technicians, Health Service Dental Technicians, Storekeepers, Telecommunications Specialists, Telephone Technicians, and Yeomen.
- b. Conduct advanced skills training (Class "C") for Coast Guard personnel serving in the Electronic Technician, Food Service Specialist, Storekeeper, Telecommunications Specialist, and Telephone Technician fields.



- c. Conduct specialized skills training and professional development for Coast Guard personnel including the Chief Petty Officer's Academy West and the Boarding Team Member, Emergency Medical Technician, and Instructional Systems Schools.
- d. Conduct Leadership and Management Training for "A" School students.
- e. Consult with program and rating managers using human performance technology methodologies to ensure training programs are appropriate, current, and effective.
- f. Develop, maintain, and prepare camera-ready copies of assigned correspondence courses, end of course tests, and Service Wide Exams with a staff of rating information managers for the Electronic Technician, Food Service Specialist, Health Service Technician, Storekeeper, Telecommunications Specialist, Telephone Technician, and Yeoman ratings.

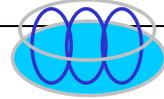
## FUNDING HISTORY

- (a) AC&I Appropriation: We have not received any AC&I Funding in the past nine years.
- (b) Average annual OE costs related to preserving capability:  
 Budgeted Costs:  
 AFC-43: \$2,278,000  
 AFC-30: \$6,035,983
- (c) Provide graphs illustrating (1) funding/investment history of the unit(s) and (2) Upgrade/Improvement costs related to maintaining the facility over the service life of the asset. For classes, average the amounts across individual units. For major shore facilities, look at the total facility. Plot from pre-acquisition to PESL point.



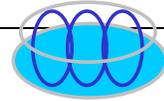
NOTE:

- a) In FY 99, we received \$350,000 in AFC 57 for Medical Support of TRACEN's Clinic.
- b) We receive a small amount of AFC 56 funding to support training of TRACEN Staff (Total of \$18,000 in FY99).
- c) We received non-recurring AFC 42 funding in the past, but have not received any AFC 42 since FY96 (\$27,400).



## CURRENT PERSONNEL ALLOWANCE

Officer:	22
Warrant Officer:	7
Enlisted:	264
GS:	52
WG:	11
Contract:	4
TOTAL:	360



## ASSET

USCG AVIATION TECHNICAL TRAINING CENTER

Elizabeth City, NC



## MISSION

Develop and provide rating and advanced specialty skills for Coast Guard aviation personnel through resident and nonresident training, testing, and other performance improvement tools. Using internal and external evaluations, ATTC continually updates course curriculums to insure that the material used to support instruction is relevant and reflects current maintenance practices used at Coast Guard Air Stations. Additionally, ATTC leads in solving job related performance problems or developing training for newly acquired equipment. Working closely with Program and Training Managers, ATTC serves to maintain critical and cost effective training for the CG aviation community.

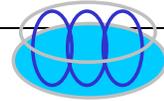
## PHYSICAL PLANT

The Aviation Technical Training Center is a tenant command at CG Support Center Elizabeth City, NC, located three miles south of Elizabeth City in northeastern North Carolina. The Training Center is comprised of three buildings adjacently situated near the main entrance to the Support Center. The support center is in a rural region on 754 acres that abut the Pasquotank River. ATTC relies on the support services and facilities of host and other tenant commands for public works, berthing, messing, medical, recreation, security, and fire protection. Other supports include contracting support, aviation supply support, use of aircraft and equipment for training support and use of shops and spaces for hands-on training.

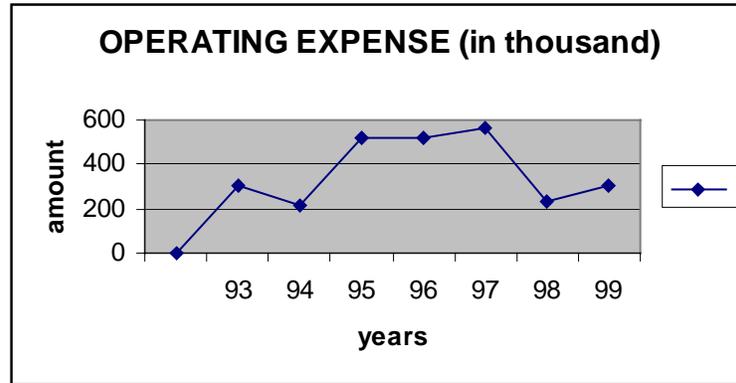
ATTC's three buildings (bldg 4, 6, and 8) encompass 84,700 sqft of space. Building 4 (57,800 sqft) houses all administrative functions and contains the offices for all division officers, Branch Chiefs, "A" and "C" School instructors, a media-graphics center, a multipurpose room, a technical library, a conference room, and all the classrooms and labs needed to teach 3 Aviation "A" schools and several "C" Schools. Building 6 (12,700 sqft) provides the spaces necessary for much of the hands-on (performance based) training. The work areas consist of the static aircraft and large component bay and engine shops, paint shop, welding shop, and the metal fabrication shop. Building 8 (14,200 sqft) provides the training space for the avionics maintenance trainer and AFCS Trainer of the H-60 helicopter. It also contains a state of the art computer center, three avionics systems training labs (HU-25, H-65, H-60), an AFCS lab, additional classrooms, and a battery lab.

## CAPABILITY

Technical aviation training is the primary responsibility of ATTC. Over the last 5 years, the training center has annually graduated 180 "A" and 272 "C" School students. The number of "A" School graduates represents the majority if not all technicians for the CG aviation community. Currently, facility and staff allowance are designed to accommodate the annual instruction of 236 "A" School and 280 "C" School students. With no additional staffing, the training center can increase "A" School throughput to 292 students. If necessary, and with the cancellation of "C" Schools in its entirety, a surge to 356 "A" School students throughput is possible. With the recent rate consolidation, the projected throughput for the next several years centers around 240 "A" School students. The number of "C" School students are not yet determined pending additional tasking to develop classes which will teach sensor upgrades for the various airframes. ATTC has requested funding for various upgrades to classrooms and training aids. We will continue to monitor and analyze the need for changes through internal and external evaluations and make the adjustment as necessary to meet the Coast Guard's needs.



## FUNDING HISTORY

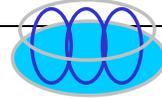


The Aviation Technical Training Center was commissioned in 1978 to fulfill the need for a central location to train all enlisted aviation maintenance personnel. Prior to its commissioning, the apprentice level training was given at either ARSC Elizabeth City or the Navy Aviation Technical Training Center in Memphis, TN. ATTC was originally comprised of two buildings (Main ATTC building (4) and Static Display building (6)). In 1992, The H-60 Maintenance Training Facility (Bldg 8) was added to the school. It was designed and built to provide much needed training space required by the additional student throughput required by the Avionics Maintenance Trainer and AFCS Trainer of the H-60 helicopter. ATTC continues to be a tenant command at Support Center Elizabeth City. The Support Center is responsible for the funding of all building upgrades and repairs and the management of all AFC-43 funds. Per the 1999 "Shore Facility Inventory Report", ATTC's total replacement value is \$ 7M. Based on the actual expenditure over the past 7 years, ATTC's average annual Operating Expense (OE) was \$379K.

*Note: FY 95-97 includes implementation costs of Aviation Workforce Restructuring*

## CURRENT PERSONNEL ALLOWANCE

Officer:	3
Warrant Officer:	3
Enlisted:	72
GS:	6
WG:	0
Contract:	0
Total:	84



## ASSET

AIRCRAFT REPAIR & SUPPLY CENTER  
Elizabeth City, NC



## MISSION

ARSC provides Air Stations with depot level maintenance, engineering, supply and information services to support Coast Guard missions.

The Aircraft Repair and Supply Center (ARSC) is the core logistics center for Coast Guard aviation. Since its commissioning in 1947, ARSC has continuously provided support to an ever-changing mix of aircraft types and operating units. Today, ARSC delivers integrated logistics support to four major aircraft systems, 206 aircraft and 25 customer air stations. ARSC is a headquarters unit working under Commandant (G-SEA). As a support element, ARSC primarily serves internal Coast Guard customers (operating units) and provides capability for the accomplishment of the Coast Guard's Performance Goals at the lowest possible life-cycle cost. ARSC's Strategic Goals are linked directly to the G-S Strategic Goals as shown below:

ARSC Strategic Goals:	G-S Strategic Goals:
Exceed our customer's expectations	<ul style="list-style-type: none"> <li>Continually improve operational effectiveness.</li> <li>Build a workforce culture based on customer service.</li> </ul>
Become a premier leader in logistics and financial	<ul style="list-style-type: none"> <li>Continually reduce life-cycle process costs.</li> </ul>
Become the model for technology integration.	<ul style="list-style-type: none"> <li>Improve enterprise-wide technology management.</li> </ul>
Use best business practices	<ul style="list-style-type: none"> <li>Optimize our internal practices and processes</li> </ul>
Achieve a capable, motivated, safe and enthusiastic workforce.	<ul style="list-style-type: none"> <li>Recognize that people are key to our support delivery</li> </ul>

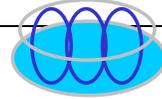
## PHYSICAL PLANT

ARSC is a single-site, tenant command of Support Center Elizabeth City. Its physical plant encompasses 15 buildings totaling approximately 450,000 square feet sited on 55 acres. Key ARSC facilities include two maintenance hangars, a three acre warehouse, an engine overhaul and repair shop, a paint refinishing hangar, two paint stripping hangars, an avionics repair shop, a gearbox repair shop and administrative offices. Replacement cost for these facilities is estimated at \$120,500K. All facility improvements and upgrades are addressed in the Support Center Elizabeth City Master Plan.

## CAPABILITY

The current mission responsibility of ARSC is to effect programmed depot maintenance, overhaul, major repair, and modification of aircraft and aeronautical equipment; provide for procurement, inventory storage, control, accounting, issue and shipping of aircraft supplies, parts and aeronautical equipment; preserve, store, and maintain replacement aircraft parts; provide technical engineering support in the aeronautical and avionics fields; maintain aeronautical engineering information systems and provide salvage advisory expertise when required. To carry out this mission ARSC is currently organized into four aircraft product line divisions (HH-65, HH-60, HU-25, HC-130) and four support divisions; Engineering and Industrial Support Division, Aviation Logistics Division, Information Systems Division, and the Administrative Division.

ARSC's major capability is their people. The 835 ARSC employees are the backbone of aviation support and they are the most important resource in maintaining Coast Guard aviation capability. The average age of ARSC's civilian workforce (GS and WG) is currently 49.5 years and there are 60 employees who are eligible to retire in the next five years. This projected exodus of experience could significantly impact the ability of ARSC to provide logistics support to the aviation fleet. This aging workforce is also more susceptible to illnesses and on-the-job injuries that can hamper production capabilities. To address this concern, ARSC has initiated a resource proposal to implement an apprentice program that will bring trainees on board to work alongside the skilled artisans and learn the aircraft maintenance trades. This request for additional billets will enable ARSC to maintain current aircraft maintenance standards and



production schedules while training the next generation of mechanics.

ARSC's business also requires an extensive industrial capability. The existing industrial equipment and machinery used throughout ARSC is aging and has not kept pace with advances in technology. In addition, as aircraft equipment has become both more complex and more expensive, ARSC has found it to be more cost effective to repair or manufacture many items in house vice through original equipment manufacturers or repair vendors. Leveraging technology in the upgrade of industrial equipment will allow ARSC to maintain current productivity without increasing the existing workforce or budget. A resource proposal has been initiated to address this concern. Estimated cost to modernize the industrial infrastructure is \$2,775K.

ARSC also manages large ground support equipment (GSE) items for all Coast Guard air stations. This equipment includes high value items such as aircraft tow tractors, refueling trucks, ground power units, air start carts, cargo handling equipment, hydraulic and air conditioning servicing units, major test equipment and check stands. The condition of aviation GSE has deteriorated over the years due to higher priority competing aircraft requirements. A resource proposal has been initiated to recapitalize aviation GSE through a partnership with the Naval Support Equipment Facility (NAVSEFAC). The plan calls for a long term approach with the complete overhaul of existing equipment and the establishment of routine recurring maintenance through the NAVSEFAC at a projected savings of approximately 40% over the lifetime of the equipment compared with the purchase of new GSE.

As stated above, ARSC manages the major aeronautical engineering information systems that support Coast Guard aviation. These systems are described below:

- Aviation Maintenance Management Information System (AMMIS): performs fiscal accounting, procurement management, labor, material and overhead costs of depot maintenance, and provides total asset visibility for the \$715M aviation inventory.
- Aviation Computerized Maintenance System (ACMS): maintains aircraft configuration, aircraft maintenance scheduling, serial number tracking of high value aircraft components, and reliability-centered maintenance.
- Engineering Technical Computer System: enables production and maintenance of aviation technical manuals, computer-aided design and manufacturing and finite element analysis.
- Aviation Technical Information Management System (ATIMS): an ongoing project to convert all aviation technical manuals to electronic format.

There is currently an AC&I project to integrate the AMMIS and ACMS systems which is scheduled to be completed in FY02. This four year, \$12.3M project will allow for the linking of our maintenance and supply logistics systems, will eliminate redundant data entry, provide a decision support system and enable sharing of data between the aviation systems and other Coast Guard logistics information systems.

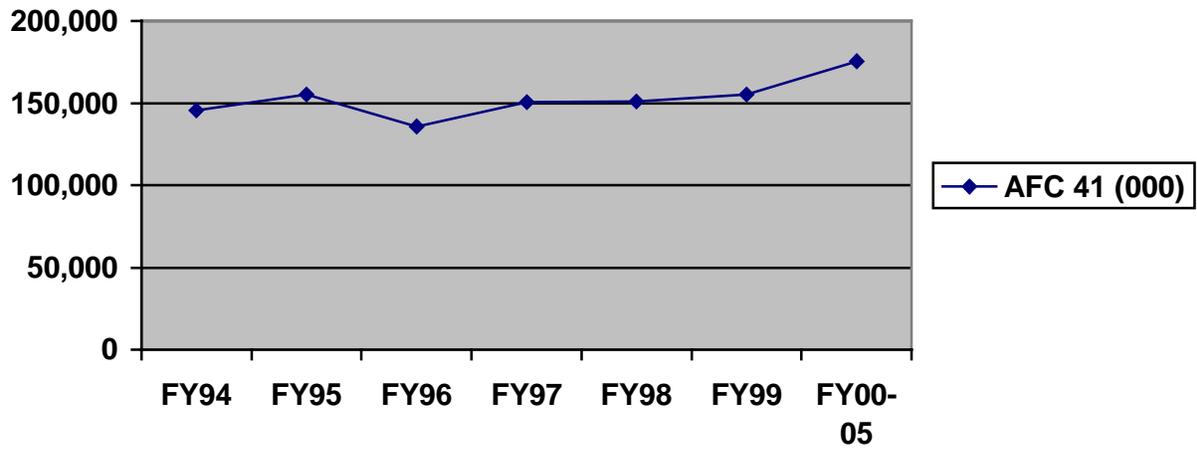
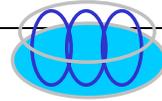
Finally, ARSC is also in the closing stages of an organizational redesign effort. This project has seen ARSC transition from a traditional functional organization to a customer-focused, aircraft product line organization. The ARSC redesign is scheduled to be completed by the end of FY 2000.

## FUNDING HISTORY

	94	95	96	97	98	99
OE (AFC41)	\$145,580K	\$155,200K	\$135,700K	\$150,496K	\$150,823K	\$155,420K
AC&I*				17,640K	23,427K	36,700K**
TOTAL	\$145,580K	\$155,200K	\$135,700K	\$168,136K	\$174,250K	\$192,120K

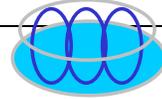
\*Funds do not provide ARSC upgrades/improvements. Support aviation assets maintained by ARSC.

\*\*\$96M FY99 aviation supplemental appropriation (no-year funds) not reflected in this total.



### CURRENT PERSONNEL ALLOWANCE

Officer	28
Warrant Officer	28
Enlisted	106
GS:	127
WG:	363
Contract:	183
TOTAL:	835



## ASSET

NATIONAL MOTOR LIFEBOAT SCHOOL  
Ilwaco, WA

## MISSION

Provide training for personnel in Motor Lifeboat operations, familiarization and maintenance. Provide support for the Coast Guard Boat Readiness and Standardization Program including periodic assessment visits of all Motor Lifeboat units. Provide subject matter expertise and support to the Motor Lifeboat units and Coast Guard boat community as a whole.

### Unit Performance Goals:

- (1) Conduct resident training classes for MLB crews as well as personnel assigned inspection or support roles for the Motor Lifeboats.
- (2) Conduct mobile training at Motor Lifeboat units in support of their transition from the 44' MLB to the 47' MLB.
- (3) Execute Readiness and Standardization Program (StanTeam) assessment visits for all Motor Lifeboat units. Assessments include boat materiel condition, configuration control, boat crew training, support and operational management issues.
- (4) Provide platform support to the field including research and prototype efforts for continued fleet or equipment improvements.
- (5) Work jointly with UTB Systems Center to support the Coast Guard boat community through policy and procedures input including periodic review and updates of program manuals (i.e. operator's manuals, boat crew qualification guides).

## PHYSICAL PLANT

### Single Site Unit

**Total Acreage:** 1 Acre

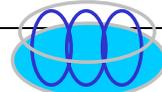
**Number of buildings:** 2

**Total Square Footage:** 6600 (Main Building: 3724 Sq. Ft. Maintenance Shop Building: 2876 Sq. Ft.)

**Tenant Command:** NMLBS is a tenant command of Station Cape Disappointment. A Boat Maintenance Facility equipped with a travel lift can handle 52' MLBs and smaller. This is shared jointly between Station Cape Disappointment and NMLBS. Other shared facilities include covered boat docks, allowing for semi-protected waterborne maintenance.

## CAPABILITY

- (a) NMLBS provides training for Coast Guard personnel in Motor Lifeboat Operations to better prepare them for service to the public.
- (b) The school is meeting current demand for scheduled MLB classes, 47' Transition training and MLB Standardization assessments. NMLBS has taken on a new role in providing resident training classes for 44' MLB familiarization as part of the U.S. overseas transfers (Foreign Military Sales) of boat hulls being taken out of service.
- (c) The NMLBS instruction and standardization team staff will have great demands placed upon them in the next few years with the ongoing delivery of the 47' MLB. The training time to qualify a resident surfman instructor is approximately one year; this dramatically increases the demand for training resources when there is high turnover during transfer season. The Standardization Team will be greatly affected due to the number of 47' MLB's replacing 44' MLB's. There will be approximately 117 47' MLB's replacing 80 44' MLB's. Current staffing resources are not adequate to meet a biennial station visit schedule. A FY2001 billet increase has been sought to compensate for this growth.



- (d) This unit is currently undergoing a major mooring replacement project which includes the addition of a covered mooring with a capacity to tie up two 47' MLB's. NMLBS also continues to upgrade our audio/visual equipment for optimal classroom instruction delivery.

NMLBS partners closely with the Operations, Acquisitions, and Engineering offices to correct fleet wide issues or seek improvements for the MLB fleet.

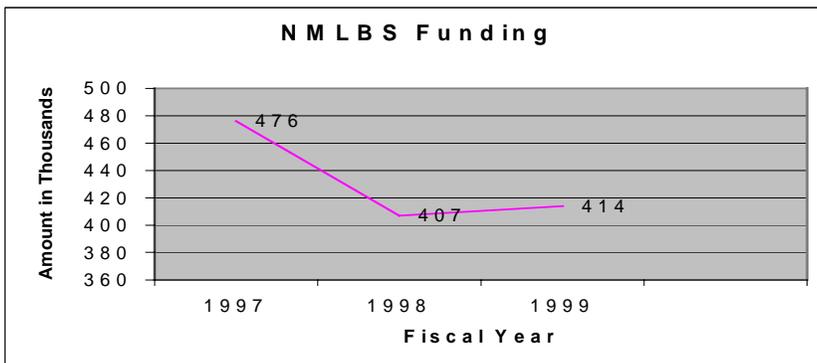
## FUNDING HISTORY

Annual OE costs related to preserving capability:

Budgeted Costs: AFC-30: \$413,756

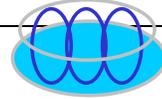
### ACF-30 FUNDING (in thousands)

FY-97	\$476K
FY-98	\$407K
FY-99	\$414K



## CURRENT PERSONNEL ALLOWANCE

Warrant Officer	1
Enlisted	37
Total	38



## ASSET

### MAINTENANCE AND LOGISTICS COMMANDS (MLCs)

Location(s):

- MLC Atlantic, Norfolk, VA
- MLC Pacific, Alameda, CA

## MISSION(S)

Section under development

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS					

## PHYSICAL PLANT

Section under development

## CAPABILITY

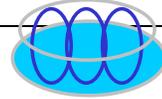
Section under development

## FUNDING HISTORY

Section under development

## CURRENT PERSONNEL ALLOWANCE

Section under development



## ASSET

COMMAND & CONTROL ENGINEERING CENTER (C2CEN)  
Portsmouth, VA



## MISSION

C2CEN provides Coast Guard-wide life-cycle engineering support, evolutionary systems engineering, training, and configurations control of Command and Control (C2) systems, electronic sensors, and navigation systems excluding Loran-C. As a System Management Engineering Facility (SMEF), C2CEN provides engineering support and development, configuration management and tracking for all CG marine electronic navigation systems.

### Unit performance goals:

C2CEN will function as the focal point in the CG's effort to satisfy customer requirements for unified command and control systems, electronic sensors and navigation systems (exc. LORAN-C) and will provide technical expertise and maintenance support for all electronic systems assigned to the Command and Control Engineering Center. Support functions will include: training, engineering, system management, and electronic navigation charts. C2CEN will develop systems that minimize support costs while allowing for technological improvements to Coast Guard hardware/software and develop our personnel into experts in areas of emerging technology and standards development for systems under our cognizance. We will provide responsive support to our customers and partner with them to achieve their mission performance goals. Specific performance goals are being developed as part of an overall effort to obtain ISO-9000 accreditation.

The US Coast Guard is strategically oriented to support the following "Public Outcomes": Safety, Mobility, Protection of Natural Resources, Maritime Security and National Defense. The Coast Guard's capability to provide services supporting these "public outcomes" depends on availability and effectiveness of assets: ships, Aids To Navigation (ATON), boats, aircraft, people, communication and information systems, buildings and sensors. C2CEN's effectiveness as a System Management and Engineering Facility (SMEF) directly affects asset capabilities (and thereby affects operational effectiveness) by impacting system reliability, availability, functionality, safety, and flexibility.

## PHYSICAL PLANT

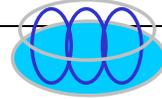
- (a) Single Site Unit
- (b) Total acreage: Tenant of ISC Portsmouth
- (c) Number of building: 1
- (d) Total square footage: 48,733 [19,435 of this is leased]

(e)	<u>Primary Build/Structure</u>	<u>Total Sq Ft</u>	<u>Leased Sq Ft</u>	<u>Description Of Use</u>
(1)	Main Bldg.	29,298		
(2)	13 Trailers (1495 sq ft / trailer)		19,435	Projects / Training

### (f) Unique Equipment/Facility:

- (1) WLB / WLM\* Land Based Support Facility (LBSF) includes baseline, development & training simulators & software, and specially equipped classrooms.
- (2) Shipboard Command and Control System (270' class) classroom & development mock-ups
- (3) Shipboard Command and Control System (378' class) classroom & development mock-ups.
- (4) Shipboard Command and Control System (210' class) development mock-up.
- (5) Vessel Traffic Service (VTS) baseline & development mock-up.
- (6) Short Range Aids to Navigation (SRAN) baseline / equipment
- (7) Differential Global Positioning System (DGPS) / Nationwide DGPS baseline / equipment
- (8) Command and Control Personal Computer (C2PC) baseline

\*225' Juniper Class Buoy Tender/175' Coastal Keeper Class Buoy Tender



## CAPABILITY

C2CEN provides configuration management and tracking for all CG Command & Control (C2) systems, including system hardware, software, and training documentation for equipment used on CG cutters and at CG shore facilities. As a SMEF, C2CEN provides engineering support and development for C2 systems. We also provide configuration management, tracking, engineering support and development for all CG marine navigation systems including: Short Range Aids To Navigation Systems, Vessel Traffic Service upgrade systems, Shipboard radar, GPS, Differential GPS, Electronic Charting Systems (ECS) and Geographic Information Systems (GIS). C2CEN also provides operations & maintenance training, depot level technical support and repair for C2 and electronic navigation systems and a WLB(r)/WLM(r) Land Based Support Facility with integrated bridge equipment to deliver operation & maintenance training.

C2CEN appears to be growing as the Coast Guard increasingly relies on integrating new technology into existing systems to accomplish missions. Current resources keep C2CEN adequately staffed to serve as an effective System Maintenance and Engineering Facility (SMEF) for CG Command and Control systems, electronic sensors and navigation systems. Integrating new technology allows increased efficiency and effectiveness. However, the cost of adapting & integrating, as well as supporting new technologies, is significantly more than previous levels of electronics spending. In this environment of rapidly advancing technology, hardware and software upgrade expenses will be required to keep existing equipment compatible with vendor upgrades & modifications to "off-the-shelf" technology. These changes will be expensive and will represent a significant increase to historical levels of spending on computer hardware and software.

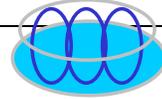
WLM / WLB trainers were delivered in FY99. New building construction is due for completion in FY00. Renovations to the existing building which are needed to accommodate increased training requirement, are scheduled to begin in FY00. Space requirements continue to increase as more electronic systems require integration into existing and planned sensor suites (e.g., shipboard forward-looking infrared (FLIR) capability, Command Center SMEF, etc.). Recent technological trends suggest that computer software and hardware will experience a 1½ to 3 year life cycle. Since all of the systems supported by C2CEN are technology based (e.g dependent upon hardware and software), support requirements must be continually evaluated against available personnel and operating resources to determine when upgrades make the most fiscal sense. Generally, newer systems allow increased capability with the same or less personnel resources. However, these advances come with increased complexity that result in significant development and support costs. Obtaining sufficient resources to keep pace with advancing technology will continue to be a challenge. The Shipboard Command & Control Systems (SCCS) for the CG's 378', 270' and 210' high and medium endurance cutters, are designed to automate tactical information management and enhance tactical decision making. These systems integrate sensors, displays, communications, and advanced computing technology into a contemporary Combat Systems Center (CSC) architecture. The system provides for rapid processing, fusion, and information dissemination of tactical data obtained from organic sensors and over the horizon data links.,

The Defense Information Infrastructure (DII) -based VTS system is built on Commercial Off-the-Shelf (COTS) and Government Off-the-Shelf (GOTS) software and hardware. The major software code base is the Defense Information Agency's (DISA) DII Common Operating Environment (DII-COE). This same base is being used to support the majority of the core systems supported at C2CEN including SCCS for the high and medium endurance cutters and the Command and Control Personal Computer (C2PC). Using standard operating systems and equipment enables the leveraging of both technology and support, significantly avoiding higher costs for overall system life-cycle support. The Land-Based Support Facility (LBSF) for the new 225' Juniper Class Buoy Tender (WLB) and the 175' Coastal Keeper Class Buoy Tender (WLM) will serve as the single point of contact for technical and training support of the Integrated Ship Control System (ISCS). The ISCS controls and monitors the operation of machinery and navigation sensors onboard both classes of ships. The LBSF will provide training on the enhanced positioning and propulsion systems that will enable the crew to more effectively perform search and rescue, enforce laws and regulations, and respond to marine or environmental accidents. C2CEN will play a key role in the conversion of U.S. Air Force Ground Wave Emergency Network (GWEN) sites, into a nationwide implementation of DGPS, commonly referred to as NDGPS.

## FUNDING HISTORY

(a) AC&I Appropriation

<u>FY</u>	<u>APPROPRIATED/ALLOCATED</u>
-----------	-------------------------------



94	\$0
95	\$1017.2K
96	\$3661.1K
97	\$0
98	\$4,700.0K

AC&I Improvements & Upgrades by FY (capital improvements >= \$200K)

FY	UPGRADES/IMPROVEMENT	APPROPRIATED FUNDING
98	House new (combined) C2CEN	\$4,700.0K

[New Bldg. (28,032 sq. ft) currently under construction; scheduled for completion in FY2000.]

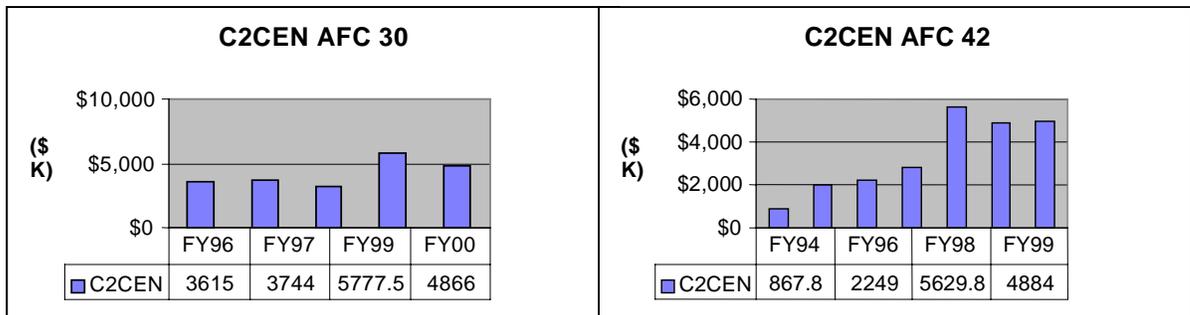
(b) Annual OE costs:

Budgeted Costs:

	FY94	FY95	FY96	FY97	FY98	FY99	FY2000
AFC-30:	\$867.8K	\$2002.4K	\$2249.6K	\$2840.0K	\$5629.8K	\$4884.0K	\$4632.5K
AFC-42:			\$3615.0K	\$3744.0K	\$3220.0K	\$5,777.5K	\$4866.0K
AFC-43:	N/A						

AFC-30 FY96 projected through FY00

AFC-42 FY94 projected through FY-00

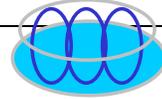


## CURRENT PERSONNEL ALLOWANCE

	Active	Reserve		Civilian	Total
Officer	45	4			
Warrant	13	0	GS	25	
Enlisted	50	5	WG	0	
				25	
<b>Total</b>	<b>108</b>	<b>9</b>		<b>25</b>	<b>142</b>

Additionally, C2CEN employs approx. 50+ contractors, on site.

**Note:** Expect to receive 1 add'l GS billet in FY00 for Shipboard FLIR



## ASSET

CG PERSONNEL COMMAND

Coast Guard Headquarters Building, Washington D.C.

## MISSION(S)

Functions as a “one-stop shopping” service to meet the personnel needs for all Coast Guard active duty, reserve, and civilian employees. Main services include Accessions, Assignments, Promotions & Advancements, Evaluations, and Separations & Retirements.

Unit Performance Goals:

CGPC has identified several goals and areas of focus for the FY2000. They include:

- Utilizing the existing and emerging technology to improve our ability to retain Active Duty, Reserve, and Civilian personnel with on-line technology and HR software
- Improving Customer Focus and Communications
- Improving HR Responsiveness; reducing HR request cycle
- Identifying near term skill set gaps vs. program needs
- Maintain or improving confidence in the assignment and advancement processes.

CGPC’s main performance goal is to staff the Coast Guard for success.... provide the right people in the right places to accomplish the Coast Guard’s complex, varied missions and strategic goals.

## PHYSICAL PLANT

Not applicable. Shares leased Headquarters’ building at Buzzard’s Point.

## CAPABILITY

As stated above, CGPC functions as a “one-stop shopping” service to meet the personnel needs for all Coast Guard active duty, reserve, and civilian employees. Our main services are Accessions, Assignments, Promotions & Advancements, Evaluations, and Separations & Retirements.

Our main challenge into the next century will be keeping up with society’s technological advancements. Specifically, we need to radically improve and upgrade our personnel databases to give our unit’s personnel the most up-to-date, timely information on crucial personnel information. Additionally, we are attempting to obtain funding to provide laptops for all our assignment officers that will allow them to telecommute from home. Increasing our personnel’s ability to telecommute is a DOT-wide initiative, and due to the extraordinary amount of time that detailers have to spend at the office at night and on weekends, funding laptops and remote access availability would be money very well spent.

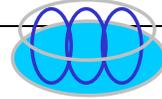
We are moving toward telecommuting by detailers to improve access & interaction with field, while simultaneously enhancing CGPC’s work-life/morale. This initiative is constrained by availability of funds for dockable laptops (\$225K), which was included in OPSTAGE & FY-00 Budget Request. We are also looking to improve migration from paper to electronic selection boards, which is also contingent on as yet unidentified funding. Additional initiatives in this area include automating the generation of the Register of Officers (both Active Duty & Reserve), and working towards the development of a system to track medical waivers CG-wide.

PESL: N/A

## FUNDING HISTORY

AC&I Appropriation: **Not applicable**

AC&I Improvements & Upgrades by FY (capital improvements >= \$200K) **None**



Average annual OE costs related to preserving capability:

Budgeted Costs:

AFC-43: **None**

AFC-20: FY95: **\$64,280K G-CFM-2**

FY96: **\$75,310K G-CFM-2**

FY97: **\$67,250K G-CFM-2**

FY98: **\$68,000K G-CFM-2**

FY99: **\$74,737K G-CFM-2**

FY00: **\$70,000K G-CGM-2 (est.)**

AFC-30: FY95: **\$6,652K G-CFM-2**

FY96: **\$6,332K G-CFM-2**

FY97: **\$6,416K G-CFM-2**

FY98: **\$6,560K G-CFM-2**

FY99: **\$6,532K G-CFM-2**

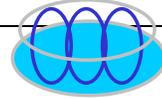
FY00: **\$6,428K G-CFM-2**

\*Approximately \$5.6M of our annual AFC-30 budget is reserved for CGRC. For FY99, CGRC received \$5,619,912 of our AFC-30 funds. For FY98, CGRC received \$5,604,912 of our AFC-30 funds.

## CURRENT PERSONNEL ALLOWANCE \*

Officer:	41
Warrant Officer:	30
Enlisted:	32
GS:	136
WG:	0
Contract:	0
TOTAL:	239

- These numbers do not include the Coast Guard Recruiting Command, which will shortly become their own command. CGRC has 11 officers, 3 warrant officers, 19 enlisted, and 3 civilians (total 36 personnel).



## ASSET

USCG INSTITUTE  
Oklahoma City, OK

## MISSION(S)

The Coast Guard Institute is dedicated to serving the performance improvement needs of the Coast Guard and the professional and personal needs of its members through distance learning and through process measurement.

The Institute is the Coast Guard's distance learning technical resource center and is a clearinghouse for information on distance learning technology. It is a model organization at the core of the Coast Guard's non-resident training and education program which efficiently improves the performance of Coast Guard members through a variety of distance learning methods.

The Institute is the Coast Guard's process measurement center analyzing performance improvement needs for the Coast Guard using state-of-the-art survey technology for assessing the needs and effectiveness of Coast Guard programs.

### Unit Performance Goals:

- (1) Produce and distribute high quality non-resident courses and test materials.
- (2) Score tests and track enrollments and completions.
- (3) Ensure high quality courses by working closely with program managers and subject matter specialists to incorporate input from analyses of test results and feedback from students.
- (4) Serve as the leading source to design, deliver, evaluate, and advocate non-resident training using state-of-the-art technology.
- (5) Provide opportunities for personnel to attain graduate and undergraduate degrees.
- (6) Assist members in planning the best way to attain their educational goals.
- (7) Provide a mechanism to document military experiences applicable to colleges and universities, and potential employers.
- (8) Produce and distribute measurement instruments and analyze the results for decision makers.

## PHYSICAL PLANT

Single Site Unit: The CG Institute leases all of its space from the Mike Monroney Aeronautical Center, occupying 11,600 total square footage.

## CAPABILITY

- (a) Describe the products and/or services the unit currently provides to the Coast Guard or public: Provides non-resident courses and test materials, assessment of military education and measuring instruments to analyze resident training.
- (b) Compare the unit's current ability to deliver required products and/or services to the Coast Guard/public with current demand for the products or services. (current demand): The current demand is higher than we are able to provide. This is an ever-increasing problem due primarily to our marketing of our processes.
- (c) Identify any gaps between the unit's ability to deliver products and services to the Coast Guard and the public that need to be addressed in the next 2-5 years. (projected future demand): Additional personnel resources.
- (d) Identify any ongoing or planned initiatives relative to maintaining needed capability, e.g., modernization, improvement or upgrades to business processes, equipment, systems or facilities. We have a request to upgrade our Progress Database from Version 6 to Version 9. This will increase our ability to meet the technology needs of our customers (i.e., web-based services). Additionally, with the increased usage of our Voluntary Education Programs, particularly our library of College Level Entrance Program (CLEP) tapes, additional funding is needed to supplement our library to decreased the backlog of requests.
- (e) Indicate projected end of service life (PESL) based on standard service life projections; compare PESL to real-world experience. The Xerox Docutech is past its life expectancy of 7 years. The maintenance contract is still valid, but the Xerox Corporation has stated that with the age of the equipment they could void the contract if equipment started to need maintenance above and beyond the required normal maintenance.



- (f) Highlight any problem areas, technology issues, etc.: The Institute Database (written in Progress Version 6) tracks 30 years of records and enrollments. With this version we've experienced 63KB size program limit problems, lock table overflow problems and Y2K problems on several of the Progress programs. We currently have a request in to upgrade our current database to Progress Version 9, which will solve all of these problems and allow us to improve our customer satisfaction and reduce mailing and printing costs.

## FUNDING HISTORY

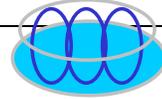
Annual OE costs related to preserving capability:

Budgeted Costs:

AFC-30: \$739,000

## CURRENT PERSONNEL ALLOWANCE

Officer:	3
Warrant Officer:	2
Enlisted:	18
GS:	8
WG:	0
Contract:	0
TOTAL:	31



## ASSET

HEADQUARTERS SUPPORT COMMAND  
Washington, DC

## MISSION(S)

Provide administrative, medical, information services, worklife, EEO, facilities management, and PERSRU services to Headquarters and National Capital Area commands.

Unit Performance Goals: HSC meets the human, information and environment service needs of personnel assigned to Coast Guard Headquarters.

Description of how unit performance goals contribute to achievement of CG Strategic & Performance Goals: Foster partnerships, teamwork and communications; be proactive; provide innovative solutions/best practices; serve as stewards of CG resources

## PHYSICAL PLANT

- (a) Single Site Unit
- (b) Total acreage: 2 1/4
- (c) Number of buildings: 1
- (d) Total square footage: 542,315

(e)	<u>Primary Build/Structure</u>	<u>Total Sq Ft</u>	<u>Leased Sq Ft</u>	<u>Description Of Use</u>
	(1) Concert/Glass/Metal Panes	542,315	453,860	Office Space

- (f) Tenant Command(s): HQ, CGPC, US Interdiction Coordinator

## CAPABILITY

- (a) Provide Clinical Services: (Outpatient Care, Lab, PE, Routine Restorative Dentistry, and Medical Boards)
- (b) Information Services Branch: (Install and maintain printers)
- (c) Customer Services Branch: (Provide equipment for equipment for checkout)
- (d) Budget and Planning: (Organization & operations planning)
- (e) Communications Operations Branch: (Network Security, Voice Mail)
- (f) Administrative Services: (PERSRU, Education Services, Voting, Mutual Assistance, Facilities Management, Motor Pool, Exchange Liaison, Safety, Purchases, Personal Property, Contractor Performance, Equipment Maintenance, Family Programs, Fitness Center, Work-life, Housing, Funerals, Day Care Center)

## FUNDING HISTORY

- (a) AFC -30

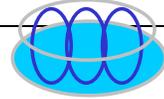
<u>FY</u>	<u>APPROPRIATED/ALLOCATED</u>
98	\$4,213,090.00
99	\$4,294,535.00

- (b) Working Capital Fund

<u>FY</u>	<u>APPROPRIATED/ALLOCATED</u>
97	\$6,592,286.10
98	\$7,808,437.72
99	\$7,280,849.07

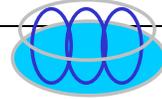
- (c) GSA Real Property for Building Operation

<u>FY</u>	<u>APPROPRIATED/ALLOCATED</u>
98	\$1,280,878.36
99	\$1,019,487.64



## CURRENT PERSONNEL ALLOWANCE

Officer:	15
Warrant Officer:	8
Enlisted:	58
GS:	53
WG:	0
Contract:	37
TOTAL:	171



## ASSET

LORAN SUPPORT UNIT  
Wildwood, NJ



## MISSION

LSU provides the equipment, software, engineering, & technical support for the North American Loran-C radionavigation system. This system includes 29 Loran Transmitting Stations (LORSTAs), 29 Primary Chain Monitoring Set Sites (PCMS), and four Control Stations (CONSTAs). International agreements also require we provide support to our Canadian and Russian neighbors, with whom we share radio navigation responsibilities across our common land and sea borders. In the spirit of international cooperation, LSU interfaces, both operationally and technically, with Loran and communications engineers and specialists in The Netherlands, Norway, Italy, Germany, Iceland, Saudi Arabia, Japan, and China. The LSU also supports Loran-C efforts at other Coast Guard commands, including the Engineering Logistics Center (ELC), the Coast Guard Academy, Training Center Petaluma, Navigation Center (NAVCEN), Telecommunication & Information Systems Command (TISCOM), Volpe National Transportation Systems Center (VNTSC), Atlantic & Pacific Area Commands, and the Maintenance & Logistics Commands (MLCs) for the Atlantic and Pacific Areas. Additionally, the LSU is assigned responsibilities as the Systems Management and Engineering Facility(SMEF) for all Loran-C equipment and systems and Coast Guard peculiar software.

### Unit performance goals:

In our capacity as the SMEF for Loran-C, LSU's goal is to provide the superior support necessary for all LORSTAs, PCMS sites and CONSTAs to maintain 99.9% availability as required by Public Law.

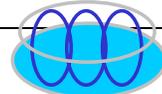
The LSU contributes directly to the CG's Performance Goal M1 (Aids to Navigation) by providing mariners with highly accurate, continuous, navigation capabilities 99.9% of the time. The LSU efforts are directly linked to the Commandant's Direction, fulfilling his desire to provide superior support for our units, leading and participating in ONEDOT initiatives, and improving outcomes by investing in technology.

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS			M1		

## PHYSICAL PLANT

- (a) Single Site Unit
- (b) Total acreage: 492 acres
- (c) Number of building: 5
- (d) Total square footage: 30,645

(e) Primary Build/Structure	Total Sq Ft	Leased Sq Ft	Description Of Use
C-1	5,700	0	Admin/Laboratory
C-2	6,500	0	Laboratory
C-3	2,000	0	Laboratory
C-4 (no C-5)	125	0	Storage
C-6	15,760	0	Admin/Laboratory



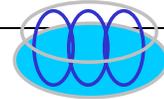
- (f) Unique Equipment/Facility: A 625-foot Top-Loaded Monopole transmitting antenna and four 35-foot receiving antennas, including 1700-foot diameter and 70-foot diameter ground planes, respectively, are installed.

## CAPABILITY

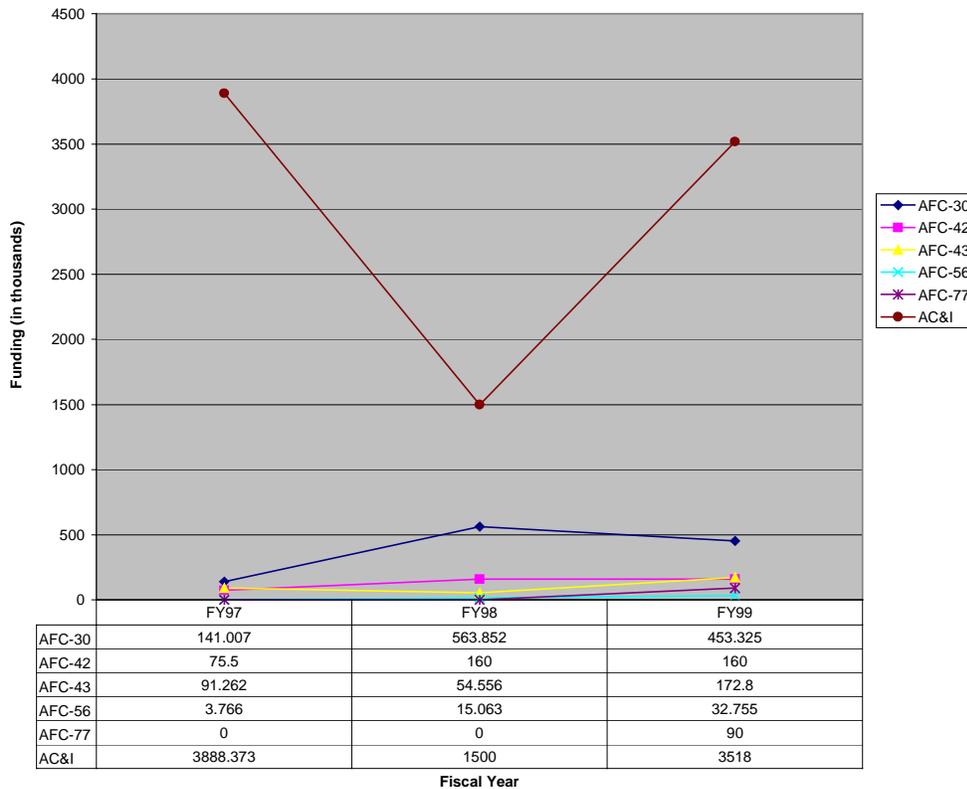
The LSU provides support to the entire North American Loran-C radio navigation system through a variety of scheduled and Crisis Contingency projects, including the design, modification, field testing, and installation of electronic equipment. As a SMEF the LSU provides hardware and software engineering and development expertise, configuration management, tracking of all Loran equipment failures, hotline and casualty reports for 20 parent systems comprising over 65 major equipments, as well as executing Engineering Changes, Field Changes, and equipment advisories. International agreements also require the LSU provide support to Canada and Russia, with whom the USA shares radio navigation responsibilities across common land and sea borders. Presently, the LSU supports four Control Stations, 29 Loran-C Transmitting Stations, and 29 Primary Chain Monitor Set Sites throughout North America. The LSU also supports Loran-C efforts at other Coast Guard commands, including the ELC, the Coast Guard Academy, TRACEN Petaluma, the NAVCEN, TISCOM, VNTSC, both Area Commands, and the Atlantic & Pacific MLCs. Currently the LSU is able to meet existing user base's demands. However, in order to meet the needs of its customers over the life expectancy of the Loran-C system, the LSU will require additional staffing and resources. The LSU was stood up with an expectation that Loran-C would not be supported beyond 2000 and was staffed accordingly. New Congressional mandates may extend that date to 2008. This service life extension will require additional billets and other resources in order to ensure a viable sustainability. LSU is in the preliminary stages of initiating a recapitalization project which will allow Loran-C to continue functioning and remain supportable until 2008. Plans to terminate Loran-C operations on December 31, 2000 were announced in the 1996 Federal Radionavigation Plan. A congressionally mandated report on the future use and funding of Loran-C, prepared for DOT in 1998, recommended Loran-C operations continue beyond year 2000. The decision to terminate Loran-C operations is currently under review by the Department of Transportation. The effort to fully recapitalize Loran-C is constrained by resources – people/money – and not technology.

## FUNDING HISTORY

LSU has no Coast Guard AC&I appropriations. Although LSU has AFC-60 funds, they do not fall within the Coast Guard AC&I appropriation. The multi-year funds were reprogrammed by the Federal Aviation Administration (FAA) and transferred to the Coast Guard outside of the normal budget process. The Coast Guard placed the funds in an AFC-60 account only because the funds were multi-year and the Coast Guard does not have a multi-year OE appropriation. Funds shown below have been used for Loran System upgrade/modernization projects in accordance with G-SCE/OPN agreements with the FAA, and as mandated by Congress.



LSU Funding

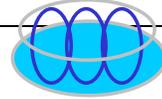


Notes:

- 1) LSU was commissioned on 16MAY97
- 2) AFC-43 funds are managed by Training Center Cape May (fe). Funds spent included repair/upgrade/maintenance of LSU facilities, the LSU 625' Loran tower, and items per the Base Realignment and Closure (BRAC III) requirements for closing the former EECEN facilities.
- 3) AFC-56 Funds for FY99 include fallout monies.

**CURRENT PERSONNEL ALLOWANCE:**

Officer:	9
Warrant Officer:	1
Enlisted:	22
GS:	12
WG:	1
Contract:	5
TOTAL:	50



## ASSET

### NAVIGATION CENTER

Alexandria, VA (Detachments in Petaluma, CA and Kodiak, AK)



## MISSION(S)

The U. S Coast Guard Navigation Center (NAVCEN) provides quality navigation services that promote safe transportation, support the commerce of the United States and directly benefit worldwide international trade.

NAVCEN supports the following Coast Guard strategic and performance goals:

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS	S1, S2, S5	P4	M1, M2		N1, N2

Through the completion of NAVCEN's assigned tasks as Operational Commander of USCG Radionavigation systems and as the source for navigation information, the NAVCEN provides a service that promotes safety at sea, law enforcement, mobility and transportation, and national defense by providing reliable means of fixing ones position.

## PHYSICAL PLANT

- (a) Multiple Site Unit
- (b) Total acreage: None- Tenant Commands at all three locations
- (c) Number of building:
  - Alexandria 3
  - Petaluma 1
  - Kodiak 1
- (d) Total square footage: 17,802

(e) Primary Build/Structure	Total Sq Ft	Leased Sq Ft	Description Of Use
(1) Operation Center	11, 772	None	Operation Center/Office Space
(2) Operation Center	3, 540	None	Operation Center/Office Space
(3) Operation Center	2,490	None	Operation Center/Office Space

- (f) Tenant Command(s): None
- (g) Unique Equipment/Facility: Navigation Information System; Loran Consolidated Control System

## CAPABILITY

The NAVCEN operates as a center of navigation excellence for the international and national maritime and transportation industries. To complete this mission, the NAVCEN controls and manages Coast Guard radionavigation systems from three sites: Alexandria, Petaluma and Kodiak. In addition, the NAVCEN operates the Navigation Information Service (NIS), a one-stop shopping center for all radionavigation system user needs that is staffed 24 hours a day 7 days a week. The NIS provides a wide range of information including the updated status, policy, and general information for GPS, DGPS, and Loran-C in the form of Maritime Safety Broadcasts and Local Notice to Mariners. The NAVCEN also coordinates and manages the Civil GPS Service Interface Committee as part of



the Department of Transportation's program to respond to the needs of civil GPS users and to integrate GPS into civil sector applications.

The NAVCEN currently meets the needs of the public for navigation information and manages the Coast Guard's radionavigation systems. The total number of Loran users is estimated at approximately 800,000 and is expected to continue to decline while the number of users of GPS and its augmentation presently number around 1.5 million and is expected to continue to rise. On average, the NIS receives approximately 130,000 inquiries a week through a variety of mediums with the majority coming in the form of Internet hits.

The projected future demand of reliable radionavigation and positioning systems will continue to rise as it has in the past decade since the advent of GPS. As the USCG DGPS system is expanded into a Nationwide system, the numbers and variety of users will most likely skyrocket. Fortunately, the DGPS system allows for an innumerable number of users. Conversely, the number of Loran users will most likely continue to decline with system termination.

Efforts to consolidate the two NAVCEN detachments into the NAVCEN in the next five years are still in the planning stages. In addition, the USCG DGPS system is being expanded into a Nationwide system through partnering with 6 other federal agencies.

Projected end of service life (PESL) is estimated sometime beyond 2025

NAVCEN will continue to evaluate transportation and navigation initiatives in relation to their applicability to the Coast Guard's radionavigation systems.

## FUNDING HISTORY

NAVCEN was created from the old ONSOD/ONSCEN (OMEGA Navigation Systems Operation Detachment/OMEGA Navigation Systems CENter). Funding data for these original facilities is not readily available. From discussions with G-OPN, ONSOD/ONSCEN was created with mostly OE funds.

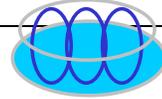
Actual operating expenditures indicated below: (direct cost data obtained from Web EIS-Corporate Database and coded specifically for WHEC 378' Class cost centers.)

	1999 *	1998	1997	1996	1995
AFC 30:	898,429	1,554,183	3,621,861	3,326,262	3,268,524
AFC 42:	46,384	37,497	52,557	274,569	645,233

1999 figures are valid through the third quarter of the year.

## CURRENT PERSONNEL ALLOWANCE

Officer:	22
Warrant Officer:	8
Enlisted:	53
GS:	9
WG:	0
Contract:	0
TOTAL:	92



**ASSET**

INTELLIGENCE COORDINATION CENTER  
Suitland, MD

**MISSION(S)**

Section under development

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS					

**PHYSICAL PLANT**

Section under development

**CAPABILITY**

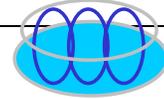
Section under development

**FUNDING HISTORY**

Section under development

**CURRENT PERSONNEL ALLOWANCE**

Section under development



## ASSET

HUMAN RESOURCES SERVICE AND INFORMATION CENTER (HRSIC)  
Topeka, KS

## MISSION

Provide personnel compensation and services for all Coast Guard members, retirees, and annuitants. Maintain human resource information for Coast Guard decision-makers.

Unit Performance Goals:

Goal 1: Customer Focus: HRSIC exists to deliver products and services. To be successful, we must maintain a helpful and courteous attitude to our customers. We must satisfy them, ensuring the products and services we provide are what they need, and are timely, accurate, and complete.

Goal 2: Employee Satisfaction and Morale: All of us at HRSIC are part of one team. We must work together to be successful. As such, our people are our most important resource. We will strive to provide them with challenging, significant, and meaningful work. We will provide our people with the best possible training and equipment in a caring environment so they have an opportunity to excel in their jobs.

Goal 3: Viability and sustainability: We are in this business for the long run, and will face constant deadlines and new programmatic, operational, and systems challenges. To help ensure our longevity and to continue delivering high value products to the Coast Guard, we will continually seek our new missions that fit our core businesses. As we apply new technologies and processes to meet these challenges, we must be cognizant of the long-term impact on our work force and the Coast Guard. When additional resources are required, we must identify and document these needs, and seek appropriate redress.

Goal 4: Business Results We provide critical functions to the Coast Guard. Therefore, we must be sensitive to the cost and quality of services we provide. We must be constantly striving for excellence and be able to demonstrate to our customers and the American taxpayer that HRSIC is the best, fastest, and most cost effective means of providing human resource services to the Coast Guard.

## PHYSICAL PLANT

- |                               |   |
|-------------------------------|---|
| a. Single site unit.          |   |
| b. Total acreage:             | N/A   |
| c. Number of buildings:       | One (HRSIC is lessee)                                   |
| d. Total square footage:      | 110,000   |
| e. Primary Building:          | Frank Carlsen Federal Building                          |
| Total Square Feet:            | 100,000   |
| Leased Square Feet:           | 44,058  |
| Description of Use:           | Office space  |
| f. Tenant commands:           | N/A   |
| g. Unique Equipment/Facility: | Extra air conditioning for IRM computer equipment room. |

## CAPABILITY

Debt collection: Collects and settles in and out of service debt; verifies and processes claims from other services and non-appropriated activities; accounts for all monies received at HRSIC, and delivers accounting data to the CG FINCEN.

Military Accounts Support: Gathers, maintains, and manages pay and personnel information on active duty and reserve CG members and NOAA officers; supports all PERSRUs and their inputs; manages pay, off-line disbursements, EFT and all allotment services' performs variety of CG-wide support services such as commissary privilege cards for all CG reservists, separation travel order numbers, and processing of waivers and remissions.

Separations, Entitlements, and Service Validations: Processes all active duty separations, validating entitlements and final pay; statements of creditable service; claims for back pay and out of service debt; issues IRS forms W-2; and death gratuity payments.



Retiree & Annuitant Services: Provides personnel support services to CG and NOAA retirees and their annuitants; processes retired pay and allotments; determines military ID card eligibility; survivor annuities; alimony and child support garnishments; former spouse division of property and tax and COLA adjustments.

Quality Assurance/Financial Reporting: Conducts assessment, internal control, and is a TQM process improvement resource; conducts accounting and financial reporting functions with other government agencies.

Advancements: Manages the enlisted advancement system; maintains enlisted performance evaluation data; provides input, then executes HQ policies on such matters, validating data and implementing CG-wide.

Systems Development and Maintenance: Provides subject matter expertise and professional development of business solutions for HRSIC and external customers; delivers total leadership on projects that promote personnel and pay accuracy and effectiveness of operations, maintenance of current personnel and pay management system, while supporting PJ2 and its preceding interim migration.

Management Information Services: Provides majority of regularly scheduled and ad hoc reports on personnel and pay related data for all CG and NOAA active, reserve, and retired members, beneficiaries and CG decision makers; provides retired pay and personnel data processing support.

Information Resources Management: Maintains all computer hardware, software, and communications infrastructure that allows HRSIC to access, manipulate, create, distribute, and receive all data necessary to support the CG's pay and personnel systems.

PMIS/JUMPS II: Responsible for design and implementation of the next generation of the CG's military pay and personnel system.; is a strategic project that will redefine what and how military personnel work will be accomplished in the future.

Administrative Services: Provides military personnel support and civilian payroll administration for HRSIC members; responsible for processing command personnel actions and prerogatives, leased housing, medical administration; conducts benefits and entitlements counseling.

Legal: Provides legal tools and research for command and CG by rendering legal opinions, processing court orders, issuing dependency determinations, and monitoring compliance with the Privacy Act and the Freedom of Information Act.

Procedures: Tasked with producing command and servicewide stand alone manuals and publications on military pay and personnel procedures; develop and disseminate information to field units regarding how to interact with HRSIC's systems.

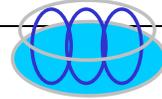
Supply: Provide procurement, logistics, maintenance services, and administration of contractual services; responsible for administration for HRSIC's mailroom.

Travel: Collects and processes travel claims for all who travel under CG orders, including PCS, TAD, and local travel for military and civilian employees.

HRISC currently service over 60,000 active duty members, over 34,000 reserve members, and over 33,300 retirees/annuitants and is able to meet current demand. We believe the active/reserve force will remain fairly constant over the next 2-5 years, and that the retired/annuitant database will slowly grow. We will be able to service these accounts based on current staffing with applicable enhancements in manpower-saving technology.

PESL: PMIS/JUMPS the current active/reserve database is outdated and will maintain the same level of performance. PMIS/JUMPS II will be engineered to process Coast Guard human resource data until the year 2015.

The conversion from PMIS/JUMPS I to PMIS/JUMPS II will involve the customization of commercial human resource/payroll software for use with military pay and personnel needs, and the change in computer platforms from mainframe to servers. These changes will be complex and costly as the 2-3 year conversion begins.

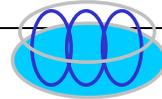


## FUNDING HISTORY

- a. AC&I Appropriation: None managed by this unit.
- b. Average annual OE costs related to preserving capability:  
AFC 30: \$1,429,000 (rounded 3 yr avg - FY 97-99)
- c. Value of PMIS/JUMPS software: The development of PMIS/JUMPS goes back to a beginning in 1966 with full implementation in 1986. During this time period software costs were not capitalized. If they had been capitalized, they would have been amortized over the expected useful life of the software, normally no more than 5-8 years. This would result in a balance sheet asset value in 1999 of zero (\$0) since the amortization would have started in 1986 and the asset would have been fully amortized sometime in the mid 1990's.

## CURRENT PERSONNEL ALLOWANCE

Officers:	5
Warrant Officers:	8
Enlisted:	142
Civilian:	<u>106</u>
TOTAL	261

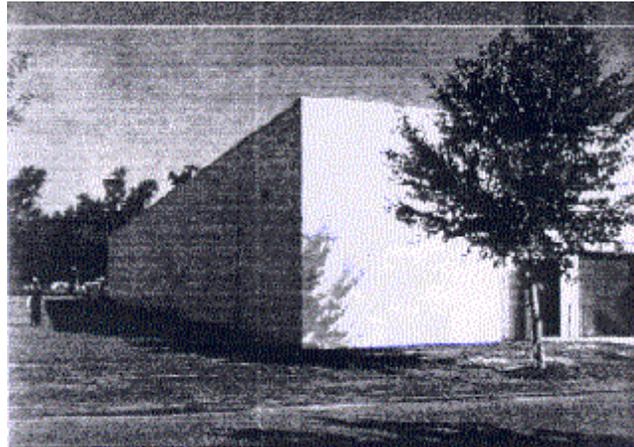


## ASSET

### UNIFORM DISTRIBUTION CENTER (UDC)

Location(s):

- Woodbine, NJ (Warehouse, FAX/Phone/Mail order uniform distribution),
- TRACEN Cape May, NJ (Recruit issue, Cash sale of uniform items)



## MISSION(S)

Provide uniforms to new recruits and provide worldwide uniform support for Active duty, reserve, and Auxiliary Coast Guard personnel. In addition, to providing uniform items to other agencies and foreign government as directed by law or Coast Guard or other federal regulation.

Unit Performance Goals:

The UDC issues uniforms to new recruits and provides uniform supply support for over 110,000 authorized patrons, including Active duty, reserve, and Auxiliary Coast Guard personnel, other U.S. military personnel, others authorized by law, and foreign governments authorized under treaty, via U.S. Department of State.

The UDC actively contributes to the achievement of CG Strategic & Performance Goals by providing quick response to the uniform clothing needs of Coast Guard personnel.

## PHYSICAL PLANT

<u>Primary Build/Structure</u>	<u>Total Sq Ft</u>	<u>Leased Sq Ft</u>	<u>Description Of Use</u>
(1) Woodbine location	31,000	31,000	Warehouse
(2) Woodbine location	8,000	.....	Office Space (trailer)
(3) TRACEN Cape May location	12,000	.....	Warehouse & Issue areas
(4) TRACEN Cape May location	2,000	.....	Office Space

## CAPABILITY

(a) The UDC stocks the following uniform categories:

**Standard CG Issued Uniform Items** - Uniform items issued to everyone, i.e., *seabag issue* considered necessary for basic Coast Guard military activities

**Optional Uniform Items** - Uniform items which are *authorized* (but not mandatory) for use with Standard CG Issued Uniform Items. While such clothing is "authorized" for wear, a CMA is not provided. The member independently acquires the item and replaces it at his/her own expense. A commonly recognized example of an *optional item* is the popular "Wooly Pully" sweater.

**Uniform Accoutrements** - Uniform items such as collar devices, ribbons, qualification devices. e.t.c.

**Organizational Clothing** - Uniform items which are *unit owned and accountable* special purpose clothing and personal protective gear, *other than the standard government issue or optional uniform items authorized for regular uniform use* as described in the Uniform Manual which is issued to or bought by individual Coast Guard personnel. Such items properly defined and authorized, may be acquired with appropriated funds, specifically, AFC-30 funding.

(b) At present time the UDC processes an average of \$500K in uniform sales per month (FY 98 average \$350K), with an average of \$375K in recruit uniform issues per month (FY 98 average \$275K).



(c) The Coast Guard Uniform Distribution Center (UDC) is the primary source of uniforms for Coast Guard members worldwide, serves the Coast Guard forces of 7 foreign nations under State Department treaties, and is a secondary uniform source for some DOD Reservists. Customer base now exceeds 110,000. From FY97 to FY99, uniform sales and issues rose 50%. They have risen continuously since FY95, and now exceed the capabilities of UDC staff and funding. UDC needs 9 new positions and upgrades to existing positions in keeping with their actual duties and responsibilities. UDC needs additional funding for additional equipment maintenance requirements for approved non-standard computer software and support contract. UDC needs additional funding for the increased volume of telephone usage for uniform ordering which has exceeded original and revised estimates and for improved phone equipment capable of handling the increased volume of calls and for future growth. UDC has taken responsibility for managing the contract for recruit uniform alterations for the Recruit Uniform Initial Issue process. This new requirement adds tasking for UDC personnel and accountability for charges to AFC-01 funds for uniform alterations. It requires additional recurring and nonrecurring funding to provide the initial equipment and normal follow-on maintenance/upkeep. Due to increases in Coast Guard uniform supply support demand, UDC is able to fully meet the needs of the recruit uniform initial issue requirements but only by reducing support to field personnel by 15% to 20%. Further growth in demand for field support is anticipated as increased recruit throughput reaches the field.

(d) Funding has been provided for additional staffing and hiring is in progress to fill positions to offset customer service shortfalls and eliminate current and projected service gaps. Equipment to supplement and augment the additional personnel is funded in FY 2000 and is under procurement, further reinforcing the elimination of service gaps.

## FUNDING HISTORY

### Uniform Distribution Center (UDC) Past Funding:

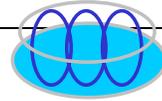
FY	Approp	Cost (\$K)	Overview of what was funded
96	AFC-30	\$150K (for 5 months only)	\$77K base + \$73K supplemental funding (UDC established as a new unit in FY 96, no prior base funding information exists)
97	AFC-30	\$200K	\$150K base + \$50K supplemental funding (1 <sup>st</sup> full year)
98	AFC-30	\$246K	\$186K base + \$60K for shipping costs
99	AFC-30	\$256K	\$186K base + \$70K for shipping costs
00	AFC-30	\$914K	\$186K base + \$500K FY00 C-stage + \$158K FY00 OPSTAGE request + \$70K for shipping costs

## CURRENT PERSONNEL ALLOWANCE

• :

Officer:	0
Warrant Officer:	0
Enlisted:	1
GS:	8
WG:	14
Contract:	0
TOTAL:	23

• Temporary Position: (1) W-4



**ASSET**

BASES

**MISSION(S)**

Section under development

CG STRATEGIC GOALS	SAFETY	PROTECTION OF NATURAL RESOURCES	MOBILITY	MARITIME SECURITY	NATIONAL DEFENSE
CG PERFORMANCE GOALS					

**PHYSICAL PLANT**

Section under development

**CAPABILITY**

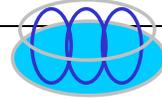
Section under development

**FUNDING HISTORY**

Section under development

**CURRENT PERSONNEL ALLOWANCE**

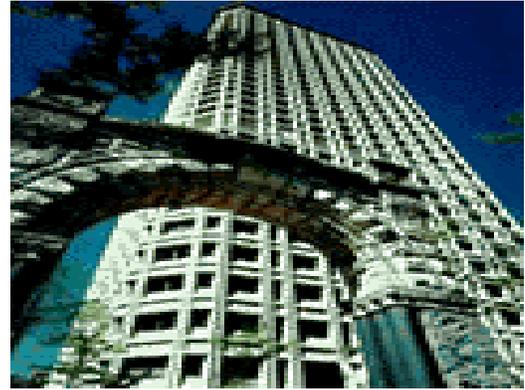
Section under development



## ASSET

### FACILITY DESIGN & CONSTRUCTION CENTERS

- Norfolk, VA
- Seattle, WA



FD&CC Pacific

Seattle, WA

## MISSION

The FD&CCs are engineering units which provide a full range of services in support of the Coast Guard Civil Engineering Program..

## PHYSICAL PLANT:

- (a) Multiple Site Unit
- (b) Total acreage: N/A
- (c) Number of buildings: 2
- (d) Total square footage: 24,523

(e)	<u>Primary Build/Structure</u>	<u>Total Sq Ft</u>	<u>Leased Sq Ft</u>	<u>Description Of Use</u>
	(1) FD&CC LANT	15438	15438	Office Space
	(2) FD&CC PAC	9085	9085	Office Space

## CAPABILITY

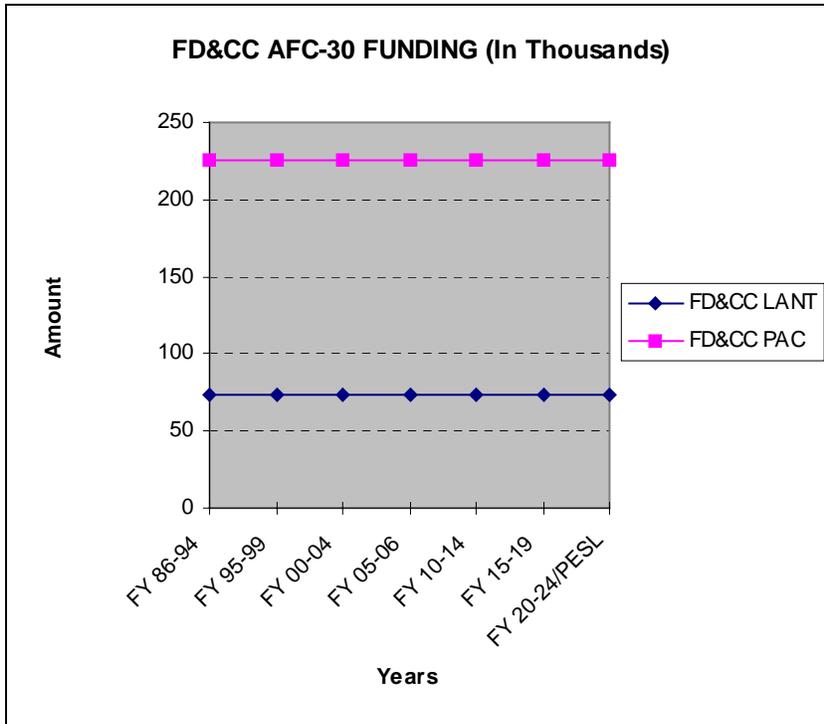
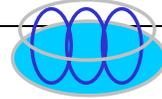
The FD&CCs currently provide all required planning, design, and execution services which construct, support, and maintain the shore plant of the Coast Guard. Currently FD&CC staffing is adequate and there are no deficiencies that need to be addressed in the next 2-5 years.

## FUNDING HISTORY

- (a) AC&I Appropriation: None. Both units are in leased office space.
- (b) Average annual OE costs. Budgeted AFC-30 only.

FY	FD&CC LANT	FD&CC PAC
99	\$65,000	\$229,000
98	\$71,821	\$256,600
97	\$82,966	\$283,725
96	N/A	\$281,835
95	N/A	\$300,000
AVG	\$73,262	\$225,193

Funding data provided by MLC(s). Data for LANT not available for FY95/96.



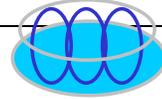
## CURRENT PERSONNEL ALLOWANCE:

### FD&CC LANT

Officer:	11
Warrant Officer:	1
Enlisted:	3
GS:	55
WG:	0
Contract:	0
<b>TOTAL:</b>	<b>69</b>

### FD&CC PAC

Officer:	11
Warrant Officer:	1
Enlisted:	1
GS:	36
WG:	0
Contract:	0
<b>TOTAL:</b>	<b>49</b>



## ASSET

### CIVIL ENGINEERING UNITS

- Providence, RI
- Cleveland, OH
- Miami, FL
- Oakland, CA
- Juneau, AK
- Honolulu, HI



CEU Miami

Miami, FL

## MISSION

The CEUs provide engineering services to the field which include design, contracting, construction management, environmental compliance and remediation, planning, and real property management services.

## PHYSICAL PLANT

- (a) Multiple Site Unit  
 (b) Total acreage: N/A  
 (c) Number of buildings: 6  
 (d) Total square footage: 52,976

(e)	<u>Primary Build/Structure</u>	<u>Total Sq Ft</u>	<u>Leased Sq Ft</u>	<u>Description Of Use</u>
(1)	CEU Providence	9475	9475	Office Space
(2)	CEU Cleveland	11080	11080	Office Space
(3)	CEU Miami	11149	11149	Office Space
(4)	CEU Oakland	10950	10950	Office Space
(5)	CEU Juneau	5540	5540	Office Space
(6)	CEU Honolulu	4782	4782	Office Space

## CAPABILITY

The CEUs currently provide all engineering service such as design, contracting, construction management, environmental compliance and remediation, planning, and real property management, with an emphasis on depot level maintenance to support the Coast Guard shore plant. Currently there are no gaps in the CEU's capability to deliver required products and/or services to the Coast Guard.

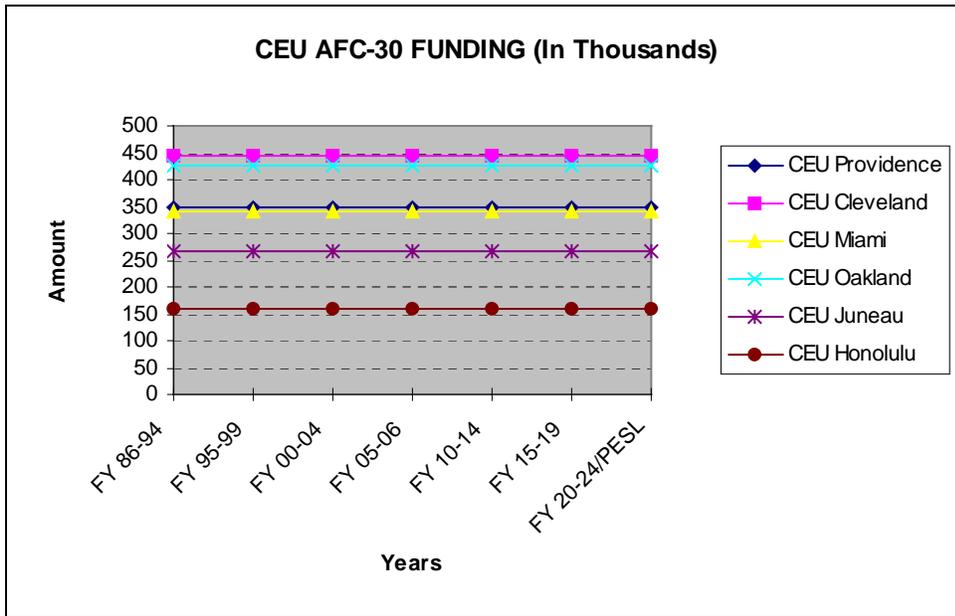
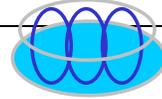
## FUNDING HISTORY

(a) AC&I Appropriation: All units are in leased office space.

(b) Average annual OE costs. Budgeted Costs: AFC-30 only

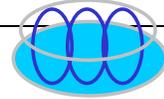
	CEU Providence	CEU Cleveland	CEU Miami	CEU Oakland	CEU Juneau	CEU Honolulu
99	\$345,992	\$395,109	\$369,867	\$345,000	\$235,000	\$133,000
98	\$341,066	\$440,794	\$311,118	\$356,900	\$254,400	\$96,500
97	\$359,059	\$496,475	\$338,393	\$452,400	\$252,635	\$153,400
96	N/A	N/A	N/A	\$477,142	\$283,369	\$197,133
95	N/A	N/A	N/A	\$500,000	\$300,000	\$215,000
AVG	\$348,705	\$444,126	\$339,792	\$426,288	\$265,080	\$159,006

Funding data provided by MLC(s). Data for LANT CEUs not available for FY95/96.



## CURRENT PERSONNEL ALLOWANCE

	CEU P	CEU C	CEU M	CEU O	CEU J	CEU H
Officer:	11	8	12	11	6	2
Warrant Officer:	1	1	1	1	1	0
Enlisted:	0	1	1	0	1	0
GS:	44	49	39	42	21	15
WG:	0	0	0	0	0	0
Contract:	0	0	0	0	0	0
<b>TOTAL:</b>	<b>56</b>	<b>59</b>	<b>53</b>	<b>54</b>	<b>29</b>	<b>17</b>



## ASSET

### NAVAL ENGINEERING SUPPORT UNITS

Locations:

#### ATLANTIC AREA

New Orleans, Louisiana  
Cleveland, Ohio  
Boston, Massachusetts  
Portsmouth, Virginia  
Charleston, South Carolina  
Miami, Florida

#### PACIFIC AREA

Seattle, Washington  
Honolulu, Hawaii  
Alameda, California



## MISSION

Naval Engineering Support Units provide engineering support services to cutters. These services include assistance with planning and execution of cutter repair periods and drydockings, assistance with unit level maintenance, and technical assistance with casualties. Selected NESU's provide similar support to the small boat community on a trial basis.

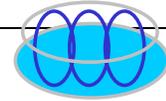
Each NESU has its own performance goals tuned to its specific customer base, geographic area, and local infrastructure. NESU performance goals are generally aligned with the goals of the respective MLC parent commands.

## PHYSICAL PLANT

There are multiple NESU sites. Facility data such as square footage is not reported here as these units are mostly tenants of various co-located commands such as Integrated Support Command (ISC) and Groups.

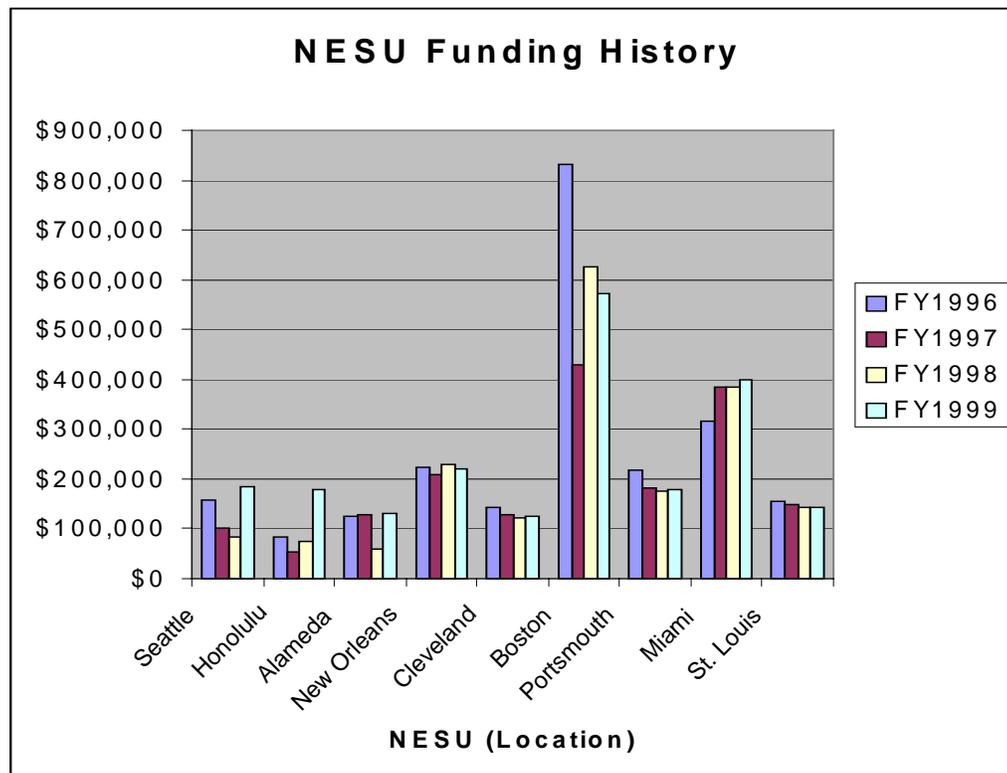
## CAPABILITY

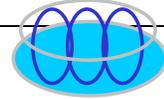
Naval Engineering Support Units provide support through two main services: (1) Maintenance Augmentation Teams provide on-board assistance with preventative and corrective maintenance, and (2) Port Engineers maximize platform mission readiness through efficient execution of cutter depot and intermediate level maintenance programs. NESUs currently are capable of fully meeting the existing service demand. However, with the commissioning of new cutters, NESUs will begin to suffer funding and personnel shortages unless appropriate increases to OE and personnel authorizations are implemented.



# FUNDING HISTORY

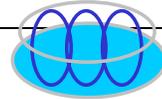
NESU Funding History				
AFC-30				
(Data Source - MLCP/A vad)				
NESU	1996	1997	1998	1999
Seattle	\$158,168	\$101,212	\$83,977	\$183,556
Honolulu	\$84,623	\$53,900	\$75,884	\$180,016
Alameda	\$124,739	\$129,563	\$58,291	\$132,556
New Orleans	\$224,674	\$207,300	\$228,525	\$221,328
Cleveland	\$142,223	\$126,800	\$123,000	\$124,683
Boston	\$831,035	\$428,139	\$626,139	\$573,375
Portsmouth	\$217,874	\$180,648	\$176,300	\$178,970
Miami	\$316,095	\$383,591	\$383,591	\$400,018
St. Louis	\$154,939	\$147,950	\$142,500	\$142,170





## CURRENT PERSONNEL ALLOWANCE

	<u>Officer</u>		<u>Warrant Officer</u>		<u>Enlisted</u>	<u>Total</u>
NESU Seattle	8		3	76	87	
NESU Honolulu	3		1	28	32	
NESU Alameda	5		1	39	45	
NESU New Orleans	8		3	26	37	
NESU Cleveland		3		2	6	11
NESU Boston	7		4	97	108	
NESU Portsmouth	6		7	97	110	
NESU Charleston	2		3	38	43	
NESU Miami	<u>4</u>		<u>5</u>	<u>64</u>	<u>73</u>	
	46		29		471	546



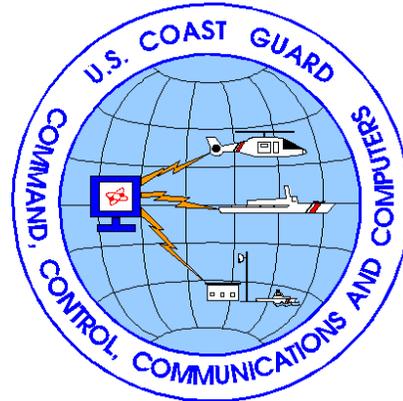
## ASSET

### ELECTRONICS SUPPORT UNITS

Locations: (see list under PHYSICAL PLANT)

## MISSION

Electronics Support Units (ESU's), Electronic Support Detachments (ESDs) & Electronic Support Detachment Detailed (ESDDs) provide primary maintenance support for electronic Command, Control, Communication and Computer (C4) systems for all units within the Coast Guard\*. The ESU is the only contact between field unit customers and the electronics division of the Maintenance & Logistics Command (MLC). ESU's also serve as technology business consultants and actively assist District and Area staff and command customers in defining and solving technology business problems. They are independent commands under the supervision of MLC (t). The ESU's can also perform electronic systems project and non-maintenance support on a time and funding-available basis. ESUs contribute to the accomplishment of the broader Coast Guard performance goals by ensuring that all shore and afloat units electronic systems in their AOR are fully operational.



\*Includes all electronic systems; computers, telecommunications, radio, navigation and sensor.

## PHYSICAL PLANT

Multiple Site Unit

<u>Primary Build/Structure</u>	<u>Total Sq Ft*</u>
(1) ESU Honolulu & Detachments	10,577
(2) ESU Seattle & Detachments	38,644
(3) ESU Kodiak & Detachments	9,400
(4) ESU Alameda & Detachments	26,400
(5) ESU Boston & Detachments	18,043
(6) ESU Portsmouth & Detachments	11,564
(7) ESU Miami & Detachments	26,668
(8) ESU Cleveland & Detachments	19,908
(9) ESU St. Louis & Detachments	not available
(10) ESU New Orleans & Detachments	14,450
	175,654

\* Approximate/Estimated Sq Ft.

## CAPABILITY

ESU/ESD/ESDD provide electronic support (CASREP response, corrective and preventive maintenance, project management and execution), Standard Workstation II and III support and telephone support to field units. Currently, personnel shortages and training are the number one and two issues hindering adequate support to the field. There are four primary issues:

### **Workforce Shortage -**

Although recruiting efforts continue, personnel shortages create extended billet vacancies. Vacancies eventually are filled with recent inexperienced Class 'A' graduates who require 6 to 12 months of training to become fully qualified. Fully trained personnel are filling higher priority billets on ships and at LORAN Stations.

### **Streamlining -**

Post streamlining staffing was adequate to meet existing demands. Since then ESU responsibilities have significantly increased with little to no additional resources to adequately sustain mission readiness. Currently critical projects and casualty reports (CASREPs) are consuming personnel resource hours at the expense of



preventive maintenance. This will create a long term increase in electronic casualties, reduced operational availability, and increased operational costs. Studies have shown that equipment casualties have increased 42% over the past one and half years and that Mean Time to Repair (MTTR) has increased 48% over the past 3 years. These increases are a direct result of the shortage of qualified personnel.

**Training** - The training required to maintain and repair electronic systems is often overlooked. The new systems being deployed are more advanced. They are more computer and software intensive than the older systems, requiring additional advanced specialized training that is not provided in Class "A" school. Without the proper training, the mean time to repair a piece of equipment increases, directly reducing operational availability.

**Increased workload - SWIII, Telephone Support, DGPS,**

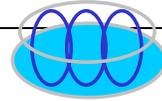
The most significant workload increase is the migration and support of SWIII. Currently, there is approximately 1 technician per 177 workstations. The industry standard is 1:70. This does not take into account CG-wide installation of Local Area Networks (LANs) and WSIII hardware support of the legacy SWII system. Another significant workload increase is telephone support. Unit and personnel increases since streamlining have not resulted in a corresponding increase in telephone support personnel.

**FUNDING HISTORY:**

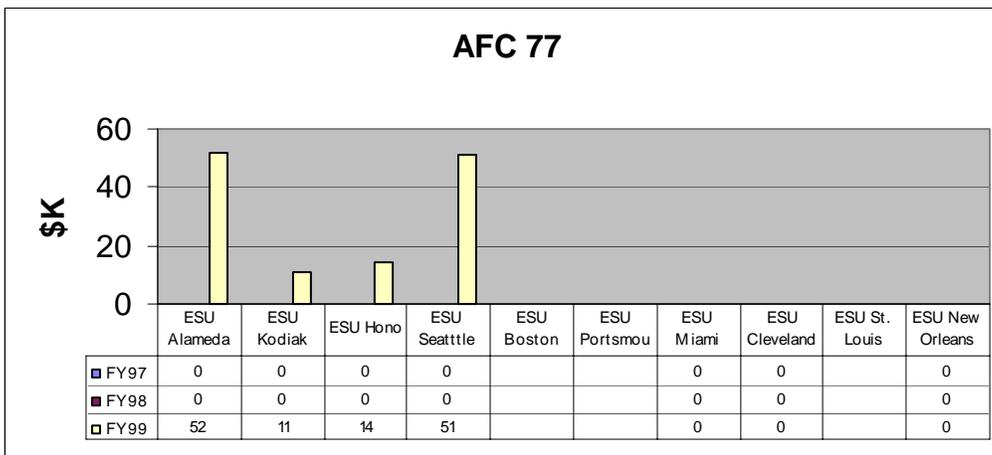
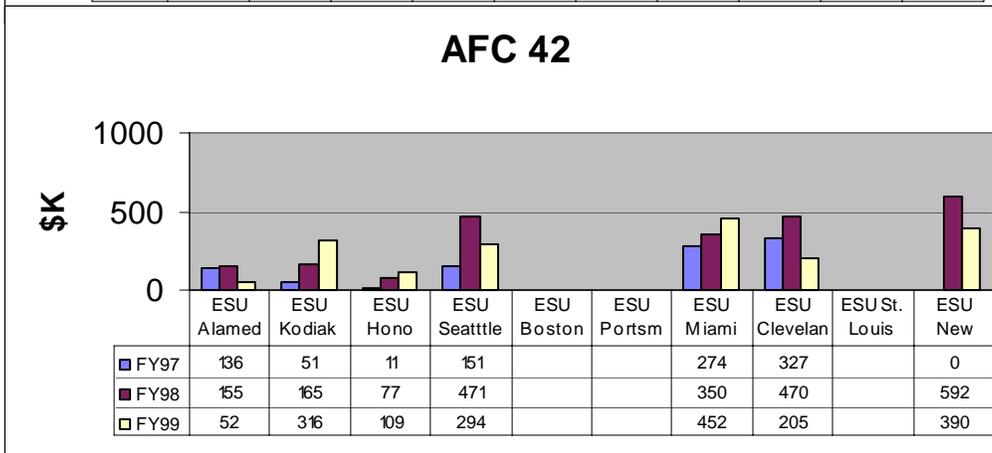
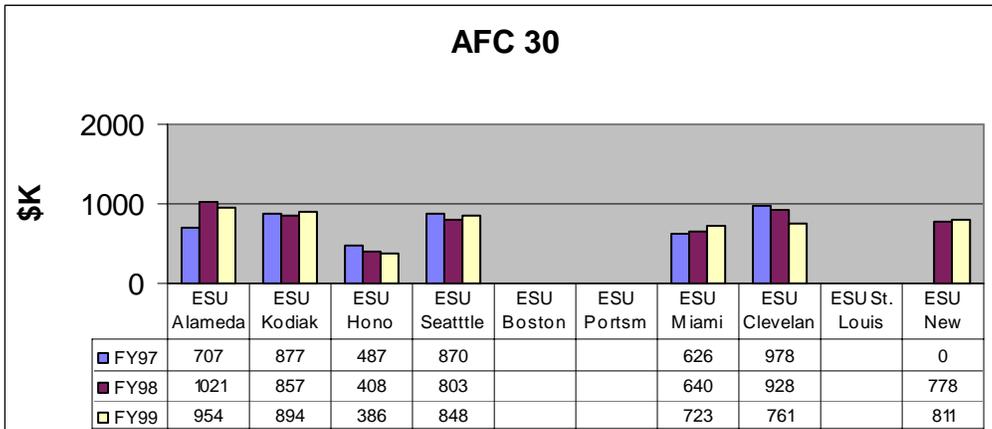
(a) AC&I Appropriation - Not Applicable.

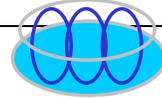
(b) Average annual OE costs: Budget costs include OE funding provided to the respective ESD and ESDD for each ESU.

<u>Unit</u>	AFC 30(\$K)			AFC 42(\$K)			AFC77 (\$K)		
	FY97	FY98	FY99	FY97	FY98	FY99	FY97	FY98	FY99
(1) ESU Honolulu	487	408	386	11	77	109	0	0	14
(2) ESU Seattle	870	803	848	151	471	294	0	0	51
(3) ESU Kodiak	877	857	894	51	165	316	0	0	11
(4) ESU Alameda	707	1021	954	136	155	52	0	0	52
(5) ESU Boston	NA								
(6) ESU Portsmouth	NA								
(7) ESU Miami	626	640	723	450	450	452	0	0	0
(8) ESU Cleveland	978	928	761	327	470	205	0	0	0
(9) ESU St. Louis	to be updated								
(10) ESU New Orleans	NA	778	811	NA	592	390	-	-	-
NA: Not available									



(c) Funding history.

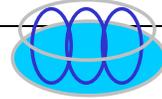




## CURRENT PERSONNEL ALLOWANCE:

	Officer	WO	Enlisted	GS	WG	Contract	<u>Total</u>
(1) ESU Honolulu	3	1	23	6	0	4	37
(2) ESU Seattle	3	3	42	13	0	22	83
(3) ESU Kodiak	3	2	46	4	0	6	61
(4) ESU Alameda	6	3	41	8	0	19	77
(5) ESU Boston	5	7	97	9	4		122
(6) ESU Portsmouth	5	6	100	6	3		120
(7) ESU Miami	5	5	81	7	10		108
(8) ESU Cleveland	4	5	73	7	4	3	96
(9) ESU St. Louis	2	2	25	3	0		32
(10) ESU New Orleans	5	6	64	5	0		80

Note: Numbers include associated ESD and ESDD



## ASSET

### RECRUITING OFFICES

CG Recruiting Center (CGRC) and 104 Recruiting Offices

Locations:

- CGRC in Arlington, Virginia
- Recruiting Offices throughout the U. S., Puerto Rico, and Guam

## MISSION(S)

Recruit qualified young men and women to serve in the United States Coast Guard.

Unit Performance Goals: To recruit the selected number of qualified people to serve in the Coast Guard (achieve and sustain complete military readiness within the Coast Guard's workforce.)

## PHYSICAL PLANT

- (a) Single Site Unit or Multiple Site Unit? **103** Sites including CGRC in Arlington
- (b) Total acreage: **N/A**
- (c) Number of building: **103**
- (d) Total square footage: **114,632**

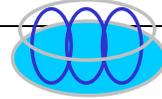
(e)	<u>Primary Build/Structure</u>	<u>Total Sq Ft</u>
	<b>103</b>	<b>114,632</b>

(f) Tenant Command(s): Coast Guard Personnel Command

## CAPABILITY

The ability to produce has remained constant as the Coast Guard has increased its demand for new recruits during FY99. 125 Recruiters have been added and 37 new offices will be opened by 1 Nov 1999. Funding for FY00 is still not fully known. If adequate funding is not available, it will affect CGRC ability to recruit sufficient numbers of individuals.

Efforts continue to relocate recruiting office in locations highly visible to the public and to co-locate with DOD recruiters.



## FUNDING HISTORY

(a) AC&I Appropriation

AC&I Facility Project Funds by FY (From digging the hole to ribbon cutting)

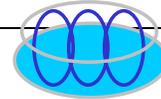
<u>FY</u>	<u>APPROPRIATED/ALLOCATED</u>
96	\$1,100,000
97	\$1,100,000
98	\$1,100,000
99	\$1,100,000
00	\$1,100,000 plus requested OPSTAGE and C-STAGE funding.

AC&I Improvements & Upgrades by FY (capital improvements >= \$200K)

<u>FY</u>	<u>UPGRADES/IMPROVEMENT</u>	<u>APPROPRIATED FUNDING</u>
99	Added 37 new recruiting offices	\$509K non-recurring

## CURRENT PERSONNEL ALLOWANCE

Officer:	10
Warrant Officer:	4
Enlisted:	410
GS:	3
WG:	
Contract:	77
TOTAL:	501



## ASSET

STANDARD WORKSTATION III (SWIII)

## MISSION

The current SWIII system incorporates all aspects of the Coast Guard's microcomputer infrastructure including hardware (servers, workstations, printers and peripherals), local area networks, and software (operating system, office automation suite, e-mail, forms, anti-virus, and metering software). The SWIII infrastructure is based on open system standards and is the backbone of computing capabilities for support and operational units of the Coast Guard.

The SWIII system provides the IT infrastructure to support the following CG strategic goals: S1: Save all mariners in distress. S3: Eliminate crewmember fatalities on US commercial vessels. P3: Eliminate the adverse impacts of pollution. M1: Maximize vessel mobility within ports and waterways. C1: Reduce the flow of drugs by denying maritime smuggling routes. N1: Achieve and sustain complete military readiness

The SWIII system provides the IT infrastructure to host applications packages which are critical to meeting the CG's performance goals. These application packages include: the Search and Rescue Management Information System (SARMIS), the Marine Information Safety, the Law Enforcement System (MISLE), the Aids to Navigation System (ATONIS), the Law Enforcement Information System (LEIS) and the Mobilization and Readiness System. Additionally, the SWIII system supports the broader business goal of increasing the effectiveness of CG assets while minimizing lifecycle costs.

## CAPABILITY

The SWIII system provides the IT infrastructure of standard microcomputer hardware and software to support the administrative and business information needs of the Coast Guard. The SWIII system implements a CG-wide standard architecture of servers and workstations that are tied together by local area networks within a CG site, and connected CG-wide through the Coast Guard Data Network (CGDN+). This architecture coupled with the use of standard software including Microsoft Windows NT 4.0, MS Office Professional 97 and MS Exchange Mail 5.5 enable the exchange of e-mail CG-wide, and the passing of standard documents and data throughout the CG. The SWIII office automation suite provides a robust set of personal productivity tools which includes a highly functional platform for running mission essential applications and other enterprise applications. The SWIII system enables the use of the Internet resources for CG users in the performance of their jobs. The SWIII system also affords the maritime community and the public access to CG information provided on the world-wide web through the use of Internet servers via appropriate firewall security protection. Token based remote access technology is used to provide secure remote dial-in capabilities for CG personnel from travel or home locations.

The SWIII system affords a robust desktop platform for employee productivity and running some business application software. Currently the SWIII baseline is a Pentium 75 machine; the latest acquisitions are P400s with CDROMs. The deployment of Mission Essential Applications (MEAs) beginning with LUFs NT in FY99 has demonstrated the need to upgrade the desktop CPU power and RAM from the P75 baseline to ensure performance. Similarly, the original P100 servers will need to be replaced in the near future to ensure the reliability and performance of the SWIII system. User demand for software that is not part of the SWIII standard software package is managed by the SWIII configuration management process. The SWIII system is in the early stage of developing WEB-based applications to meet CG and public information access needs.

Future CG business information needs will require additional use of WEB based applications, resulting in continued expansion of the bandwidth required on the CGDN+. The reliance on computer systems to deliver productivity improvements such as the use of electronic commerce with vendors, the expanded interchange of data between DoD and other government agencies, and the need to provide larger amounts of information to the maritime public will drive the implementation of several technologies that are in the early stages of development. These technologies include digital signature, use of voice recognition systems, use of anti-intrusion technology to maintain security and the use of smaller, sub-laptop devices such as Palm Pilots for data collection. The data network infrastructure will



need to keep pace with the growth of WEB based applications. DoD's implementation of the Defense Messaging System (DMS) requires that the CG implement at least an interface capability with DMS.

The Coast Guard is in the final phase of migration to the Standard Workstation III system. The SWIII replaces the obsolete 1980's technology of the CG Standard Workstation II (CGSWII) proprietary Convergent Technologies (CTOS) microcomputers (286 and 386 CPU vintage) and LANs. SWIIIs will be deployed to virtually all shore units by December 1999. Prototypes for SWIII installation on the white hull cutters will commence in October 1999 with the goal to complete migration to all cutters by 01 October 2000. While one of the critical elements of migration has been to maintain interconnectivity between the SWIII and CGSWII systems, those units who have not yet migrated are using systems that do not afford the same degree of productivity software or access to WEB-based information sources.

The architecture of the SWIII system is server based to provide the most effective delivery of standard software and support services. The original servers will need to be replaced prior to their scheduled replacement date of FY01. Purchasing large capacity, fault tolerant servers in order to more economically consolidate support at large administrative sites and provide added reliability and performance is a budget issue for FY00. A second issue is the continuing need for configuration management. The success of the SWIII system rests on maintaining effective configuration management of the baseline hardware and software. Balancing the need for standards with the individual units' and programs' needs for custom applications requires active commitment of both the architectural and support components of the SWIII program.

The newest SWIII workstations are Pentium 400 MHz machines with 128 MB RAM, CDROM drives and 4.3 GB hard drives. These machines offer a quantum leap in performance over the CGSWII CTOS technology, while costing significantly less than the 1980s technology. The P400 machines also provide a significant improvement in performance over the initial SWIII P75 which cannot efficiently run enterprise applications that use sophisticated Windows features and database technology. The P400s also provide CDROM capability at the desktop to enable use of computer based training, manuals, technical publications and other documentation that is now provided only in CDROM format.

Microcomputer technology continues to advance at an extremely rapid rate. The largest market players such as Intel, IBM and Microsoft have driven the lifecycle of hardware and software down to three years. Due to budgetary constraints, the Coast Guard plans to replace its servers and workstations on a more austere five year cycle.

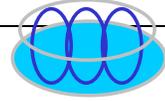
## FUNDING HISTORY

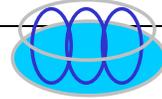
SWIII system acquisition has been phased from FY95 through FY00. The following are annual hardware and software acquisition costs. HW & SW purchases have been funded by OE AFC 30 funds. Recabling has been funded by AFC 30 (FY95 - FY97) and AFC 42 (FY98 - FY00)

	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00</u>
HW & SW	\$15.2M	\$15.2M	\$19.0M	\$15.9M	\$14.9M	\$10.4M
Recabling LANs	\$ 1.2M	6.3M	\$16.5M	\$ 9.0M	\$8.2M	\$3.3M

History of major maintenance or upgrade investments, average annual O&M cost related to preserving capability. The SWIII migration is scheduled for completion on 01 OCT 2000. Industry functional life is 3 years.

Budgeted Costs:	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00</u>
Contractor Support:	0	\$1.1M	\$4.0M	\$5.2M	\$10.5M	\$12.3M
O&M Costs: \$1.0M	\$1.9M	\$0.6M	\$1.3M	\$1.5M	\$2.8M	
SWIII Replacement:	0	0	0	0	\$4.0M	\$1.0M





## ASSET

### FINANCIAL SYSTEMS

Refer to list below for the systems, projects and initiatives that comprise this class of assets. Capital Programming Profiles have been submitted for each of these systems and may be viewed (through the electronic version of this page) by clicking on the hyperlink below.

- [Executive Information – Corporate Database 3/PGB](#)
- [FINCEN Total System – CFO Audit Discrepancy Abatement](#)
- [Financial Desktop – EC/EDI](#)
- [FINCEN Total System – Project Management System](#)
- [FINCEN Total System \(FIRM\)](#)
- [Executive Information – GPRA](#)
- [Financial Desktop – IBUDS/AFTS](#)
- [FINCEN Total System – Integration of the Consolidating Systems](#)
- [Financial Desktop – LUFS NT](#)
- [Financial Desktop – Budget Execution to Expenditure \(MBE\)](#)
- [Financial Desktop – DAFIS Management Information Reporting \(MIR\)/FAFO](#)
- [National Pollution Funds Center Expert Management Information System \(NEMIS\)](#)
- [Executive Information – Performance and Results Executive Information System \(PREIS\)](#)
- [FINCEN Total System – Remote Imaging System-Data Warehouse](#)
- [Financial Desktop – Source Automation \(End User\) Systems](#)

## MISSION(S)

A centralized information system integrating operational, administrative and financial systems to support finance and procurement, accounting, budget, property and inventory.

(a) Strategic and Performance Goals supported:

Strategic Goals:

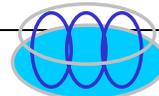
Safety  
 Mobility  
 Economic Growth & Trade  
 Human & Natural Environment  
 National Security  
 Human Resources  
 Resource & Business

Performance Goals:

The goal is to provide the Coast Guard the business information it needs on operational activity and assets to better support decision making and enhance program effectiveness. Specific Goals are listed below:

- (1) One time data entry 100% of the time.
- (2) Access to current financial and procurement data available 95% of time.
- (3) Implement single, integrated finance and procurement systems.
- (4) Develop single finance and procurement management system fully integrated with the Department of Transportation.
- (5) Access by all users to the integrated system.

(c) Inventory/description of how asset contributes to achievement of performance goals/capabilities:



## CAPABILITY

Currently there are many different information systems that facilitate budgeting, financial reporting, accounting and cost accounting, fraud control, procurement, and contract monitoring in the U. S. Coast Guard. These systems are broken down into three key sub-groups: Executive Information Systems, Financial Desktop (source systems), and Finance Center Total System (data processing/data warehousing). Under the Financial Desktop, there are currently seven separate systems that interface with several other programs' systems. There are over sixteen separate systems within the Finance Center Total System. Currently there are two Executive Information Systems (Corporate Database (CDB) and Program Budget (PGB)). Many of these systems are being integrated electronically to reduce duplicate data entry and to ensure data integrity. In addition, much effort is underway to convert legacy systems to the current Coast Guard operating environment as well as to remediate year 2000 deficiencies. To reduce life cycle costs and increase system access to authorized users, web enabling of these systems is also being studied. Listed below are examples of specific systems and how they provide information to facilitate budgeting, financial reporting, accounting and cost accounting, and procurement.

### (1) Executive Information System (Corporate Database and Program Budget)

The Executive Information System (EIS) provides reporting functionality for source data from Coast Guard feeder systems on the Financial Desktop and from data processing and storage systems from the Coast Guard's Finance Center's Total System to allow queries and produce reports for analysis by senior decision makers. The EIS is composed of two interactive sub-systems - Corporate Database and Program Budget - which contain summary level, corporate financial data required for development of the Coast Guard's Congressional Budget Submission. In addition, these systems support calculation of standard rates and cost allocation for the organization. These systems provide a source for query of corporate financial, operational, and personnel assets data in a multi-dimensional database across several domains.

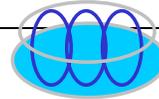
#### Specific Projects under Executive Information Systems

- **Corporate Database 3/PGB**
- **GPRA** This system will build upon CDB/PGB and the FINCEN Total System program to tie the traditional program budget structure with GPRA outcomes. The program connections are not discrete because CG is a budget structure with GPRA outcomes. The program connections are not discrete because CG is a multi-mission organization. A mix of program activities contributes to each of the strategic goals. This system will relate expenditures to GPRA outcomes.
- **Performance and Results Executive Information System (PREIS)** PREIS is the end state Executive Information System integrating GPRA and CDB3/PGB allowing a central decision support system for senior CG management. This system would allow complete project management and cost tracking. PREIS will enable senior managers to view the entire 4D Budget Model including PPA (Program, Projects, and Activities), AFCs (Allotment Fund Codes), Object Classifications, and Program Budget/GPRA goals.

### (2) Financial Desktop

The Financial Desktop is a collection of field systems that support budget distribution, procurement, and funds management. A number of applets reside in the Financial Desktop. These systems provide field users with the appropriate suite of integrated tools that minimize data entry and permit efficient stewardship of Coast Guard resources. These field systems generate the source information that feeds the Coast Guard financial management program. Two key Financial Desktop systems are the Integrated Budget Development System/Automated Funds Transfer System (IBUDS/AFTS) and the Large Unit Financial System (LUFFS).

The Integrated Budget Development System (IBUDS) is a software program that supports the Coast Guard budget process by providing automated support for receiving and processing Resource Change Proposals (RCPs). The system is used for generating and submitting the Coast Guard budget from development of the Congressional Stage budget through the Operational Stage budget. It distributes the Congressionally approved budget to the Administrative Target Units (ATUs) and generates spend plans. The Automated Funds Transfer System (AFTS) is an automated tool used to process funds transfers within the Coast Guard, distributing initial funding to Coast Guard operating elements after the funding process is completed and managing funding transfers that occur during budget execution.



IBUDS/AFTS combines planning, programming, and budgeting functions into a single automated, streamlined system for managing funds. IBUDS/AFTS automates, simplifies, and standardizes the entry of ATU budget line item requests and decreases the time required for the funds transfer process. The system eliminates the need for re-keying and reconciliation of funding documents between offices. It also reduces the need for telecommunications by providing a capability for batch processing of fund transfer updates to the core accounting system. IBUDS/AFTS replaced the manual preparation and tracking of Financial Transfer Authorizations (FTAs) and Change in Financial Plans (CIFPs). The AFTS sub-system automates the distribution of funding information generated through IBUDS to Coast Guard field units.

The Large Unit Financial System (LUFS) is the Coast Guard's procurement and funds management software. LUFS is used throughout the Coast Guard at Unit, Group, District, and Headquarters offices as a tool to develop procurement actions and to report, commit, and obligate funds. LUFS is used for the transmission of financial and procurement data to the Coast Guard Finance Center (FINCEN) for update to the Departmental Accounting and Financial Information Systems (DAFIS) (core accounting system) and automates the reconciliation of DAFIS balances with local ledger accounts maintained in LUFS. LUFS also interfaces with other Coast Guard mixed information systems that use LUFS as their financial management and transmission vehicle.

#### Specific Projects under Financial Desktop

- **IBUDS/AFTS**
- **LUFS-NT**
- **DAFIS Management Information Reporting (MIR)/FAFO**

Management Information Reporting (MIR) is a modern ORACLE financial data warehouse and management information reporting system developed initially by DOT, providing remote users real time access to DAFIS financial data via an easy to use graphical interface. Planned extensions include improving reporting capabilities by adding Coast Guard unique details and summaries, adding canned reports, and customizing the graphic interface for Coast Guard use. MIR as well as Corporate Database (CDB) support the data warehouse project as crucial sources of financial source and meta-data. MIR implementation will provide financial managers with real-time access to financial data.

- **Electronic Commerce/Electronic Data Interchange (EC/EDI)**

FINCEN has established a successful and growing electronic commerce program for electronic invoice billing at the Coast Guard Finance Center. This initiative is to extend EC/EDI to the procurement community. A study is underway to plan integration with other Coast Guard financial/procurement applications and implementation of digital signature standards in LUFS-NT and IBUDS/AFTS.

- **Budget Execution to Expenditure**

The enhanced capability to link the budget to actual expenditures is currently scheduled for addition to IBUDS/AFTS and LUFS-NT in FY01.

- **Source Automation (End User) Systems**

This initiative will integrate all of the applets on the financial desktop ensuring an efficient flow of information through the desktop. This automation will improve the integrity of data and eliminate redundant entries. This integration will tie in existing systems such as FARA/CGAMS/CIMS (PROCUREMENT FUNCTIONALITY), CMplus, CEDS, and ORACLE Assets and Projects.

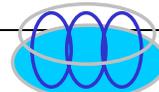
### (3) **Finance Center Total System – Data Processing/Data Warehousing**

The Finance Center (FINCEN) Total System provides the centralized consolidation of the source data collected through the Financial Desktop. The Total System is built on ORACLE Financial products and databases. The goal of the Total System is to provide centralized and integrated data warehousing that supports all of the needs of Coast Guard senior financial managers. The FINCEN Total System involves the integration of all the financial systems at FINCEN. All accounting, bill paying, and asset management systems are currently being integrated as well as the source information for the Chief Financial Officers Act audit purposes. The Total System is composed of many sub-systems.

#### Specific Projects under FINCEN Total System

- **CFO Audit Discrepancy Abatement**

This project's primary goal is to build a database of imaged documents which supports the ownership and valuation of Coast Guard fixed assets. The database will be compatible with the imaging system employed at



FINCEN (170 Systems - Markview) and be indexed so that the data can be retrieved. This is the leading effort in establishing FINCEN as the financial repository for the Coast Guard.

- **Project Management System**

The goal of this system is to provide the bridge between project management and financial accounting. This system will collect all cost associated with a specific project. This system will also add project related construction-in-process costs. Upon completion of the work the asset will be capitalized and the asset data will flow directly into the asset management database. All of the information necessary to support ownership and valuation will be captured at the source. This system will serve as the database of all electronic source/data entry points to track projects utilizing a more robust accounting string.

- **Remote Imaging System – Data Warehouse**

This effort complements the previous project to rectify CFO discrepancies. This initiative will provide the software and hardware for the field to process the information directly to the FINCEN. It will also provide the means for the field to have remote access into the FINCEN. This project will provide the system by which the data warehouse is populated and accessed.

- **Financial Information Resource Management System (FIRM)**

The Finance Center IRM System (FIRM) provides the Coast Guard with a consolidated accounting and bill paying office. Savings accrue through the consolidation of one central billing office to accomplish accounting and payment transactions for the Coast Guard. FINCEN systems such as the LUFs File Processing System (LFPS), Workflow Imaging Network System (WINS), and Consolidated Billing System (CBS) enable the Coast Guard to electronically process and track field financial transactions and vendor invoices. LFPS is a paperless process that electronically receives and processes incoming LUFs batches from the field for input into DAFIS and routing into WINS for matching with vendor invoices prior to payment. The Imaging System will allow multiple users to interactively retrieve, control, and process financial and correlating source data and nearly eliminate the need to manually manipulate paper source documentation. The Debt Management and Collection System (DMACS) is a commercial off the shelf system (ORACLE Accounts Receivable) that will enable the Finance Center to better manage the Coast Guard's accounts receivables. ORACLE Assets serves as the Coast Guard's asset management system tracking all Coast Guard assets and calculating depreciation for capital assets.

- **Integration of the Consolidated Systems**

This effort is the final step in creating the Total System at FINCEN. This involves the integration of all the financial systems at FINCEN. All accounting, bill paying and asset management systems will be integrated, as well as source information for CFO/DOT audit purposes.

Currently, all these separate financial and mixed financial information systems are not fully integrated in accordance with legislative and OMB guidance to meet the reporting requirement of the CFO Act and Government Performance and Results Act (GPRA). The Commandant has made it one of his top goals to pass the CFO Act audit in FY 1999 and to continue to do so in follow-on years. Also, the Government Performance and Results Act (GPRA) will place greater demands on Coast Guard's information systems to meet performance based reporting requirements. The Coast Guard has made significant gains in integrating these financial and mixed financial information systems via use of commercial off-the-shelf software (ORACLE Financials) and establishing data interchange standards, a common operating system, and a single integrated data network.

Several information systems not owned by the CFO are critical to meeting organizational system information goals. The two Inventory Control Points (ICPs), the Aircraft Repair and Supply Center (AR&SC) and Engineering Logistics Center (ELC), the Coast Guard Yard, and the Coast Guard personnel system have separate systems that do not directly interface with the current executive reporting and financial information systems. In addition, many other programmatic feeder systems do not interface with the financial information systems. The challenge is to integrate these systems to meet the reporting requirements of the CFO Act and GPRA while realizing savings from applying technology and minimizing separate and redundant systems.

(4) **National Pollution Fund Center Expert Management Information System**

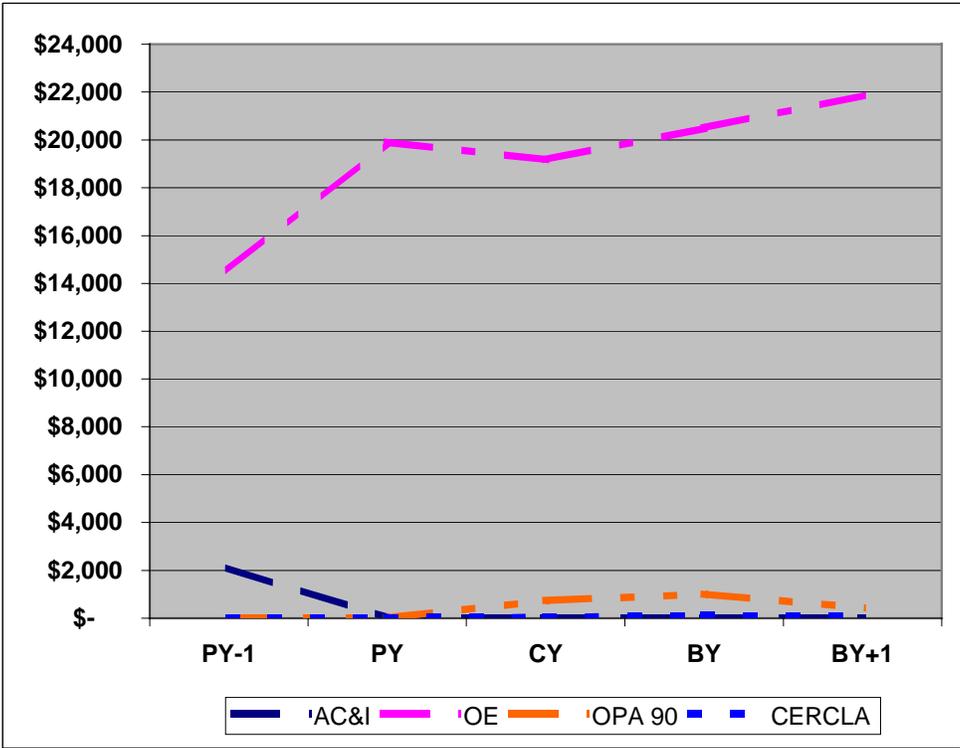
An additional system included on the Financial Systems Inventory page is the National Pollution Fund Center's (NPFC) Expert Management Information System (NEMIS). NEMIS is the overarching IRM system under development, which independently supports and integrates the business lines of NPFC. It provides the platform by which case team members can interactively participate during the prosecution of pollution cases. It provides a system



for the management of the vessel certification function and the adjudication of third party claims. NEMIS provides the platform for NPFC's intranet by which all NPFC employees have access to NPFC's Strategic Business Plan, internal Standard Operating Procedures (SOPs), Coast Guard and NPFC instructions, executive information, policy and legal guidance, and other shared data. It permits the management staff to measure and analyze statistics for the purposes of internal and external reporting, IG audit preparation and workload reallocation and distribution. It provides the tools through which GPRA measurements and progress toward GPRA goals can be measured and evaluated; tools which are critical to accomplishing NPFC's Total Quality Initiatives, especially for providing superior customer service through continuous process improvement. The scope of NEMIS is significant in that it supports NPFC's management of the billion dollar Oil Spill Liability Trust Fund and every source of income and expense coming into and out of the Fund.

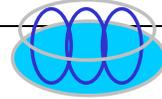
### FUNDING HISTORY

The funding profile for Financial Systems (including NEMIS) is as follows (see individual Capital Programming Profile sheets for breakouts):



(In \$ thousands)

APPN.	PY-1	PY	CY	BY	BY+1
AC&I	\$ 2,100	\$ -	\$ -	\$ -	\$ -
OE	\$ 14,550	\$ 19,913	\$ 19,172	\$ 20,491	\$ 21,861
OPA 90	\$ -	\$ -	\$ 726	\$ 1,008	\$ 418
CERCLA	\$ -	\$ -	\$ 37	\$ 100	\$ 50
Total	\$16,650	\$ 19,913	\$ 19,935	\$ 21,599	\$ 22,329



## ASSET

### LOGISTICAL SYSTEMS

Refer to list below for the systems, projects and initiatives that comprise this class of assets. Capital Programming Profiles have been submitted for each of these systems and may be viewed (through the electronic version of this page) by clicking on the hyperlink below.

- [Aviation Computerized Maintenance System \(ACMS\)](#)
- [Aviation Logistics Management Information System \(ALMIS\)](#)
- [Aviation Management Information System \(AMMIS\)](#)
- [Automated Requisitioning Management System \(ARMS\)](#)
- [Aviation Technical Information Management System \(ATIMS\)](#)
- [Civil Engineering Data System \(CEDS\)](#)
- [Configuration Management Unit Level System \(CMPlus\)](#)
- [Fleet Logistics System \(FLS\)](#)
- [Naval Engineering – Technical Information Management System \(NE-TIMS\)](#)
- [Supply Center Computer Replacement \(SCCR\)\\*](#)

\*(CPP not available)

## MISSION

The primary mission of the Coast Guard logistics program is to provide logistics support encompassing all of the activities associated with developing, acquiring, testing and sustaining all Coast Guard operating assets (shore, aviation, and vessel) to ensure safe and effective use throughout the asset's service life. A comprehensive logistics program will ensure assets are properly maintained and available to perform Coast Guard Missions including Search and Rescue, Law Enforcement, Marine Environmental Response, International Ice Patrol, and Aids to Navigation.

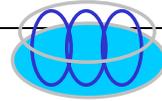
The software applications (assets listed above) enable the operational units to effectively meet the 5 Strategic Goals of the Coast Guard by providing configuration and maintenance management, inventory control, and requisitioning support to the programs. The automated data and decision support tools allow more efficient and cost-effective management of Coast Guard assets facilitating reduced operational costs while potentially increasing the availability of these assets. The creative use of Leading Edge Technologies has enabled the Coast Guard to convert legacy data and integrate electronic files from other sources. Huge libraries of files, which are time consuming and difficult to update will be replaced by several CDs with up-to-date maintenance information.

## CAPABILITY

The integrated suite of logistics applications supports the following functions: budget and execution management, requisitioning, wholesale and retail inventory management, procurement, including federal stock transactions, fiscal accounting, disbursing, warehousing, shipping, and receiving. It enables asset managers to efficiently manage their procurement, inventory management, engineering, and depot maintenance functions. It will facilitate enterprise-wide real time visibility of ordered, received, and stored inventory and critical parts.

One segment of the suite provides a view of automated maintenance schedules, maintenance tracking, maintenance requirements definition, projections of maintenance due, and records of completed maintenance. It also provides, actual asset configuration management including part numbers and serial numbers, consumable and hazardous material usage, and allows analysis of maintenance effectiveness.

One specific functional element allows engineering and support personnel to manage, access, and use technical information using a timely and efficient automated process, with accurate and current data facilitating improvements in the cost of operations. These functional elements provide access to four basic areas of technical information: (1) technical publications, (2) drawings, (3) provisioning technical documentation, and (4) general reference library.

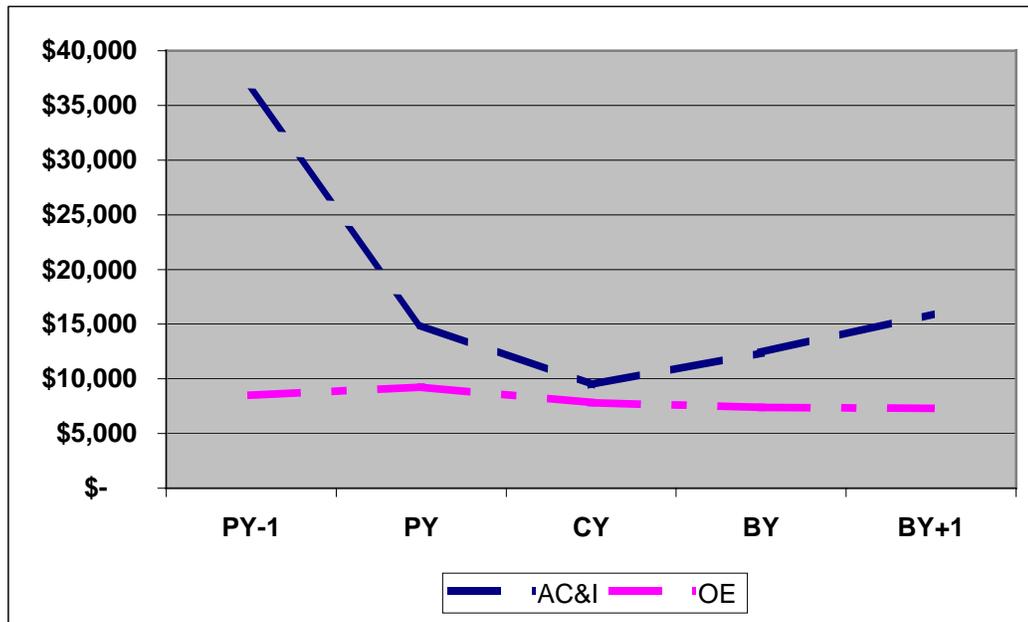


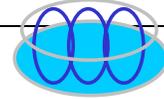
## FUNDING HISTORY

The funding profile for Logistical Systems is as follows (see individual Capital Programming Profile sheets for breakouts):

(In \$ thousands)

APPN.	PY-1	PY	CY	BY	BY+1
AC&I	\$ 36,166	\$ 14,916	\$ 9,469	\$ 12,400	\$ 15,900
OE	\$ 8,495	\$ 9,238	\$ 7,835	\$ 7,400	\$ 7,300
Total	\$ 44,661	\$ 24,154	\$ 17,304	\$ 19,800	\$ 23,200





## ASSET

### HUMAN RESOURCE (HR) SYSTEMS

Refer to list below for the systems, projects and initiatives that comprise this class of assets. Capital Programming Profiles have been submitted for each of these systems and may be viewed (through the electronic version of this page) by clicking on the hyperlink below.

- [U. S. Coast Guard Academy Information System \(ACADIS\)](#)
- [Civilian Personnel Information Management System \(CIVPMIS\), Civilian Unified Pay System \(CUPS\), Integrated Pay and Personnel System \(IPPS\)](#)
- [Office of Health and Safety Resource Information System \(KRIS\)](#)
- [Personnel Data System \(PDS\)](#)
- [Personnel Management Information System/Joint Uniform Military Pay System \(PMIS/JUMPS\)](#)
- [Personnel Management Information System/Joint Uniform Military Pay System II \(PMIS/JUMPS II\)](#)
- [Ship Control and Navigation Training System \(SCANTS\)](#)

## MISSION(S)

The Human Resource systems provide proper accounting for and management of military and civilian personnel and associated payroll earnings and entitlements. Therefore, HR systems support the morale, health and welfare of the personnel who directly accomplish Coast Guard missions.

## CAPABILITY

**Military:** The Coast Guard has three integrated systems that provide military human resources and payroll support. There's a transaction oriented system, Source Data Automation II (SDA II) at 49 sites worldwide that captures payroll and personnel information. Transactions include recording: 1) training completion, 2) arrival at a duty location and 3) changes in pay. SDA II feeds these transactions to a batch system, the Personnel Management Information System/Joint Uniform Military Pay System (PMIS/JUMPS), which records this information and produces payroll products and personnel data extracts. On a weekly update cycle for PMIS/JUMPS the personnel extracts are sent to SDA II and another system used by the Coast Guard's centralize personnel management activity. This system is the Personnel Data System (PDS). PDS is an interactive system used for assignment, performance evaluations, training assignment, and personnel funds tracking (healthcare, transfer, training and salary).

The PDS system tracks performance evaluations. Evaluations are made available to assignment officers as a factor in assigning enlisted members to job vacancies via computer desktop workstations. Evaluations are used in the promotion processes as a factor in determining who will be promoted. On an annual basis evaluation data is reviewed to ensure the evaluation process is under statistical control and achieving the results intended.

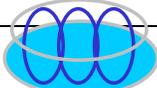
In the training PDS applications are used to assign people to resident and non-resident training to prepare them for future assignment and to cover gaps at Coast Guard units caused by attrition.

SDA II is used in the hiring process to collect testing information and the rudimentary base personnel information.

PMIS/JUMPS and PDS data is extracted and used very heavily in projecting work force needs. Several models are in place to provide analysts with predictive models and monitoring models.

**Recruiting:** The Coast Guard uses forms software to collect data for inprocessing to print onto paper forms and receives prospect information electronically. Recruiting also uses a simple system to schedule recruits for indoctrination training.

**Civilian:** The Coast Guard uses a DOT system to track and pay civilians. The system is very basic generally only used to collect basic personnel and payroll information. Although facilities exist to record training and evaluations they are



not used (too burdensome). The Coast Guard does use an automated position classification system and does advertise for vacancies using the World Wide Web (WWW).

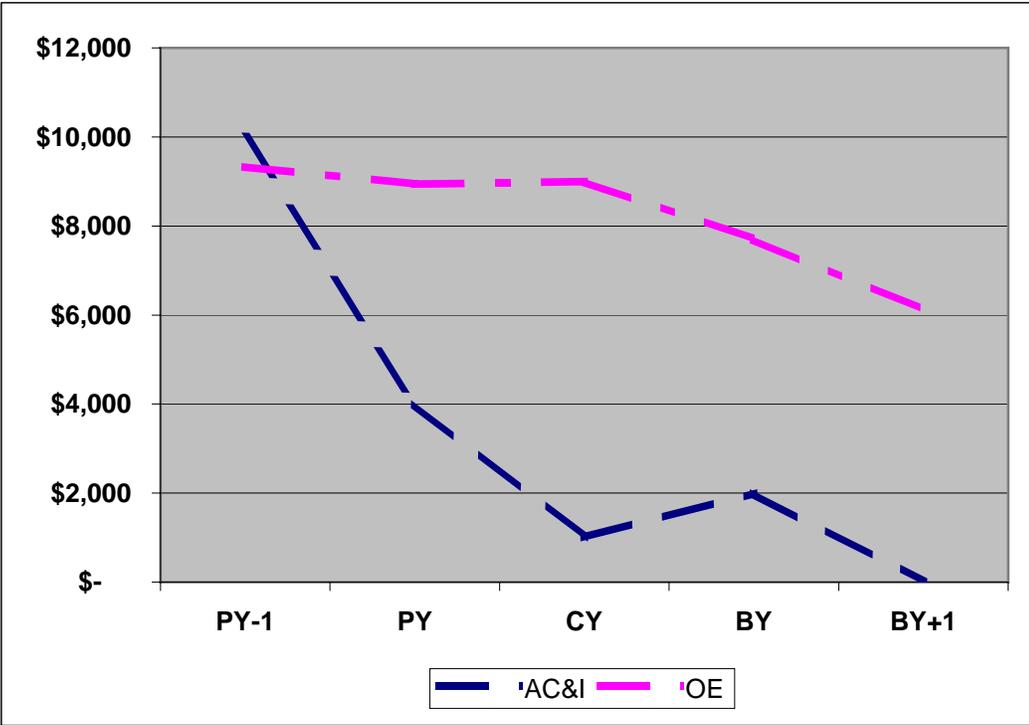
The Coast Guard does use two systems to track personnel and report vacancy status and monitor payroll costs. These systems are used to monitor the work force more that to plan the workforce.

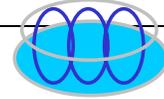
### FUNDING HISTORY

The funding profile for Human Resource Systems is as follows (see individual Capital Programming Profile sheets for breakouts):

(In \$ thousands)

APPN.	PY-1	PY	CY	BY	BY+1
AC&I	\$ 10,000	\$ 4,000	\$ 1,000	\$ 2,000	\$ -
OE	\$ 9,325	\$ 8,939	\$ 8,999	\$ 7,699	\$ 6,105
Total	\$ 19,325	\$ 12,939	\$ 9,999	\$ 9,699	\$ 6,105





## ASSET

### INFORMATION TECHNOLOGY (IT) INFRASTRUCTURE

Refer to list below for the systems, projects and initiatives that comprise this class of assets. Capital Programming Profiles have been submitted for each of these systems and may be viewed (through the electronic version of this page) by clicking on the hyperlink below.

- [Coast Guard Data Network/Coast Guard Data Network Plus \(CGDN+\)](#)
- [Coast Guard Software Application Conversion \(CGSWAP\)](#)
- [Coast Guard Standard Workstation II \(CGSWII\)](#)
- [Communications Station System 2000 \(CS2K\)](#)
- [Leased Network Services Through The Defense Information Telecommunication Certification Office \(DITCO\)](#)
- [Defense Messaging System \(DMS\)](#)
- [District Seventeen VHF-FM High Level Site Upgrade Phase III \(D17 VHF-FM\)](#)
- [Frequency Spectrum Reallocation \(FSR\)](#)
- [Federal Telephone Service 2000 \(FTS2000\) & FTS2001](#)
- [Transition Global Maritime Distress and Safety System \(GMDSS\) Phase V](#)
- [Low Power HF Transceiver Replacement \(GSB-900 Replacement\)](#)
- [Message Interface, Transition and Automation Project \(MITAP\)](#)
- [Handheld VHF-FM DES Radio Replacement Project \(MX-300 Replacement\)](#)
- [VHF-FM DES Radio Replacement Project \(MCX-1000 Replacement\)](#)
- [Commercial Satellite Communications \(SATCOM\)](#)
- [Switched Voice Replacement Project \(SVRP\)](#)

## MISSION(S)

Technology and services provided by IT Infrastructure will enable and facilitate Coast Guard's software applications, telecommunications (long and short-range), and information management activities. IT Infrastructure supports all aspects of Coast Guard's Mission Areas and Business Processes. Consequently, all Strategic and Performance Goals are directly and indirectly supported.

## CAPABILITY

IT Infrastructure serves as the corporate backbone upon which Coast Guard's IT initiatives are enabled, whether it be through technology (hardware and software) or IT management (service contracts, information management techniques). This "Class" runs the gamut from telecommunications contracts, electronics suites, and standardized computer platforms to corporate initiatives to modify and migrate mission critical applications to the new standard workstation environment. Overall, the capability provided is adequate or better. In the near future it is anticipated that the migration to the new Coast Guard Data Network Plus (CGDN+) will provide even more robust telecommunication services. Also, Coast Guard's potential changeover to a "Seat Management" omnibus service contract would alleviate the costly and complex needs for ongoing computer hardware, software and support services.

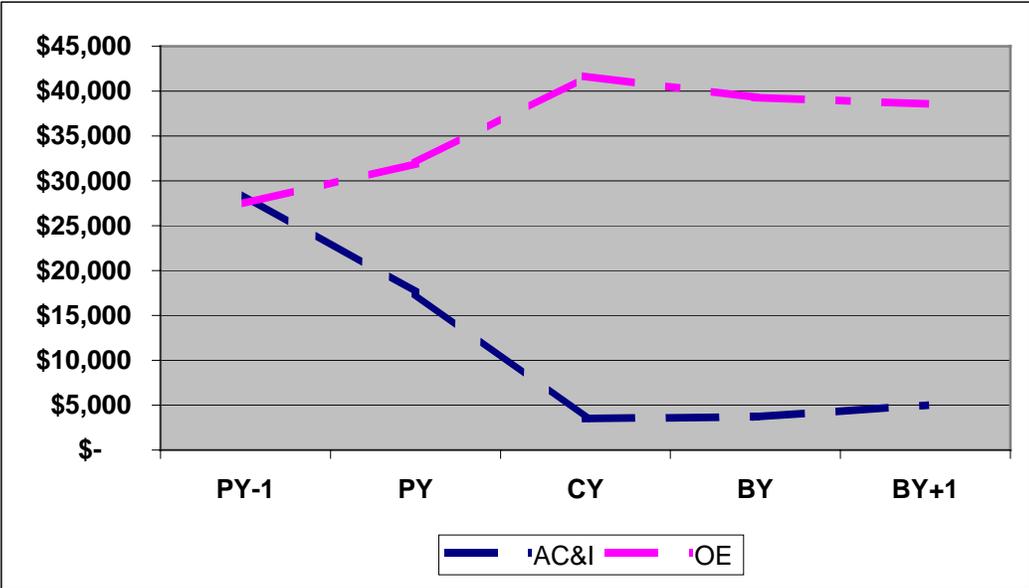


# FUNDING HISTORY

The funding profile for IT Infrastructure is as follows (see individual Capital Programming Profile sheets for breakouts):

(In \$ thousands)

APPN.	PY-1	PY	CY	BY	BY+1
AC&I	\$ 28,387	\$ 17,527	\$ 3,512	\$ 3,677	\$ 5,004
OE	\$ 27,486	\$ 31,965	\$ 41,654	\$ 39,276	\$ 38,575
Total	\$55,873	\$49,492	\$45,166	\$42,953	\$43,579



# APPENDIX B:

## PROJECTS APPROVED, FUNDED AND UNDERWAY

### Overview

This chapter provides a general overview of the Coast Guard's currently funded major acquisitions. This information may be carried forward into Appendix C (projects approved, seeking funding) if the project requires FY2001 funds to continue or complete. The information is also carried forward to the Long Range Resource Allocation Plan (LRRAP), Appendix D if the project extends beyond FY2001.

The information on specific projects contained in this section is presented in either of two ways: a generic project summary sheet (one for each project) that describes the project, its history, the mission it will support when brought on line, and the funding profile. The funding information is based on project baselines contained in FY 2000 or earlier budgets, although in some cases it may be presented as a component of a larger project (multi-year funding, segments of a larger class of assets, or precursor to a major project) and thus listed as a range (as in Deepwater). These pages are included because they reflect the ongoing nature of many of the **major** acquisition projects and show the sequencing of key business decisions and funding.

MAJOR ACQUISITION PROJECT	PAGE
National Distress and Response System	B-3
87 Foot Patrol Boat (WPB Replacement Project)	B-8
Maritime Information for Safety and Law Enforcement (MISLE) Project	B-11
Surface Search Radar Replacement Project	B-16
Seagoing Buoy Tender Replacement Project	B-19
Polar Icebreaker Replacement Project	B-22
Deepwater Capability Replacement Analysis	B-24
Great Lakes Icebreaking Replacement Project	B-26
Ports and Waterways Safety System (PAWSS)	B-30

Table B-1: Major Acquisition Projects Approved, Funded and Underway

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Agency: U. S. Coast Guard Bureau: Acquisition Directorate Name of project: <b>NATIONAL DISTRESS AND RESPONSE SYSTEM MODERNIZATION PROJECT (NDRS)</b> New Project _____ Ongoing Project <u> X </u> Is this project information technology? Yes <u> X </u> No _____ For
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***JUSTIFICATION AND OTHER INFORMATION***

**A. Justification**

The Coast Guard operates and maintains a National Distress System (NDS) to provide VHF-FM radio coverage in coastal areas out to 20 nautical miles offshore; and for all large bodies of inland waters such as Puget Sound, Chesapeake Bay, and US waters of the Great Lakes; and navigable waterways where commercial or recreational traffic exists. The primary function of the NDS is to support the CG in its Search And Rescue (SAR) responsibility. The secondary function is to provide command and control communications for CG units performing Maritime Safety, Maritime Law Enforcement, National Security and Marine Environmental Protection, and Defense Readiness missions. NDS is an integral part of the CG Telecommunication System (CGTS). Twenty years of expanding mission functional requirements and technology advances have outstripped the NDS's ability to meet the CG's current and future multi-mission communications requirements. The modernized NDRS needs to improve or provide the following communications capabilities: (1) meet the coverage requirements for distress alerting and coordination; (2) allow CG forces to respond to crisis operations and provide sufficient surge capacity to support multiple operations; (3) aid in searches for vessels that do not know their position, or report it incorrectly, and assist in the prosecution of hoaxes; (4) meet the international requirement for short range Digital Selective Calling (DSC); (5) be able to withstand most natural disasters; (6) provide multi-channel and instant play back recording capability; (7) allow operational commanders to economically meet expanding command and control (C2) requirements and communicate with deployed units throughout their operating area; (8) allow communications with federal, state and local government agencies; (9) protect the transmission of sensitive information; and (10) allow operational units to collect and disseminate marine safety information, intelligence and environmental monitoring/compliance data to/from mariners.

Technologies exist which can meet the expanded National Distress and Response System functional communications requirements and which can be fully integrated into the Coast Guard's next generation telecommunications architecture. The project objective is to develop and deploy a fully integrated communications system to permit distress, safety, law enforcement, marine environmental protection and national security communications between Coast Guard, commercial vessels, other government agencies, and/or recreational boaters. This project (NDRS) will modernize the National Distress System and bring the Coast Guard into compliance with the 1988 amendments to the international Safety of Life at Sea (SOLAS) Convention, of which the United States is a contracting party. The solution to be implemented is a modernization of the existing system. The equipment necessary for vessels, aircraft, stations, groups, and other users will be identified.

Benefits include more efficient mission response primarily through position localization; improved reliability and supportability; expanded capacity; network-wide secure internal communications; full compliance with the international requirement for short range DSC; and improved wide area VHF-FM coverage. Improvements should also be realized in signal quality and data connectivity.

The project's outcomes support the Coast Guard's Strategic Goals of Maritime Safety, Protection of Natural Resources, Mobility, Maritime Security, and National Defense, and are closely aligned with the Commandant's Direction (particularly: Service – Standing the Watch; Excellence – Innovating for Superior Performance; Vision – Seize the Future).

**B. Program management**

1. Is there a project manager and contracting officer devoted to the project? Yes.
2. Will an Integrated Product Team be established to assist with the management of the project? Yes. The Coast Guard employs a matrix team approach.

**C. Acquisition strategy**

A Systems Integration (SI) contractor will be selected through innovative, full and open competition procedures. The SI contractor will be responsible for the detailed design, prototyping, testing, production and deployment of the system. The project is currently seeking Coast Guard senior management approval to change the acquisition strategy

from a Cost-Plus-Award-Fee vehicle to a modular Fixed Price contract vehicle. Phase I of the project will award Design Demonstration and Validation work to up to 3 System Integrator Contractors (SIC) (possibly teams). Phase I is projected to be awarded in 3<sup>rd</sup> quarter FY 00. Phase II will be limited competition, among the SICs that participated in Phase I, for the Full Scale Development and Production and Deployment work (Initial Operating Capability through Full Operating Capability).

**D. Financial basis for selecting the project**

1. The project completed Concept Exploration in April 1999 and is in the Design Demonstration and Validation phase. The project has been reviewed and approved by the Coast Guard's investment review board. Cost Benefit Analysis, analysis of alternatives, and analysis of Life Cycle Cost Estimate were completed during Concept Exploration. The project will improve mission performance in support of the Coast Guard's GPRA goals, as well as the Coast Guard's and DOT's Strategy and performance goals .

**E. Adherence to architecture and infrastructure standards**

1. (Describe how the project is compliant with the agency's IT architecture and technical infrastructure). The NDRS Modernization Project seeks to maximize mission performance and flexibility by ensuring consistency with international and national system performance goals and standards, including those of the International Maritime Organization (IMO), the Public Safety Wireless Network (PSWN), Project 25, and other national standards.
2. (Identify standards for info exchange and resource sharing.) These standards will be addressed in the performance-based specification and statement of work.
3. (Demonstrate adherence to government-wide standards, where applicable (such as Y2K).) Year 2000 capability is not an issue; Initial Operational Capability is forecast for FY03.
4. (Identify use of commercial-off-the-shelf software (COTS) versus custom; justify custom components.) The NDRS Modernization Project is designed to maximize off-the-shelf technology and standardize equipment in the field, thus reducing total life-cycle costs. The current National Distress System began with 1970s technology which has undergone several incremental modifications in the past twenty years in order to meet expanding mission needs. The NDRS Modernization Project will ensure that this vital communications network will meet the needs of the maritime community in the 21<sup>st</sup> century.

***COST, SCHEDULE AND PERFORMANCE GOALS***

**A. Description of performance based system:**

As a major systems acquisition in the Coast Guard, the NDRS Modernization Project will have an Acquisition Project Baseline (APB). Approval of the APB establishes "top level" objectives and thresholds on cost, schedule, and performance which the Program Manager (PM) must meet or exceed. The purpose of the APB is to provide control to prevent unit cost growth and "requirements creep" due to unnecessary system configuration changes or the imposition of new, unapproved operational requirements. Changes to the APB will only be made under extreme circumstances. The project achieved KDP 2/3 (April 1999) under an acquisition strategy that used a Cost-Plus-Award-Fee vehicle. Hence, an APB was established and is shown below. Note however that the project is currently seeking Coast Guard senior management approval to change the acquisition strategy to a modular Fixed Price contract vehicle (as described in 2.C Acquisition Strategy). If the revision to the acquisition strategy is approved, then the APB thresholds will be appropriately revised. Any actual or anticipated change or "breach" to a Project's ceilings or thresholds must be reported, along with proposed corrective action and a new, proposed APB, via a Project Deviation Report (PDR), prepared by the PM, to the Administration Acquisition Executive (AAE) for the Coast Guard.

Given the nature and scope of the work, it is envisioned that the awarded Phase II contractor will provide Cost and Schedule Status Reports (CSSR) based on an Earned Value System. These reports will allow the Coast Guard to examine the contractor's cost and schedule estimates, variances, and projections for completion.

**B. Original baseline:**

1. Cost and schedule goals:

<b>Cost (Then Year Dollars)</b>	<b>F. Range</b>	
Acquisition (AC&I)	\$200M	\$250M

Cost Baseline for upcoming phase.

<b>Full Scale Development (Then Year Dollars)</b>	<b>G. Range</b>	
Requirements Definition, Preliminary and Critical Design, Prototype Development, Developmental and Operational Testing (AC&I)	\$25M	\$35M

Schedule

<b>Critical Events</b>	<b>Range</b>	
KDP 2/3	Q2FY99	Q3FY99
Contract Award	Q3FY00	Q1FY01
Design Completion	Q3FY01	Q1FY02
Initial Operational Capability	Q3FY02	Q1FY03
KDP 4	FY02	FY03
Full Operational Capability	FY05	FY06

2. Performance goals:

<b>PARAMETER</b>	<b>THRESHOLD</b>	<b>OBJECTIVE</b>
Communication Area Coverage	Greater of 20NM or existing coastal coverage and designated navigable waterways	Greater of 50NM or existing coastal coverage and designated navigable waterways
Communication Interoperability	Supports communications between Coast Guard assets, Maritime Customers and Mission Partners	Same as threshold
Distress Communications	Provide a continuous and uninterrupted guard to receive distress and emergency alerts (CH16 and 70) ashore	Same as threshold
VHF-FM Voice Communications	Provide 2 voice channels (VHF-FM)	Same as threshold
Voice and Data Communications	Provide 4 voice/data (9.6Kbps) channels	Data transfer speed greater than 9.6Kbps
Information Protection	Provide protection for the transmission of sensitive but unclassified (SBU) voice and data	Same as threshold
Asset Tracking	Provide asset tracking on designated assets	Provide asset status information
Caller ID	Provide identification of calling party	Same as threshold
Marine Information Broadcast	Automate transmission of broadcast	Same as threshold
Interface with CGTS	Provides interface with CGTS	Same as threshold
Position Location Area of Coverage	≥ 20 nautical miles and designated inland waterways	Out to communications coverage
Position Location Accuracy	≤ 25 square nautical miles or 1 Line of Bearing on a brief signal	Within 0.1 nautical miles

Homing	Provide homing for designated assets on line of sight distress, calling and homing frequencies	Provide homing for designated assets on all line of sight frequencies
System Monitoring and Management	Provide system monitoring of critical and major system components	Same as threshold
Recording	Record all voice and data communications in Communications and Operations Centers of Groups/Activities and designated units	Provide same function aboard Coast Guard cutters 87ft and larger
Archiving	Archive unclassified communications at commcens/opcens of CG Groups/Activities	Same as threshold
Retrieval	Provide instant playback of unclassified communications at commcens/opcens of CG Groups/Activities	Same as threshold

PARAMETER	THRESHOLD	OBJECTIVE
Average operational availability on a monthly basis within a specified geographic area (Distress communications)	0.9995	Same as threshold
Average operational availability on a monthly basis within a specified geographic area (Other non-protected communications)	0.995	Same as threshold
Average operational availability on a monthly basis within a specified geographic area (Shoreside VHF-AM and UHF non-protected communications)	0.975	Same as threshold
Automated AIS Switching	Provide automatic switching for AIS and on-demand position reporting in accordance with ITU-R Rec M.[8C/8A]	Same as threshold
Survivability	Up to and including a 50 year storm event	Severe weather up to and including a Category 3 hurricane or typhoon
Recoverability	Restoration within 6 hours for distress communications; within 12 hours for other critical functions; and within 7 days for all other functions after passage of greater than 50 year storm event	Same as threshold
Manpower and Staffing	Required staffing for operations and support does not exceed current or planned staffing levels (although it is recognized the LCCE that maintenance contract cost may increase)	Same as threshold
Human Performance Support [Training, Human System Interface and Human Factors]	Training methodology provides level of knowledge necessary to support the system operation. Human System Interface is optimized for best human performance	Same as threshold
Safety	System is safe to maintain and operate	Same as threshold
Security	System prevents unauthorized electronic intrusion	Same as threshold
Environmental Conditions	System operates in environmental conditions defined by the communications area of coverage	Same as threshold

Open Systems Architecture	Use of well defined, widely available hardware/software	Same as threshold
Scaleability	Allows incorporation of future technological advances	Same as threshold

**C. Current baseline:**

1. Cost and schedule goals: Same as original.
2. Performance goals: Same as original.

**D. Variance from current baseline:**

1. Variance in cost: N/A
2. Variance in schedule: N/A
3. Variance in performance: N/A

**E. Latest revised Estimate:**

1. Cost and schedule goals: N/A
2. Performance goals: N/A

**F. Corrective Actions: N/A**

Agency: U. S. Coast Guard Bureau: Acquisition Directorate Name of project: <b>87 FOOT PATROL BOAT (WPB) REPLACEMENT PROJECT</b> Check one: New Project _____ Ongoing Project <u> X </u> Check one: Is this project information technology? Yes _____ No <u> X </u>
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**JUSTIFICATION AND OTHER INFORMATION**

**A. Justification:**

The current 82-foot patrol boat fleet entered the service in 1960 and began to reach the end of their economic service life during the 1990 time frame. This patrol boat was designed as a dedicated search and rescue (SAR) resource. With an emphasis placed on enforcement of laws and treaties (ELT) within the last decade, the patrol boat evolved into a multi-mission resource. These cutters currently perform various missions including ELT, SAR, port security, coastal and harbor patrols. Without replacement, the existing fleet of patrol boats will not be capable of meeting mission needs, particularly in the areas of drug interdiction, fisheries enforcement, and search and rescue.

Further life extension of the 82-foot patrol boat fleet was considered and rejected, because of the age of the boats. Structural failure due to material fatigue is the driving concern.

**B. Program management:**

1. Is there a project manager and contracting officer devoted to the project? Yes
2. Will an Integrated Product Team be established to assist with the management of the project? Yes. The Coast Guard employs a matrix team approach to project management. The matrix team includes representatives from Coast Guard Acquisitions, Naval Engineering, Operations, and other offices and field organizations. In addition a Project Resident Office (PRO) has been established at the contractor site which oversees day to day engineering, logistics and contracting details.

**C. Acquisition strategy:**

The acquisition strategy combines a non-developmental item with a parent craft approach. Salient features include using a performance based Circular of Requirements (COR); an industry design; and Small Business Set Aside (SBSA) determination. The purpose of this acquisition is to procure a cost-effective, low-technical-risk replacement for the entire fleet of 82' WPBs in a timely manner. The boat being acquired takes full advantage of state-of-the-market technology. This acquisition allows for a timely replacement of the Point Class Patrol Boats as they have begun to reach the end of their economical service lives.

The method of contracting used was a competitive, negotiated, Firm Fixed Price with Economic Price Adjustment (FFP w/EPA) contract with award to the best value proposal. The EPA provides for adjustment based on cost indexes of material and labor. Sealed Bids and Two Step Sealed Bids were not considered because the customer identified cost as being less important than technical performance.

**D. Financial basis for selecting the project.**

A Cost Benefit Analysis (CBA) study (August 1993) was conducted to merge mission analysis and cost analysis to show the cost benefits of each alternative. The major finding of this CBA was that either a 25M (alternative B of the study) or a 27.5M (alternative C of the study) provided the greatest mission effectiveness at the lowest total life cycle cost. A Life Cycle Cost Estimate was done in May 1998 to update the results of previous studies.

The alternatives considered were: (1) Extending the life of the Point Class 82' Patrol Boats; (2) Reconnaissance Systems or Aircraft; (3) Surface Effect Ships or Catamarans; and (4) Monohulls. The first option was rejected because of the age of the 82' Patrol Boats. The second option was rejected because the Mission Needs Statement stated that a surface vessel was needed to carry out the required missions. The third option was rejected because of expected higher life cycle costs and higher technical risk.

**COST, SCHEDULE AND PERFORMANCE GOALS**

**A. Description of performance based system:**

The WPB contract (Firm Fixed Price with Economic Price Adjustment) employs a derivative of an earned value system by utilizing the data generated from the contractor's accounting system. Financial information is generated monthly by the contractor along with requests for progress payments. The information is then compiled by the contracting officer and compared with major milestones and physical percentage of completion. The ultimate objective of this method is to ensure that physical completion is commensurate with the amount of project funds expended. Finally, the CG Project Resident Office technical staff provides the contracting officer with an assessment of physical percent completion on a monthly basis to compare with the contractor's values.

**B. Original baseline:**

		(millions)									
		Prior to									
		FY97	97	98	99	00	01	02	03	04 and beyond	Total
1.	Cost <sup>1</sup>	24-34	73-105	95-137	95-137	95-137	0	0	0	0	382-550

<sup>1</sup> Cost based on a range of 43-50 boats.

2. Schedule:

Low Rate of Initial Production (LRIP)	FY97 Q2
IOC	FY98 Q1
Key Decision Point 4 (KDP4)	FY98 Q2

3. Performance:

Speed	25 knots
Range	900 NM
Endurance	72 hours
Draft	6 feet or less
Design Life	25 years
Sea keeping	Patrol in Sea State 5
Crew Size	10
Towing	200 tons
Underway Operations	1500 hrs/year minimum

**C. Current baseline:**

Change #1 to the Acquisition Project Baseline (APB) was approved on 1 November 1995. As indicated in the preliminary Mission Analysis, the requirement for 87 Foot Patrol Boats (WPB) ranges from 31 to 51 boats. The contract has options to build up to 51 boats. Deputy Secretary approved fleet size of 50 WPBs on 31 August 1999.

1. Cost <sup>2</sup>	12-22	37-67	48-87	48-87	48-87	0	0	0	0	193-350
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<sup>2</sup> Based on a range of 31-51 boats.

2. Schedule:

Low Rate of Initial Production (LRIP)	FY98 Q2
IOC	FY99 Q1
Key Decision Point 4 (KDP4)	FY99 Q2
Construction Complete	FY02 Q3

3. Performance: Performance goals remain the same as the original baseline.

**D. Variance from current baseline:**

1. Cost: The current cost estimate is \$107.4M below the current baseline for 50 boats.
2. Schedule: Current estimate is within baseline goals. Overall project remains ahead of schedule.
3. Performance: The ship meets or exceeds all baseline performance goals.

**Latest revised estimate:**

		(millions)									
		Prior to									
		FY98	98	99	00	01	02	03	04	05 and beyond	Total
1.	Cost	45.9	63.0	103.7 <sup>3</sup>	1.0	7.0	0.0	0.0	0	0	220.6

<sup>3</sup> Includes \$66.1M received through 2 counter-drug supplementals.

2. Schedule:
  - LRIP award FY97 Q4
  - IOC FY98 Q3
  - KDP-4 FY99 Q1
  - Construction Complete FY02 Q4
  
3. Performance:
  - Speed 25+ knots
  - Range 900+ NM
  - Endurance 72 hours
  - Draft 5.67 feet
  - Design Life 25 years
  - Sea keeping Patrol in Sea State 5
  - Crew Size 10
  - Towing 200 tons
  - Underway Ops 1800 hrs/year

F. Corrective Actions: None

G. Required Actions: None

Agency: U. S. Coast Guard Bureau: Acquisition Name of project: <b>MARITIME INFORMATION FOR SAFETY AND LAW ENFORCEMENT PROJECT</b> Check one: New Project _____ Ongoing Project <u>X</u> _____ Check one: Is this project information technology? Yes <u>X</u> No _____
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## JUSTIFICATION AND OTHER INFORMATION

### A. Justification:

The MISLE project satisfies the legislative mandate of Public Law (PL) 100-710 which requires the establishment of a nationwide vessel identification system and the modernization of maritime commercial instruments and liens processing; the Port and Tanker Safety Act, and the Oil Pollution Act of 1990. MISLE provides replacement systems for the Marine Safety Information System (MSIS) and the Law Enforcement Information System (LEIS). MSIS hardware and software are technologically obsolete, difficult to maintain, and increasingly unable to support Coast Guard missions. The Vessel Identification and Documentation System (VIDS) must be developed since there is no existing systems that can satisfy the requirements of PL 100-710. The Law Enforcement Information System II (LEIS II) will be integrated with Marine Safety Network (MSN) and VIDS to provide cross - functional support to the Coast Guard and other State and Federal law enforcement agencies. MSN, VIDS, and LEIS II will be connected with each other and use common data.

MISLE will provide management information systems to support marine safety and law enforcement programs by providing cross - functional information system standardization through a competitive system development contract. Better designed and integrated software applications will improve mission effectiveness and efficiency by increasing reliability, significantly reducing system response time and eliminating redundant data entry. Compliance with standard Coast Guard information systems architecture will decrease costs of long term operation and maintenance. The systems will support more than 5,000 USCG users at over 550 sites, state vessel registration offices, law enforcement agencies, commercial banks and the public (those people that have a bona fide need for the data). The tightly integrated operational information systems will improve marine safety and law enforcement missions and enhance civil penalty processing.

MISLE's outcomes support the Coast Guard's strategic goals of Maritime Safety, Protection of Natural Resources, Mobility, Maritime Security, and National Defense, and are closely aligned with several of the internal efficiency and continual improvement management goals found in the Commandant's Direction.

### B. Program management

1. Is there a project manager and contracting officer devoted to the project? Yes.
2. Will an Integrated Product Team be established to assist with the management of the project? The Coast Guard employs Integrated Product Team concepts to develop the systems.

**C. Acquisition strategy:** MISLE is using the Mission Oriented Information System Engineering (MOISE) contract to develop software and integrate three systems: Marine Safety Network (MSN), Vessel Identification and Documentation System (VIDS, which is comprised of two subsystems, the Vessel Identification System (VIS) and the Vessel Documentation System (VDS)), and Law Enforcement Information System II (LEIS II). The MOISE contract is Cost-Plus-Award-Fee. Appropriate performance measurements necessary to provide incentives for the contractor are identified in the Award Fee Plan. The MISLE project will use a number of existing contracts to acquire hardware, software, telecommunications, independent validation and verification, and operations and maintenance:

- Hardware for MISLE will be purchased using the Navy's Super Mini Contract.
- Telecommunications for the MISLE project is handled through the Coast Guard Data Network.
- Operations and Maintenance will be contracted through the Coast Guard's Operations and Maintenance Contract at Operations System Center in Martinsburg, WV
- Independent Verification and Validation has been conducted through SETA Corporation, a GSA FEDSIM independent 8A contractor.

The project is using “modular contracting”. The MISLE Project uses task orders to acquire the applications within each of five Releases. Each task order is managed individually to produce a software application. Each application is taken through unit and integration testing before system testing is done at the release level. This minimizes the impact of problems found at the application level and allows individual applications to be individually fielded should an entire release experience inordinate delays.

**D. Financial basis for selecting the project:**

1. (Summarize the analysis of full life-cycle costs/total costs of ownership; results of cost/benefit analyses, including return on investment; and any tangible returns that benefit the agency but are difficult to quantify. For information technology, address replaced system savings and savings recovery.)

As previously noted, some parts of the MISLE project are mandated by public law. Additionally, MISLE provides replacement systems for the Marine Safety Information System (MSIS). Current MSIS hardware and software are technologically obsolete, difficult and costly to maintain, and increasingly unable to support Coast Guard missions; MSIS will be replaced by MSN. MSN will be integrated with LEIS II and VIDS to provide cross - functional support to the Coast Guard and other State and Federal law enforcement agencies, thus greatly increasing operational effectiveness.

2. (Describe analysis of alternative options and identify any underlying assumptions. Provide the estimate of risks, such as Y2K.) Y2K compliance is confirmed prior to system deployment.

**E. Adherence to architecture and infrastructure standards:**

1. (Describe how the project is compliant with the agency's IT architecture and technical infrastructure). The MISLE technical architecture has been approved by the Coast Guard's CIO. All updates or product evaluations are closely coordinated with the CIO's staff to ensure compatibility with the Coast Guard's architecture.

2. (Identify standards for info exchange and resource sharing.) MISLE complies with the Coast Guard Data Element Naming Standards.

3. (Demonstrate adherence to government-wide standards, where applicable (such as Y2K). The MISLE Systems will be tested for Y2K compliance prior to deployment.

4. (Identify use of commercial-off-the-shelf software (COTS) versus custom; justify custom components. COTS and GOTS (Government-off-the-Shelf) software solutions are evaluated during the preliminary design of each application. These potential solutions are submitted to the Coast Guard's CIO to ensure they are compliant with the Coast Guard's technical architecture.)

**COST, SCHEDULE AND PERFORMANCE GOALS**

**A. Description of performance based system:**

The MISLE Project is a major acquisition in the Coast Guard and as such has an Acquisition Project Baseline (APB). Approval of the APB established “top level” objectives and thresholds on cost, schedule, and performance which the Project Manager (PM) must meet or exceed. The purpose of the APB is to provide control to prevent unit cost growth and “requirements creep” due to unnecessary system configuration changes or the imposition of new, unapproved operational requirements. Changes to the APB will only be made under extreme circumstances. Any actual or anticipated changes or “breaches” to a Project's APB are reported via a Project Deviation Report (PDR) prepared by the PM to the Administration Acquisition Executive (AAE) for the Coast Guard.

The contractor provides Cost and Schedule Status Reports based on an Earned Value System. These reports allow the Coast Guard to examine the contractor's cost and schedule estimates, variances, and projections for completion.

**B. Original baseline:**

1. Cost and schedule goals: The APB provides a total project cost range of \$55M to \$61M. Cost and Schedule sections of the APB are reproduced below:

**Cost:**

<u>Critical Parameter</u>	<u>Range</u>
MSN	\$46M to \$50M
VIDS	\$08M to \$09M
LEIS II	\$01M to \$02M
TOTAL COST	\$55M to \$61M

**Schedule:**

<u>Critical Events</u>	<u>Range</u>
* Initial System/Module Development Complete and begin OT&E	3 <sup>rd</sup> Qtr FY97 to 2 <sup>nd</sup> Qtr FY98
* KDP 4 Decision	1 <sup>st</sup> Qtr FY98 to 2 <sup>nd</sup> Qtr FY99
* Last System/Module Development and OT&E Complete	2 <sup>nd</sup> Qtr FY02 to 4 <sup>th</sup> Qtr FY02
* Last System Migrated to OSC	3 <sup>rd</sup> Qtr FY02 to 1 <sup>st</sup> Qtr FY03

2. Performance goals: The Performance section of the APB is reproduced below:

**Performance:**

<u>Critical Parameter</u>	<u>Threshold</u>	<u>Objective</u>
* On-line System Response Time, MSN and VIDS	90% within 15 seconds	90% within 05 seconds
	99% within 90 seconds	99% within 30 seconds
	100% within 05 Minutes	100% within 02 Minutes

2. Performance goals: The Performance section of the APB is reproduced below: (cont'd)

* On-line System Response Time, (LEIS II)	Level 1* = 05 minutes	Level 1 < 05 minutes
	Level 2 = 15 minutes	Level 2 < 15 minutes
	Level 3 = 1 hour	Level 3 < 1 hour
	Level 4 = 1 day	Level 4 < 1 day

\* Operational state response time levels 1-4 are defined in the LEIS II System Specification.

<u>Critical Parameter</u>	<u>Threshold</u>	<u>Objective</u>
<b>Reliability</b>	User inter- ruptions due to system	User Inter- ruptions due to system

	fault < 2 per week per week	fault < 1 per week per week
<b>Security</b>	Required security controls - Management - Development - Acquisition - Operational - Training - Technical are in place prior to full deployment	Required security controls: - Management - Development - Acquisition - Operational - Training - Technical are in place prior to initial operational capability (IOC)
<b>Supportability</b>	Required support elements - Maintenance - Training - Equipment - Facilities are in place prior to full deployment	Required support elements - Maintenance - Training - Equipment - Facilities are in place prior to IOC
<b>Survivability</b>	> 50% of users are able to continue operations with single component failure	> 90% of users are able to continue operations with single component failure

<b><u>Critical Parameter</u></b>	<b><u>Threshold</u></b>	<b><u>Objective</u></b>
<b>System Availability - MSN &amp; VIDS</b>	98% of scheduled availability per month	> 99.5% of scheduled availability per month
<b>System Availability - LEIS II</b>	99.5% of scheduled availability per month	> 99.5% of scheduled availability per month

**C. Current baseline:**

1. Cost: Current estimate is within the range of the original baseline.
2. Schedule: The Original Schedule for the deployment of the initial system/module was third quarter of FY 1998, and has been updated to first quarter FY 1999.
3. Performance: Performance goals remain the same as the original baseline.

**D. Variance from current baseline:**

1. Variance in cost: None
2. Variance in schedule: None
3. Variance in performance: None

**E. Latest revised estimates:** Project meeting all baseline goals.

**F. Corrective actions:** No corrective action required.

Agency: U. S. Coast Guard
Bureau: Acquisition Directorate
Name of project: <b>SURFACE SEARCH RADAR REPLACEMENT PROJECT</b>
New Project _____ Ongoing Project <u> X </u>
Is this project information technology? Yes _____ No <u> X </u>

**JUSTIFICATION AND OTHER INFORMATION**

**A. Justification:**

The Surface Search Radar (SSR) acquisition project will provide for replacement of the aging AN/SPS-64 radar system. These radars are increasingly difficult and expensive to support. The replacement radar will significantly increase performance reliability while minimizing maintenance and training requirements. The project has been designated by the Department of Transportation as a major system acquisition under the general oversight of the Coast Guard Administration Acquisition Executive, and is managed under the general guidance provided in the Office of Management and Budget Circular A-11, and the Coast Guard Systems Acquisition Manual, COMDTINST M4150.2 (series).

The U.S. Navy has joined the Coast Guard's SSR acquisition effort to replace their navigation radars. The Navy participated in development of the SSR specification and Statement of Work. They provided the government Cost Estimate and had active participation on the Technical Evaluation Board, Cost Evaluation Board and Source Evaluation Board. Joint Coast Guard/Navy adaptation of the SSR will reduce life cycle costs.

**B. Program management:**

1. Is there a project manager and contracting officer devoted to the project? Yes.
2. Will an Integrated Product Team be established to assist with the management of the project? Yes, the Coast Guard employs a matrix team approach. The personnel assigned to the matrix are from the contracting, logistics, technical, operational and project management disciplines.

**C. Acquisition strategy:**

On January 26, 1996 a Firm Fixed Price contract was awarded to Hughes Aircraft Company, Fullerton, California, for procurement of the Surface Search Radar. Raytheon Systems Company has since acquired Hughes. The acquisition was negotiated under Full and Open Competition.

Open Competition. The SSR system, which has been officially designated the AN/SPS-73, is currently planned for installation on 9 types of Coast Guard vessels and at existing Vessel Traffic Services (VTS) sites. The AN/SPS-73 SSR system will serve as the Coast Guard standard for currently existing cutters. The Surface Search Radar is a fixed price supply contract with minimum order quantity requirements. A total of 106 vessels will be retrofitted with radar systems under this project.

The following Coast Guard Cutters, by type and quantity, are projected to be retrofitted with the AN/SPS-73 SSR:

<u>TYPE</u>	<u>QTY</u>
WPB-110 Patrol Boat	49
WTGB-140 Ice Breaker Tug	9
WLIC-160 Inland Construction Tender	4
WMEC-210 Medium Endurance Cutter	16
WMEC-270 Medium Endurance Cutter	13
WIX-295 "Eagle" Training Cutter	1
WHEC-378 High Endurance Cutter	12
WAGB-400 Polar Ice Breaker	2

**COST, SCHEDULE AND PERFORMANCE GOALS**

**A. Description of performance based system:**

The SSR contract (Firm Fixed Price) employs a derivative of an earned value system by utilizing the data generated from the contractor's accounting system. The contractor furnishes financial information with all requests for progress payments. The information is then compiled by the contracting officer and compared with actual progress. The ultimate objective of this method is to ensure that physical completion is commensurate with the amount of project funds expended. Next, the project staff provides the contracting officer with an assessment of physical percent completion on a monthly basis to compare with the contractor's values. After installation, each Coast Guard vessel with the AN/SPS-73 SSR system installed is required to submit a monthly report identifying the systems operational availability which is compared against the availability requirements contained in the Surface Search Radar Operational Requirements Document.

**B. Original baseline:**

		(millions)										
		Prior to									04and	Total
		FY97	97	98	99	00	01	02	03	beyond		
1.	Cost:	8.6	4.0	15.4	12.9	4.0						44.9
2.	Schedule:											
	Test Plan Approved		FY96	Q1								
	First Article Testing Completed		FY96	Q4								
	Initial Operating Capability		FY96	Q4								
	CGARC (KDP4) Installations Complete		FY96	Q4								
			FY01									
3.	Performance:											
	Range		On a WMEC-210: detect a 65' vessel in calm seas, at 10.5NM									
	Size/Weight/Moment		= to or < AN/SPS-64									
	Open Architecture and Modular Design		MIL-STD-2036									
	Minimum Detection Range		25 Meters									
	Availability		>99.9%									
	System Life		>10 Years									
	Power		= to or <AN/SPS-64									
	Frequency Bands		X and S bands on WMEC-270 and WHEC-378. X band on all others									

**C. Current Baseline:**

		(millions)										
		Prior to									05 and	Total
		FY98	98	99	00	01	02	03	04	beyond		
1.	Cost:	12.5	15.4	11.8	4	1.2						44.9
2.	Schedule:											
	Test Plan Approved		FY97	Q3								
	First Article Testing Completed		FY98	Q1								
	Initial Operating Capability		FY97	Q3								
	CGARC (KDP4) Installations		FY98	Q2								
			FY01	Q4								

**D. Variance from baseline goals:**

1. Cost: Current estimate is within baseline goals.
2. Schedule: Meeting baseline goals.

3. Performance: Meeting baseline goals.

**E. Latest revised estimate:**

1. Cost: No change
2. Schedule: No change.
3. Performance: No change

**F. Corrective actions:** No change.

Agency: U. S. Coast Guard Bureau: Acquisition Directorate Name of project: <b>SEAGOING BUOY TENDER REPLACEMENT PROJECT</b> New Project _____ Ongoing Project <u> X </u> Was the project approved by an Executive Review committee? Yes <u> X </u> NO ____ Is this project information technology ? Yes _____ No <u> X </u>
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### **JUSTIFICATION AND OTHER INFORMATION**

#### **A. Justification:**

Under 14 USC 81, the Coast Guard operates and maintains a nationwide system of fixed and floating short range aids to navigation (SRA) using a variety of cutters and boats. This system, designed to facilitate safe and expeditious marine traffic, is essential to the national economy, security, and interest, and will remain so beyond the year. No substantial technological advances are forecast that will substantially change the nature of the SRA system. The system's servicing requirements are expected to remain essentially unchanged for the next thirty years. To maintain such a system the CG employs a wide variety of vehicles ranging from seagoing buoy tenders (WLB) to trailerable aids to navigation boats.

The current fleet of 180 ft WLBs is at the end of its service life. Seagoing buoy tenders are multi-mission resources and are an important part of the CG fleet. The various functions performed by WLBs are consistent with DOT and CG goals and objectives. While the relative proportion of SRA activity to that supporting other programs may vary, replacements for the WLBs will retain the multimission character that is common to most CG platforms. Thus, meeting the need for replacement of the WLB's capabilities will significantly contribute to the CG's ability to effectively carry out several of its missions. Furthermore, loss of the capabilities without acquisition of offsetting resources would adversely affect the CG's ability to carry out SRA and other multimission responsibilities.

In 1992, the Volpe National Transportation Systems Center conducted a fleet mix study to determine what combination of new aids to navigation resources would meet the needs of the SRA system. The results of the Service Force Mix 2000 (SFM 2000) study recommended a fleet size of 16 WLBs combined with 14 Coastal Buoy Tenders (WLM) replacements in an integrated system. The fleet size of 16 was formalized at Key Decision Point 4 (full production decision) in August 1997

The WLB replacements use proven technology to improve efficiency, reduce fleet size, and reduce crewing requirements. They also incorporate advanced navigational systems and dynamic positioning to improve buoy handling operations and increase operational availability.

Project technical risk is low; five replacement WLBs (A Class) are in service and conducting operations. The follow-on production contract for eleven (B Class) cutters has been awarded and four cutters are under contract. Project schedule risk is medium pending delivery of lead hull. Project cost risks is low provided sufficient funds are available to complete the procurement. Sufficient funds were not available in FY99 to fund a third hull as specified in project plans. If a third hull cannot be funded in FY00 or FY01, the project will not be able to procure the eleven "B" Class WLB's required to meet operational needs.

#### **B. Program management**

1. Is there a project manager and contracting officer devoted to the project? Yes.
2. Will an Integrated Product Team be established to assist with the management of the project? Yes. The Coast Guard employs a matrix team approach, which includes representatives from Coast Guard Acquisition, Naval Engineering, Operations, and other offices and field organizations. In addition, a Project Resident Office has been established at the contractor's facility, which oversees day to day engineering, logistics, and contracting details.

#### **C. Acquisition strategy:**

The WLB acquisition includes two contracts; lead ship detail design and construction to provide five ships (A Class) and, the follow-on production (B Class) to provide eleven cutters to complete the sixteen ship fleet. The A Class contract was based on a Coast Guard Circular of Requirements and an industry proposed design. The B Class contract was based on the A Class design package. Both contracts are fixed price with economic price adjustment and were awarded with full and open competition.



**E. Latest Revised estimate\*\*\*:**

		(millions)								
		Prior to FY98	98	99	00	01	02	03-04	05	Total
1.	Cost:	242	41	73	77	124	80- 84	10-18	0	647-661

Latest revised cost estimate is below current baseline.

2. Schedule: (Based on the budget authority as indicated in Part I and within current baseline.)

3. Performance: None. Performance goals remain the same as the current baseline.

\*\*\*Latest Revised Estimate data from DOT Semiannual brief March 1999.

**F. Corrective Actions:** None required

Agency: U. S. Coast Guard Bureau: Acquisition Directorate Name of project: <b>POLAR ICEBREAKER REPLACEMENT</b> New Project _____ Ongoing Project <input checked="" type="checkbox"/> Is this project information technology? Yes _____ No <input checked="" type="checkbox"/>
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**JUSTIFICATION AND OTHER INFORMATION**

**A. Justification:**

The Coast Guard is the sole United States Government agency which provides icebreaking capabilities in the high latitude areas. The mission of the USCGC Healy is to provide polar icebreaking capabilities, including logistics, ice escort, and scientific strategic and inspection missions in the Arctic and Antarctic regions.

The preliminary design for this new polar icebreaker, designated WAGB 20, was developed as a result of several studies conducted by the Coast Guard in conjunction with the Department of Defense, the Department of Transportation, the Office of Management and Budget, Maritime Administration, the National Science Foundation and the National Oceanic and Atmospheric Administration.

Technical risk for the design and construction work for the USCGC Healy is low. Current technology is being used to design and build the ship. Construction was started in March 1996, Keel Laying completed in September 1996, launching completed in November 1997, Builder's sea trials completed in August 1999.

Schedule risk is low. New delivery is 29 October.

Cost risk is low as long as FY2000 AC&I budget is passed and delivery is on schedule.

**B. Program management**

1. Is there a project manager and contracting officer devoted to the project? Yes.
2. Will (has) an Integrated Product Team be established to assist with the management of the project? Yes. (Details next page)

A Memorandum of Agreement defining the cooperative relationship between the Department of the Navy and the Coast Guard for the acquisition of the Polar Icebreaker was signed in April 1990. A joint Coast Guard/Navy Ship Acquisition Program Management Office was established the same year. In addition, a Program Management Representative Office (PMRO) was established in 1993 and is located at the contractor site, Avondale Industries Inc., New Orleans. The PMRO, in conjunction with the Supervisor of Shipbuilding, New Orleans, provides technical, quality assurance, logistics and administrative support.

**C. Acquisition strategy:**

In March 1992 the U.S. Navy, as contracting agent, canceled the icebreaker solicitation because the bids received exceeded the total funds appropriated. To rectify the situation, the Navy, in November 1992, awarded a contract for the icebreaker to two shipbuilders for an Engineering Design Baseline (EDB). Each yard was to independently develop the EDB based on a revised performance-based specification, Specification of Requirements (SOR), and price for detailed design and construction. The contract award for the detailed design and construction of the vessel was to be made on the basis of "best value" to the customer and the bid was not to exceed \$245M. On 15 July 1993, Avondale Industries was awarded the contract for the detailed design and construction of the WAGB 20. Contract type was a Fixed Price Incentive Firm contract with a 70/30 shareline. The shareline has since been reduced to 50/50 in consideration to the government for changing the delivery date to the current date of 29 October 1999.

**COST, SCHEDULE AND PERFORMANCE GOALS**

**A. Description of performance based system:**

The contractor provides a monthly Cost Performance Report. The report allows the Navy to examine the contractor's cost and schedule variances, variances at completion and latest revised estimates. The program also utilizes the Performance Analyzer system to independently generate Estimates at Completion to compare with the contractor's projections. Finally, the PMRO tracks daily production progress against the shipbuilder's production schedules.

**B. Original baseline:**

Not technically required because the DOD contract was awarded prior to the date DOD required a Cost, Schedule, and Performance Baseline. In this contract they were targets. The project is within Cost and Performance targets. Delivery date is the only contractual date and is currently 29 October 1999 with consideration already agreed to for a delivery in November 1999.

**C. Current Baseline (Targets):** Developed internal to the Coast Guard.

		(millions)									
		Prior to							05 and		
		FY98	98	99	00	01	02	03	04	beyond	Total
1.	Cost:	29.0	3.5	2.1	1.9	1.0					37.5

\*Procurement costs funded in Department of Defense's Shipbuilding and Conversion, Navy (SCN) appropriation. Coast Guard annually funds requirements in the Acquisition, Construction & Improvement account for items for which the SCN appropriation may not fund.

2. Schedule:

Builder's Sea Trials: Conducted Aug 99  
 Preliminary Acceptance and Delivery: FY00 Q1  
 Final Acceptance: FY01 Q2

2. Performance: SOW is performance based. Key characteristics are as follows:

Draft (full load) 29 feet (maximum)  
 Displacement (full load) 16,400 tons  
 Length (overall) 420 feet  
 Shaft Horse Power 30,000 SHP  
 Icebreaking 4.5 ft at 3 kts  
 Crew Size 75 Military  
 Scientists 50

**C. Variance from current baseline**

1. Cost: Current estimate is within baseline goals.
2. Schedule: Current delivery date meets current operational goals.
3. Performance. Current estimate is within baseline goals.

**D. Latest revised estimate:**

Delivery in FY00 Q1 vice FY97 Q4.

**E. Corrective action:**

DOD has received increased performance and decreased cost from the contractor to offset the changes in delivery. Current delivery date meets Coast Guard and National Science Foundation operational needs.

Agency: U. S. Coast Guard Bureau: Acquisition Directorate Name of project: <b>DEEPWATER CAPABILITY REPLACEMENT ANALYSIS</b> New Project _____ Ongoing Project <u>X</u> Is this project information technology? Yes _____ No <u>X</u>
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**JUSTIFICATION AND OTHER INFORMATION**

**A. Justification:**

1. Deepwater Surface, Air, and C4ISR assets are approaching the end of their useful service lives. Deepwater Mission Analysis Report dated 06 Nov 95 identified a capabilities gap and a Mission Need Statement was approved by DOT on 29 AUG 96 allowing analysis to start.

**B. Program management:**

1. Is there a project manager and contracting officer devoted to the project? Yes.
2. Will an Integrated Product Team be established to assist with the management of the project? Yes. The Coast Guard employs a matrix team approach, which includes representatives from Coast Guard Acquisitions, Operations, Logistics, and other offices and field organizations.

**C. Acquisition strategy:**

1. Awarded contracts to three industry teams to define and provide trade-off, life cycle analysis, and conceptual design for an Integrated Deepwater System (IDS). An Independent Government analysis contract was awarded for baseline analysis. The government will have the option to either: (1) downselect a single team design for an integrated system; or (2) choose portions of proposed systems from two or three teams for integration into a single system. The IDS will be based on the functional design of the selected Industry Team in FY02.

**COST, SCHEDULE AND PERFORMANCE GOALS**

**A. Description of performance based system:**

Integrated system of surface, air, C4ISR assets to be developed to meet mission requirements in the Deepwater environment.

**B. Original baseline:**

1. Cost: To be developed
2. Schedule: To be developed
3. Performance: To be developed

**C. Current Baseline:**

1. Cost: N/A
2. Schedule: N/A
3. Performance: N/A

**D. Variance from current baseline:**

1. Cost: N/A
2. Schedule: N/A
3. Performance: N/A

**E. Latest revised estimate:**

1. Cost: N/A

2. Schedule: N/A
3. Performance: N/A

**F. Corrective Actions**  
N/A

Agency: U. S. Coast Guard

Bureau: Acquisition

Name of project: **GREAT LAKES ICEBREAKING REPLACEMENT PROJECT**

New Project  Ongoing Project

Was the project approved by an Executive Review Committee? Yes  No

Is this project information technology? Yes  No

**JUSTIFICATION AND OTHER INFORMATION**

**A. Justification:** The Great Lakes Icebreaking Capability Replacement (GLIB) Project is a program to ensure continuity to meet the heavy icebreaking requirements on the Great Lakes. The Coast Guard will not be able to carry out the heavy icebreaking mission on the Great Lakes unless appropriate capabilities currently provided by USCGC MACKINAW are preserved or replaced. USCGC MACKINAW is scheduled to operate until 2006. The Mission Need Statement was approved by the Transportation System Acquisition Review Council (TSARC) on 02DEC97. The preferred acquisition alternative was determined by COMDT (G-CV) decision memo dated 21JUL99. Approval to proceed to full scale development, production and deployment was granted by the Administration Acquisition Authority (AAE) on 26AUG99.

**B. Program management:**

1. Is there a project manager and contracting officer devoted to the project? Yes.
2. Will an Integrated Product Team be established to assist with the management of the project? Yes. During the detail design and construction phase the Coast Guard will form an integrated product team with the design/build contractor. In addition, the Coast Guard employs a matrix team approach providing representation from Coast Guard Acquisitions, Operations, Logistics and other offices and field organizations.

**Contract strategy:**

1. The project seeks state-of-the-market, non-developmental, proven technology, however innovative approaches to logistic support and life cycle cost (LCC) applications are desired. The key element of the GLIB Acquisition Plan is the development of a two-phased acquisition strategy. The two-phase acquisition strategy was selected based upon several factors:
  - a. To ensuring adequate competition
  - b. To increase understanding of CG requirements sufficiently to competitively price a one-of-one acquisition with a firm fixed price contract.
  - c. To develop innovative logistics support systems and life cycle cost management.
  - d. To improved producability of the final design.
2. PHASE ONE: Phase I will result in a contract design based upon the Coast Guard's requirements as stated in a performance-based specification. The hull form will be provided as guidance for technical data purposes. Computer analysis of icebreaking and open water seakeeping performance will be required and additional testing may be required as necessary. Offerors will submit proposals and up to three teams capable of full performance (i.e. design and construction) will be awarded fixed price contracts to develop their contract design.
3. PHASE TWO: The Coast Guard will then down select to a single contractor to complete the detail design and construct the ship.

**C. Financial Basis for Selecting the Project:**

1. All potential material and non-material solutions were thoroughly studied. 10 discrete alternatives were identified. Five were determined to be not technically viable: Ice Strengthening JUNIPER Class, Icebreaking Bow Appendage, Multi-mission Service Contract, Charter or Purchase Existing Vessel and Increased Canadian Icebreaking. Two alternatives were economically non-competitive with other viable options: Modernize/SLEP MACKINAW and Single Purpose Vessel Construction. The remaining top three alternatives were: Time Charter Icebreaking Services, New Construction of a Multi-Purpose Vessel and Lease-Purchase of a New Construction Multi-Purpose Vessel.
2. Life Cycle Costs and icebreaking benefits were developed for all technically viable alternatives. Industry benefits were quantified at the fleet level utilizing an icebreaking performance model recognizing the interdependencies caused by the seasonal overlap of ice and AtoN operations and their effect on operational fleet icebreaking as well as AtoN performance. Final selection of the preferred alternative was based on the combination of life cycle costs, acquisition costs, fleet icebreaking performance and program risks.

***COST, SCHEDULE AND PERFORMANCE GOALS***

- A. **Description of Performance Based System:** The Great Lakes Icebreaking Capabilities Replacement Project is a Department of Transportation (DOT) Major Acquisition and as such has an Acquisition Project Baseline (APB) which was approved by the Administration Acquisition Executive (AAE). Approval of the APB established "top level" objectives and thresholds on cost, schedule and performance which the Program Manager (PM) must meet or exceed. The purpose of the APB is to provide control to prevent cost growth and requirements creep due to unnecessary system configuration changes or imposition of new or unapproved operational requirements.

**B. Original Baseline:**

1. Cost:

Critical Parameter	Range
Then Year \$	\$131M-\$159M
Total RTD&E	0
Total AC&I	\$131M-\$159M
Total Quantity	1

All costs are in then year dollars. Cost basis for LCCE is most probable (mid-point) acquisition cost estimate of \$138.3M. Range of vessel construction uncertainty is -5% to +15% (ELC Report 023-98-002). Total acquisition cost consists of all costs to acquire the system ready to operate. The mid-point estimate of \$138.3M includes \$14M for the planned Acquisition Program, PRO and ACI funded matrix support personnel.

2. Schedule:

Critical Parameter	Range
<b>KDP 2/3</b>	4 <sup>th</sup> Qtr FY99
Contract Design Award	3 <sup>rd</sup> -4 <sup>th</sup> Qtr FY00
Detailed Design & Construction Award	3 <sup>rd</sup> -4 <sup>th</sup> Qtr FY01
Information CGARC Brief	1 <sup>st</sup> Qtr FY02
Vessel Delivery	FY05
Initial Operating Capability	FY05
Coast Guard Support Date	FY06

3. Performance:

Critical Parameter	Threshold	Objective
Icebreaking Ahead: Level Ice	30 in. @ 3 kts	32 in. @ 3 kts
Icebreaking Ahead: Brash Ice	8 ft. @ 3 kts	12 ft. @ 3 kts
Icebreaking Astern: Level Ice (minimum)	30 in. @ 2 kts	30 in. @ 2 kts
Icebreaking Astern: Brash Ice	8 ft. @ 2 kts	12 ft. @ 2 kts
Cast (Star maneuver within 300 ft channel width): Level Ice Thickness	30 in.	30 in.
Cast (Star maneuver within 300 ft channel width): Brash Ice Depth	8 ft.	12 ft.
Track Width in 30-inch Level Ice	60 ft.	75 ft.
Length, Overall (maximum)	240 ft.	240 ft.
Beam, (maximum)	60 ft.	60 ft.
Extreme Draft @ Delivery (maximum for AtoN)	15.5 ft.	15.0 ft.
Speed, Sustained in Open Water (minimum)	15 kts	15 kts
Speed, Economical	10 kts	12 kts
Range @ 12 kts in Open Water	4000 nm	6000 nm
Fuel Endurance @ 50% full power in Ice	15 days	21 days
Buoy Deck Area	3000 sf	3500 sf
Freeboard @ Buoy Port for AtoN (maximum)	8 ft.	8 ft.
Station Keeping in 30 kts wind & 8 ft seas (max)	35 ft radius	35 ft radius

- B. **Current Baseline:** Same as Original.
- C. **Variance from Baseline Goals:** None.
- D. **Latest Revised Estimate:** N/A
- E. **Corrective Actions:** N/A

Agency: U. S. Coast Guard Bureau: Acquisition Directorate Name of project: <b>PORTS AND WATERWAYS SAFETY SYSTEM (PAWSS)</b> New Project _____ Ongoing Project <input checked="" type="checkbox"/> X Is this project information technology? Yes <input checked="" type="checkbox"/> X _____ No _____
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### **JUSTIFICATION AND OTHER INFORMATION**

#### **A. Justification:**

The United States Maritime transportation system is an integral part of the nation's intermodal transportation network. Environmental protection, safety and the efficiency of ports and waterways depend on effective waterways management, adequate electronic communications, navigational aids, hydrographic and meteorological data, etc.

Vessel Traffic Services (VTS) can contribute significantly to enhancing the safety and efficiency of ports and waterways. The Coast Guard intends to develop basic elements of a VTS system based on Coast Guard mission requirements and discussions with local officials, waterway users, and port authorities. State-of-the-market, off-the-shelf, vessel traffic services designed to provide safe passage in high-risk ports and waterways, will be implemented in critical ports.

VTS is internationally accepted by maritime nations as a cost effective and efficient means to enhance the safety and protect the environment of ports and waterways. Vessel Traffic Services facilitate timely, safe transportation of waterborne commerce which has a direct impact on the social and economic viability of the nation. A high percentage of all collisions, ramblings and groundings, along with the associated loss of life and damage to the environment, could be prevented with VTS systems.

#### **B. Program management**

1. Is there a project manager and contracting officer devoted to the project? Yes
2. Will an Integrated Product Team be established to assist with the management of the project? Yes. The Coast Guard employs a matrix team approach, which includes representatives from Coast Guard Acquisitions, Logistics, Marine Safety, and other offices and field organizations.

#### **C. Acquisition strategy:**

Awarded a multi-year contract in April 1998 to a single System Integration Contractor with individual task orders to be issued for each port as well as incremental development to meet requirements.

#### **D. Financial basis for selecting the project:**

1. (Summarize the analysis of full life-cycle costs/total costs of ownership; results of cost/benefit analyses, including return on investment; and any tangible returns that benefit the agency but are difficult to quantify. For information technology, address replaced system savings and savings recovery.)

At least one port involved with the PAWSS project is mandated by public law. Current VTS systems in use are quickly becoming obsolete and costly to maintain. PAWSS will provide a means to update or replace these existing systems with state-of-the-market, off-the-shelf products. The integrated product approach of the new systems will greatly increase waterborne traffic safety, not only for commercial traffic, but for private pleasure crafts. PAWSS will provide the Coast Guard, other federal agencies, State and local governments, as well as the maritime industry, with a means to facilitate safe transportation of waterborne commerce and enhance the safety and protect the environment of ports and waterways.

2. (Describe analysis of alternative options and identify any underlying assumptions. Provide the estimate of risks, such as Y2K.) Development of port and waterways VTS systems will be achieved through open communication among users, stakeholders and industry. VTS systems will only be implemented where other waterway management tools are not appropriate. Project schedule and technical risks are considered medium. Y2K compliance will be certified and confirmed prior to full systems acceptance.

#### **E. Adherence to architecture and infrastructure standards:**

1. (Describe how the project is compliant with the agency's IT architecture and technical infrastructure). The VTS system architecture follows open systems standards and uses modular design adopted by the U.S. Coast Guard. Scalability and flexibility are system characteristics that provide for incremental deployment, enhancements, changes, and technology insertion over the life of the system.
2. (Identify standards for info exchange and resource sharing.) Communication capabilities are achieved through Government-provided or vendor-provided communications in accordance with applicable Telecommunications Service Requests. Database data exchange may be provided by external Database System Interfaces.
3. (Demonstrate adherence to government-wide standards, where applicable (such as Y2K). The VTS system must perform fault-free prior to, through, and beyond January 1, 2000 without direct intervention. The system will be Y2K compliant before acceptance.
4. (Identify use of commercial-off-the-shelf software (COTS) versus custom; justify custom components. The VTS system requires the use of Commercial Off-the-Shelf (COTS) and/or Government Off-the-Shelf (GOTS) equipment and software.

***COST, SCHEDULE AND PERFORMANCE GOALS***

**A. Description of performance based system:**

VTS systems will be installed using an incremental development strategy in accordance with discussions with local stakeholders. New ports will not be added until completion of discussions.

**B. Original baseline:**

		(millions)									
		Prior to							04and		
		FY97	97	98	99	00	01	02	03	beyond	Total
1.	Cost:	N/A									
2.	Schedule:	N/A									
3.	Performance:	N/A									

**C. Current Baseline:**

1. Cost: To Be Developed
2. Schedule: To Be Developed
3. Performance: To Be Developed

**D. Variance from current baseline**

1. Cost: N/A
2. Schedule: N/A
3. Performance: N/A

**E. Latest revised estimate**

1. Cost: To Be Developed
2. Schedule: To Be Developed
3. Performance: To Be Developed

**F. Corrective actions:**

N/A

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**Appendix C (and Appendix D) contains pre-decisional, budgetary information whose release may harm the budget planning process. Please contact Commandant (G-CPP) if you have a need for this information."**