

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

FISCAL YEAR 2002 BUDGET ESTIMATES

FULL-COST MANAGEMENT

During 1995, the National Aeronautics and Space Administration (NASA) began a multi-year initiative to introduce full-cost practices into NASA. Full-cost practices involve new management, budgeting, and accounting changes. The changes are designed to provide new, detailed, complete cost information and thereby support improved and more cost effective mission performance and related administrative improvements. Full-cost practices, also referred to as full-cost management, integrate new cost accounting information on all aspects of NASA's activities. This information will help managers ensure that all activities cost-effectively support NASA missions. Full-cost budget information will highlight the full cost, including support costs, of each NASA project and thereby support more complete, "full" disclosure of NASA's activities, clearer linkage between resource inputs and outputs/outcomes, and greater accountability regarding NASA's use of taxpayer resources.

NASA's full cost practices are designed to provide useful, detailed cost information for internal management and appropriate cost information for external oversight. Such information is expected to result in improved decisions and more cost effective mission performance. NASA's practices also comply with related Federal legislation, such as the 1990 Chief Financial Officers (CFO) Act, the 1993 Government Performance and Results Act (GPRA) and the 1996 Federal Financial Management Improvement Act.

The two-appropriation budget merges the previous Mission Support appropriation budget items with the traditional R&D funds on an Enterprise-by-Enterprise basis into individual Mission Support budget lines within each Enterprise. The two appropriation budget in 2002 is the next phase in progressing towards a complete full cost budget. While it does not represent the final goal of a full cost budget at a detailed project/activity level, it does provide significant information to the reader. This FY2002 budget approach continues the progress toward full cost budgeting until the new systems in the Integrated Financial Management Project (IFMP) can be implemented. The "two-appropriation" budget for SAT and HSF also contains a third appropriation for the Inspector General as required by law.

The budgets for each Enterprise have been calculated on the basis of the direct civil service staff required to execute the Enterprise's activities, plus the allocation of the indirect civil service workforce, Research Operations Support (ROS), travel, and non-programmatic CoF based on the relative distribution of direct civil service workforce by Enterprise at each Center. Since the role of Headquarters is considered to be "corporate" in nature supporting the entire Agency, Research and Program Management (R&PM) and Research Operations Support (ROS) funds for Headquarters are allocated based on the relative Enterprise distribution of direct FTE's across the Agency. The final allocation of other-than-direct Mission Support elements is not viable for application back to the program or project level. The Multi-Program Support/Project Management Support that is presently applied against each project in R&D funds will remain in each project's budget, as well as the SOMO mission services that are presently budgeted within each project for this preliminary appropriation structure. The SOMO data services that span across projects and the Safety and Mission Assurance effort will be budgeted within the HSF appropriation.

Implementing the two-appropriation budget involves the distribution of resources to a Center from as many as five Enterprise Mission/Institutional Support budget lines. A formula will be employed to automatically distribute each dollar used by this type of program effort among the five budget lines in the same proportion as originally budgeted among the Enterprises. A basic assumption throughout the use of this two-appropriation process is NASA's ability to exercise transfer authority among the two appropriations within each mission support category of personnel and related costs, travel, ROS, and non-programmatic Coff where the experience of the year will be used to update what was originally planned. While the relative percentage of direct FTE's will be used to allocate the Mission Support funds, there is not a direct one-to-one relationship between the FTE's and the Mission Support allocations, as some of the activities (e.g. IFMP, nonprogram Coff, and Environmental activities such as the Plumbrook decommissioning) are budgeted under Mission Support but not driven significantly by civil service FTE's. The Mission/Institutional Support allocations are also not attributable back to the program or project level once the other-than-direct component of the Research and Program Management (R&PM) and ROS funds are applied.

NASA has tested full-cost concepts across the agency and determined the feasibility of implementation and anticipated benefits, conducting an agency-wide Full Cost Simulation in conjunction with the initial FY 2000 budget request, and conducting full cost data collection in the formulation of the FY 2001 budget. These exercises identified the need for additional process improvements and clarifications in the draft guidance documents. Provided below is a summary of the status, purpose and background of NASA's full-cost initiative. Also highlighted are key legislative authorities that will support the timely, effective implementation of full cost practices in NASA.

Supplemental information is available through the NASA CFO Internet site at <http://ifmp.nasa.gov/codeb/initiatives/standard.htm>

Purpose

The purpose of the full-cost initiative is to develop and implement full-cost accounting, budgeting, and management practices in NASA. The purpose of implementing these practices is to support cost-effective mission performance through timely, reliable financial information and practices.

Simply stated, full-cost management can be expected to help to ensure optimum mission performance with the minimum essential resources. In that regard, full-cost practices are expected to:

- Support more cost effective mission performance
- Motivate managers to operate efficiently
- Support economic decisions for appropriate resource allocations
- Help justify NASA's budget on a program/project basis
- Support analysis and decision-making regarding full project costs
- Support analysis and decision-making regarding NASA services provided to others (reimbursable activities)
- Support bench-marking of NASA service activities with other similar services
- Strengthen accountability regarding NASA's effective and efficient use of tax dollars to achieve NASA missions.

NASA is pursuing full-cost management at this time because NASA requires related cost information to more effectively manage its programs, especially in terms of finding the most cost effective means for obtaining supporting expertise and capabilities that previously were only available within the NASA infrastructure but may now be found in the marketplace. [However, while NASA may get more information through full cost management of other cost effective alternatives for obtaining the technical support it needs, this does not preclude the reality of the timeframe associated with making changes to an institution's infrastructure nor adherence to the government's related rules and regulations (e.g. Civil Service Reform Act).

Background

NASA's full-cost management initiative began in 1995 in response to guidance from several NASA and Federal authorities. While the initiative was undertaken in direct response to a specific management initiative of the NASA Administrator, the initiative also responded to guidance indicated in NASA's 1995 Zero Base Review and mandates in several key Federal financial and performance laws and related standards.

In early 1995, the NASA Administrator requested key cost information for NASA and for each NASA Center. In pursuing the Administrator's request, the NASA Chief Financial Officer confirmed that NASA's nonstandard, decentralized accounting systems did not regularly capture all required cost information in a timely, standard, useful manner. Shortly thereafter, in April 1995, NASA initiated its full-cost effort.

During 1995, NASA also completed a Zero Base Review that involved a comprehensive analysis related to streamlining NASA activities. This review also highlighted several weaknesses involving the inconsistent recognition of the total costs of certain NASA activities and the related analytical complications of inconsistent cost information. The Zero Base Review team indicated that NASA should improve cost information and pursue full-cost management.

During 1995, Federal accounting standards-setting organizations also completed key initiatives related to cost accounting. These organizations approved a new managerial cost accounting standard, including a specific standard on full-cost accounting. This standard (and other Federal accounting standards) evolved from recent Federal financial and performance legislation.

During the past few years, financial and performance legislation highlighted key Federal cost accounting and reporting requirements. This legislation included the CFO Act of 1990 and the Government Performance and Results Act of 1993. In addition, more recently the Federal Financial Management Improvement Act of 1996 highlighted and specified other key full-cost accounting requirements. The 1996 Act stated the following.

"The purposes of this Act are to...require Federal financial systems to support full disclosure of Federal financial data, including the full costs of Federal programs and activities, to the citizens, the Congress, and President, and agency management, so that programs and activities can be considered based on their full costs and merits..."

"Each agency shall implement and maintain management systems that comply substantially with Federal financial management systems requirements, applicable Federal accounting standards, and the United States Government's Standard General Ledger at the transaction level."

NASA's full-cost initiative evolved from these internal NASA initiatives, as well as, several related Government-wide initiatives.

During 1995, NASA developed key full-cost concepts and specified related cost information requirements as part of an ongoing Integrated Financial Management system initiative. NASA's full-cost concepts were approved by NASA management in early 1996.

NASA's full-cost concept integrates several fundamental improvements. The planned improvements include: accounting for all NASA costs as direct costs, service costs, or general and administrative (G&A) costs; budgeting for all appropriate program/project/initiative ("project") costs; and managing such "projects" from a full-cost perspective. Direct costs are costs that can be obviously and/or physically linked to a particular project. Service costs are costs that cannot be initially, readily and/or immediately linked to a cost objective, but subsequently can be traced either to a project or to G&A activities (optimally based on service consumption). G&A costs are support costs that either cannot be to a specific project or where the expense of doing so would be uneconomical. Such costs are typically allocated to cost objectives (or projects) by using allocation methods, which meet the tests of reasonableness and consistency.

During 1996, NASA tested full-cost concepts at four NASA prototype test locations (three Centers and Headquarters). The prototype test indicated that NASA could benefit significantly from the introduction of full-cost practices throughout the agency.

During 1997, NASA completed an agency-wide test of full-cost practices that confirmed its earlier observations that NASA could benefit significantly from the implementation on full-cost practices. The 1997 test also confirmed that NASA needed a new integrated financial system to cost effectively and efficiently support all elements of full cost budgeting and accounting. Cost finding techniques that were used to develop full cost accounting estimates after-the-fact proved to be extremely resource-intensive and could not produce needed data in a timely fashion. Furthermore, the timely, efficient formulation of the budget in a full cost format also proved to be extremely resource-intensive and basically unworkable as an ongoing approach.

Status

During 1998, NASA continued testing and refining full-cost practices. A Full Cost Simulation was conducted across the agency utilizing an early version of the FY 2000 budget proposal. The major focus of this simulation was to determine how best to manage in the full cost environment, particularly in regard to service pools and G&A expense pools. Field Center and Headquarters results and issues were presented to a panel of Deputy Center Directors and Deputy Associate Administrators from throughout the agency, who made management recommendations that were integrated into the agency's Full Cost Implementation Guide.

This 1998 test also served as the first utilization of an early version of a valuable tool in terms of process efficiencies -- the Integrated Financial Management System (IFMS) budget formulation system. NASA used this new budget formulation system to develop and analyze budgetary requirements for the FY 2001 submission.

As an important step in implementing full cost practices, NASA developed the full cost of major programs/projects for FY 1998 and FY 1999, and included this information in its audited financial statements.

In late 1999, NASA reached a consensus that full cost practices should be implemented in an efficient and economical manner, as soon as possible. The basic implementation strategy is to phase key full cost practices into Center and Agency operations over the next few years. Centers were directed to initiate full cost activities with a focus on (1) direct labor cost distribution to projects and (2) G&A and service pool structure standardization in FY 2000 and FY2001. Centers are to capture all direct costs, including labor, by project, and report, on a phased basis, this full cost data to Center project managers.