

December 1994

# DEFENSE BUDGET

## Capital Asset Projects Undergo Significant Change Between Approval and Execution





**National Security and  
International Affairs Division**

B-257625

December 28, 1994

The Honorable Sam Nunn  
Chairman  
The Honorable Strom Thurmond  
Ranking Minority Member  
Committee on Armed Services  
United States Senate

The Honorable Carl Levin  
Chairman, Subcommittee on Oversight of  
Government Management  
Committee on Governmental Affairs  
United States Senate

The Honorable Ronald V. Dellums  
Chairman  
The Honorable Floyd D. Spence  
Ranking Minority Member  
Committee on Armed Services  
House of Representatives

The Department of Defense (DOD) is responsible for informing the Congress about its capital asset needs in an annual Defense Business Operations Fund (DBOF) capital budget.<sup>1</sup> Capital assets include such things as equipment, minor construction, and management information systems. In fiscal year 1994, the DBOF capital budget totaled \$1.8 billion.

Concerned about apparent discrepancies between the DBOF capital budget and actual capital asset spending, the Chairman, Subcommittee on Oversight of Government Management, Senate Committee on Governmental Affairs, asked us to (1) determine if DOD carries out the projects identified in the capital budget and (2) assess the effectiveness of DOD's capital budget preparation and review process. The House and Senate Committees on Armed Services (in the Conference Report on the fiscal year 1994 National Defense Authorization Act) also required us to determine the extent that DOD carries out the DBOF capital budget.

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<sup>1</sup>In fiscal year 1992 DOD consolidated several stock and industrial revolving funds, plus other selected business operations, into a single revolving fund called DBOF.

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## Results in Brief

DOD continues to experience significant problems in managing its capital asset program and carrying out its capital budget. The activities we visited, for example, canceled 86 percent and 65 percent of the projects in their fiscal year 1993 and 1994 capital budgets, respectively. Our analysis of 56 fiscal year 1994 projects at 6 defense activities showed that a large number of cancellations occurred because of weaknesses in the budget justification and preparation process. The uncertain environment caused by base closings and realignments, budget reductions, and other DOD management initiatives also contributed to project cancellations. Because activity managers usually replaced the canceled projects with others, the projects carried out by the six activities bear little resemblance to those in the capital budget submitted to the Congress.

DOD has developed new guidance that, if properly implemented, will strengthen the DBOF capital budgeting process. This guidance is a step in the right direction but can be improved by requiring activities to (1) closely link their capital investment decisions to long-range activity plans and missions and (2) rely on net present value as the primary investment decision criterion for rank ordering competing capital investment projects.

Developing new procedures, however, is only a first step. These are long-standing problems that have been reported many times by us, the Inspectors General, and service audit agencies. High-level management attention, training, and appropriate oversight mechanisms are necessary to ensure that key managers fully understand and implement the new guidance. One such mechanism is to include capital asset program deficiencies in the Federal Managers' Financial Integrity Act report. This elevates the significance of the deficiencies and requires special management oversight and tracking.

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## Background

In fiscal year 1992, DOD consolidated nine industrial and stock funds into a single revolving fund called DBOF.<sup>2</sup> The establishment of DBOF did not change any previous organizational reporting structure or command authority relationship. DOD consolidated cash management activities, which helped reduce the amount of cash needed to operate the funds, but functional and cost management responsibilities for the industrial and stock funds remained with the military departments and defense agencies.

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<sup>2</sup>DBOF activities also include the following defense agencies: Defense Finance and Accounting Service, Defense Commissary Agency, Defense Technical Information Center, Defense Reutilization and Marketing Service, and Defense Industrial Plant Equipment Center.

Modeled after private sector business operations, DBOF industrial and stock fund activities have a contractual (buyer-seller) relationship with their customers, primarily other elements in the military departments and defense agencies. These activities, for a fee, provide such services as the overhaul of ships, tanks, and aircraft and sell over 5 million types of vital inventory items, such as landing gears and other aircraft parts. Many of these items are essential to maintaining the military readiness of weapon systems and military personnel. Activities within DBOF have assets reportedly valued at \$126 billion and expect fiscal year 1995 revenue of \$77 billion, making them equivalent to one of the world's largest corporations.

When DBOF began in 1991, DOD reinstated a process where capital asset investments costing more than \$15,000 are purchased with revolving funds rather than through direct appropriations. DOD funds these capital investments by including depreciation expenses in the prices activities charge their customers. If the amount of depreciation is not sufficient to fully fund the investment program, DOD adds a surcharge to the price. Table 1 identifies the capital budgets for fiscal years 1993 through 1995, along with the amount of the surcharge added each year.

**Table 1: Capital Asset Budget and Depreciation Surcharges**

<b>Fiscal year</b>	<b>Capital asset budget (billions)</b>	<b>Surcharge (millions)</b>
1993	\$1.5	\$40.9
1994	1.8	31.5
1995	1.44	446.3 <sup>a</sup>

<sup>a</sup>DOD added the large fiscal year 1995 surcharge primarily to fund the Joint Logistics Systems Center. DOD considers this center a DBOF capital investment because the bulk of its funding goes directly to the development of DBOF-related financial and inventory management systems.

Although capital asset investments are financed through DBOF revolving funds, DOD prepares and submits an annual DBOF capital budget to the Congress, which identifies the projects each activity will undertake during the fiscal year. All projects costing \$500,000 or more must be shown as separate line items and fully explained and justified. Items under \$500,000, such as forklifts, trucks, and trailers, must be equally justified but can be combined as one budget line item for each business area.

The DBOF Policy and Responsibilities Statement issued on September 27, 1991, and service-level guidance require the services and defense agencies to justify all projects included in the capital budget sent to the Congress.

Among other things, budget developers must document the reasons for planned capital investment purchases and their expected benefits. This justification data should include the workload projections the purchase is based on as well as the source or rationale supporting the projections. In addition, the benefits of a capital project should be supported, depending on its dollar value and purpose, by some type of cost or economic analysis. The statement also requires that this justification data be retained and readily available for review, audit, or evaluation.

Higher service and defense agency command levels review and consolidate field activities' projects into budget submissions. These submissions are then sent to the DOD Comptroller for further review and evaluation. The Comptroller, in turn, consolidates the budget submissions into the capital budget, which is sent to the Congress.

## Large Percentage of Capital Projects Are Canceled or Postponed

The activities cited in tables 2 and 3 canceled or postponed 86 and 65 percent of the projects they included in the fiscal years 1993 and 1994 capital budgets, respectively. The value of these projects was \$40.3 million in fiscal year 1993 (57 percent of the activities' total capital budgets) and \$35.5 million in fiscal year 1994 (47 percent). Although the rate of cancellations and postponements varied, the Army activities, by far, were the least successful in carrying out their capital budgets. Tables 2 and 3 summarize the status of the fiscal years 1993 and 1994 capital budgets for the activities we visited.

**Table 2: Fiscal Year 1993 Cancellations and Postponements**

Dollars in millions

Activities visited	Projects in President's 1993 budget		Projects canceled or postponed		Percent canceled or postponed	
	Value	Number	Value	Number	Value	Number
Army depot maintenance activity <sup>a</sup>	\$41.2	246	\$28.5	225	69	91
Two Air Force activities	16.4	44	3.8	33	23	75
Two Navy activities	12.8	64	8.0	46	63	72
<b>Total</b>	<b>\$70.4</b>	<b>354</b>	<b>\$40.3</b>	<b>304</b>	<b>57</b>	<b>86</b>

<sup>a</sup>Although we visited two Army maintenance depots at Letterkenny, and Tobyhanna, Pennsylvania, we obtained statistics for all Army maintenance depots.

**Table 3: Fiscal Year 1994 Cancellations and Postponements**

Dollars in millions

Activities visited	Projects in President's 1994 Budget		Projects canceled or postponed		Percent canceled or postponed	
	Value	Number	Value	Number	Value	Number
Army depot maintenance activity <sup>a</sup>	\$35.7	109	\$23.3	91	65	84
Two Air Force activities	25.5	82	6.4	39	25	48
Two Navy activities	14.0	42	5.8	22	41	52
<b>Total</b>	<b>\$75.2</b>	<b>233</b>	<b>\$35.5</b>	<b>152</b>	<b>47</b>	<b>65</b>

<sup>a</sup>As in table 2, the data includes projects for all Army maintenance depots, not just the two we visited at Letterkenny, and Tobyhanna, Pennsylvania.

When a project was canceled or postponed, officials at the six activities we visited told us they usually substituted it with another project. The Air Force Materiel Command, for example, has given the San Antonio Air Logistics Center reprogramming authority for any project under \$500,000. Thus, when the DBOF capital budget is approved and funding levels are established for San Antonio, the local commander has the discretion to use that money for any capital project, not just those in the capital budget. In the fiscal year 1994 capital budget for the San Antonio Air Logistics Center, 77 of the 82 projects were less than \$500,000.

Even though the Air Force Systems Command directed the San Antonio Air Logistics Center to keep documentation showing why projects are canceled, local managers at the Center were not clear about these requirements. As a result, some files for canceled projects had been discarded and others were missing justification documents. Therefore, in many cases, we were unable to determine why a project was canceled or postponed.

The Navy activities we visited had similar authority to cancel and substitute capital projects under \$500,000. The Army activities, on the other hand, needed approval to cancel a project and substitute it with another. This approval, however, was not hard to obtain, as evidenced by the large percentage of canceled projects at the Army maintenance depots.

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DOD officials acknowledged that DBOF activities have not always executed the capital asset program as planned. To address this problem, DOD specifically listed the capital asset projects authorized for execution in the fiscal year 1994 annual operating budgets that were issued to the DBOF activities. The services and DOD components must report any deviation from the approved capital asset program to the DOD Comptroller's Office. This initiative could help improve program execution.

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## Poor Justification Process and Other Factors Caused Cancellations and Postponements

To determine why such a large percentage of projects are canceled or postponed, we interviewed managers at various levels of the capital budget preparation and review process. We also judgmentally selected and reviewed, in detail, 56 fiscal year 1994 budgeted projects for the 6 activities we visited. Based on this work, most cancellations and postponements seem to be occurring because DOD has not corrected the capital budgeting problems that existed before DBOF was created in 1991. In addition, Base Realignment and Closure decisions and other budget uncertainties have created an environment that contributed to capital projects being canceled and postponed.

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## Weaknesses in the Budget Justification Process Have Not Been Corrected

DOD's industrial activities used revolving funds to finance capital asset purchases between fiscal years 1983 and 1989 under what was known as the Asset Capitalization Program. In fiscal year 1990, the Congress terminated this program and began funding capital equipment purchases through the procurement appropriation. This change, which lasted 2 fiscal years, was aimed at giving the Congress greater visibility over capital equipment purchases. It was necessary because of significant implementation problems service audit agencies, inspector generals, and we repeatedly identified between 1986 and 1990.

Before DBOF was implemented, we reported<sup>3</sup> that DOD had not made the necessary changes to its capital equipment program. At that time, we concluded that the adoption of DOD's proposal to fund capital equipment through DBOF, prior to correcting the previously reported weaknesses, could continue the abuses and poor management practices we found with the Asset Capitalization Program. As described below, many of the previously described weaknesses have continued under DBOF.

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<sup>3</sup>Industrial Funds: Weaknesses Remain in the Department of Defense's Capital Equipment Program (GAO/NSIAD-91-175, Apr. 17, 1991).



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### Capital Purchases Are Not Based on Long-Range Strategic Plans

One of the major implementation problems with the Asset Capitalization Program was that the industrial fund activities lacked a systematic approach to identifying capital investment opportunities. Although each of the activities was required to prepare long-range (3 to 7 years) strategic plans that identified facility and equipment requirements, these plans were not being used consistently to guide the activities' current equipment needs or to buy priority equipment. As a result, these activities had no assurance that their most critical long-term needs were being met through the Asset Capitalization Program.

A similar situation existed at the six activities we visited. Although DOD relies on these activities to identify most of their capital equipment needs, these needs were not linked in any systematic way to the activities' long-range requirements and future missions. In fact, the activities were no longer preparing long-range strategic plans. Several managers told us they lacked the resources to keep long-range plans current, and the downsizing environment reduced the emphasis on long-range planning. Officials at the two Army activities we visited said that long-range plans are no longer required.

Instead, the activities generally relied on local managers to identify and rank capital investment needs. For example, the Naval Air Warfare Center at Warminster, Pennsylvania, initially allows department heads to identify capital projects. These are reviewed and prioritized by a management board, approved by the Warminster Commanding Officer and other officials, and subsequently reviewed by several additional layers in the Navy and the DOD Comptroller.

However, (1) no documentation is prepared that links capital investment projects to Warminster's long-term or future requirements, (2) Warminster officials canceled or postponed a large number of projects in the 1994 capital budget, and (3) higher level reviewers within the Navy seldom question the projects selected by the field activities. They said the activities and their commands were in the best position to know which projects best suited their requirements. This environment, in our view, does not provide the control necessary to ensure that the projects selected are the ones that best match long-range requirements.

### Capital Projects Are Not Adequately Justified, Reviewed, and Approved

Another major implementation problem with the Asset Capitalization Program was that the industrial fund activities were not complying with procedures for justifying and approving capital projects. By not following these requirements, the activities had no assurance that capital resources

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were being used on the best projects. It also did not give them a baseline to measure the financial benefits of the projects.

During our audit work, we found that not much had changed. The Army activities, for example, were not performing any project analysis or preparing justifications until the year of execution. That is, justification documents for fiscal year 1993 projects were being prepared in fiscal year 1993, not in fiscal year 1991 when the budget was prepared. As a result, the budget was little more than a listing of projects local managers believed could be done within expected budget allocations. The Army Depot System Command also included a \$5.4-million “contingency” amount (for which there were no specific projects) in the fiscal year 1994 capital budget sent to the Congress.

The consequence of this process is that when the Army activities performed an analysis, usually prior to or as part of the procurement action, they found many projects were not high priority. For example, one of Letterkenny’s 1994 projects was for a machine that punches holes in various metal components and precuts reinforcement rods for concrete applications. The existing machine was over 13 years old and beyond its estimated life expectancy. For that reason, a project to replace the machine was included in the budget, but when an analysis later showed that the existing machine was in good shape, the project was canceled. At the time of our review, the Army was aware of the deficiencies in its capital budget justification process and was taking action to improve the process, starting with the fiscal year 1994 capital budget.

Although the problems were not as systemic at the Air Force and the Navy activities we visited, none were fully adhering to sound justification and approval criteria for capital investments. A major part of the problem is that DOD’s current capital investment guidance for DBOF activities does not adequately describe how to justify a capital investment project. More importantly, the services have not yet developed detailed implementing policies and procedures for the field activities to follow. As a result, the activities were using service-level and local guidance that was either severely deficient or out of date. The Air Force, for example, was using expired guidance from the old Asset Capitalization Program. This guidance did not (1) reflect the major reorganization that had taken place at the San Antonio Air Logistics Center, (2) assigned duties to management positions that no longer existed, and (3) identified the capital asset threshold as \$5,000 rather than \$15,000. Also, the Navy activities we visited were using expired guidance and instructions from other Navy commands.

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This lack of policies and procedures was confirmed in a report issued in July 1993 by the DBOF Implementation Review Group. This group, chartered by the Secretary of Defense, concluded that documentation requirements for capital investment decisions are not clearly defined and managers do not understand the process. It recommended that the DOD Comptroller clarify policy on techniques and procedures for investment analysis. This group also issued a DBOF improvement plan in September 1993 that tasked the DOD Comptroller to develop guidance on the techniques and procedures for analysis and documentation of capital projects. Implementation was anticipated for late 1994.

**Program Benefits Are Not Measured**

An effective capital investment program contains a mechanism for analyzing whether the projects meet the projected financial benefits and for collecting data so that management can make better investment decisions. This mechanism, called a post-investment analysis, was generally not done under the old Asset Capitalization Program. As a result, when we assessed this program in 1989, we concluded that DOD did not know what benefits the program had produced or if equipment purchased had actually been used. This was important because we found many completed projects that had not achieved anticipated results.

Current DBOF criteria requires a post-investment analysis for any capital project that was justified wholly or partially on the basis of economic considerations. During our visits, we did not look at completed projects to determine whether they had achieved anticipated results, but we did find that none of the activities were doing post-investment analyses. A San Antonio Air Logistics Center official said, for example, that the Air Force Materiel Command no longer required this type of analysis. The Navy, on the other hand, had specific criteria for performing a post-investment analysis. Unfortunately, activity managers at the Navy's Lakehurst and Warminster facilities said that they do not do these type of analyses. A Warminster official cited resource constraints as the primary reason for not performing a post-investment analysis.

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**Uncertain Environment Places a High Premium on Capital Investment Planning**

All the activities we visited were affected by military downsizings, base closure and realignment decisions, and other DOD management initiatives. Since 1991, for example, the Letterkenny Army Depot has been either closed, downsized, realigned, or had its mission expanded because of the Base Realignment and Closure process. Likewise, the Naval Air Warfare Center at Warminster, Pennsylvania, will move to Patuxent River,

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Maryland, and become part of the Navy's Aircraft Division as part of the 1991 Base Realignment and Closure recommendations.

Although the San Antonio Air Logistics Center was not directly affected by closure and realignment decisions, all air logistics centers and DOD depots are going through major changes that could affect their missions. In recent testimony, we discussed such issues as depot closings, DOD efforts to arrive at a proper mix of depot maintenance work between public and private sectors, and the public-private competition initiative DOD is using to allocate the depot maintenance workload.<sup>4</sup>

According to agency officials, these initiatives plus other workload shifts (e.g., B-52 maintenance is moving from San Antonio to the Oklahoma City Depot) has made their capital asset needs hard to predict. Considering that the DBOF budget is prepared at the field level almost 18 months before the fiscal year it will be executed in, these officials said they were not surprised by the large number of cancellations and postponements.

However, in our review of the 56 projects, we were only able to tie 3 of the 36 cancellations and postponements specifically to the uncertainty of the downsizing environment. A number of projects were canceled because of "other higher priority requirements." This was particularly true at the San Antonio Air Logistics Center. Because this Center did not always keep documentation associated with the cancellation decision, we were not able to determine if the cancellations were linked to specific changes in the Center's business environment.

We understand the challenge DOD faces in trying to manage its capital investment program during this period of uncertainty. At the same time, we believe adequately justifying capital investment projects and linking them to the long-range strategic plans for each activity is more important than ever. Without the discipline associated with such a sound investment planning process, funds can be wasted on either unneeded or low priority projects.

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## Budget Presentation Does Not Adequately Reflect Project Changes

DOD's capital budget includes projects for 3 fiscal years: the current year under consideration and an update of the 2 prior years' budgets. For example, the fiscal year 1994 budget, which DOD submitted to the Congress

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<sup>4</sup>Depot Maintenance: Issues in Allocating Workload Between the Public and Private Sectors (GAO/T-NSIAD-94-161, Apr. 12, 1994).

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in April 1993, included capital projects proposed for 1994 and an updated list of 1992 and 1993 projects.

We found that it was difficult to track the changes that occurred between the fiscal year 1993 budget and the 1993 update, primarily for two reasons. First, most capital projects (those under \$500,000) are summarized by DBOF business area and identified by single line items in the budget. Therefore, it is impossible for us or the Congress to determine which or how many projects have been canceled without comparing detailed backup information for the 2-year period. Second, DOD does not indicate in the budget update what projects over \$500,000 are replacements. The only way to tell is to compare the update with the previous year's budget, which is a labor-intensive effort subject to error. For example, we noted that three planned fiscal year 1993 projects over \$500,000 were not in the subsequent budget update and assumed they had been canceled. However, a service official pointed out that they had not been canceled. As a result of new cost estimates of less than \$500,000, these projects were no longer identifiable as separate budget line items. They were still in the budget but as part of other budget categories.

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## DOD Has Developed New Capital Asset Justification Criteria

In response to the DBOF Implementation Review Group's September 1993 recommendations, DOD has developed new guidance for justifying and performing economic analyses for DBOF capital investment projects. This guidance requires that all capital projects included in the DBOF capital budget be supported by a sound analytical evaluation. Based on our review of the guidance, we believe that it has the potential—if effectively implemented—to address most of the problems we found with DOD's capital investment justification process.

The guidance requires DOD components to prepare a thorough economic analysis for all DBOF projects over \$100,000 at least 18 months before the year of execution; certain environmental and equipment replacement projects are exempt. In addition, it requires activities to prepare project documentation that, among other things, describes the need for the project, workload projections that support the requirement, feasible alternatives considered, total project costs and savings expected over a 10-year period, estimating methods, and intangible benefits.

Similar requirements would apply to projects under \$100,000, except that the economic evaluation would be less than a complete economic analysis. We believe these changes will help solve the budget justification

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deficiencies and require DBOF activities to include only its highest priority projects in the capital budget.

We do have three concerns about the new guidance. First, it makes no mention about the need to link capital projects to the long-range investment needs of the DBOF activity. DOD officials said, and to a certain extent we agree, that the strict justification requirements will reduce the likelihood that any unneeded project could be supported. They also pointed to new budget guidance that requires capital assets to meet long-range planning and programming objectives. Nevertheless, any new capital investment policy would be remiss if it did not require a direct link between large capital investments and the long-range mission of the installation. Long-range planning is even more important in an environment of downsizing since activities need to maximize shrinking resources.

Second, the new guidance advocates investment decision criteria that may not produce the greatest net benefits. For projects less than \$100,000, for example, the draft guidance requires activities to use “payback” (the time necessary for an alternative to repay its investment cost) as the primary indicator to rank order projects. For projects equal to or over \$100,000, the “benefit-to-investment ratio” (total present value of benefits divided by total present value of costs) is to be the primary indicator for ranking projects. This is contrary to the Office of Management and Budget (OMB) criteria,<sup>5</sup> a recent GAO report,<sup>6</sup> and current economic literature that advocates “net present value” as the appropriate criterion for choosing among independent, competing investment projects. “Net present value” is the difference between the present value of benefits and the present value of total costs. It is favored over other indicators because it more consistently results in the selection of projects with the greatest benefits, net of cost. (See app. I for numerical examples.) Furthermore, DOD would not need any additional information, beyond that necessary to calculate payback and benefit-to-investment ratios, to calculate net present value.

Third, the new policy guidance will require a major adjustment in the way activities select and justify capital projects—in effect a cultural change. We believe such a change will not come about just by issuing a new policy statement, particularly for such long-standing problems. In February 1992, we reported that private companies use a combination of techniques to

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<sup>5</sup>U.S. Office of Management and Budget, Circular No. A-94 (revised Oct. 29, 1992).

<sup>6</sup>Federal Budget: Choosing Public Investment Programs (GAO/AIMD-93-25, July 1993).

successfully change their cultures.<sup>7</sup> Two techniques most important to success were (1) top management support and commitment to the effort and (2) training of employees to instill in them the organization's new mission, values, and guiding principles. Other key techniques included communicating the organization's vision and goals to its employees and creating a specific management style that reinforces this desired vision and these goals. Unless DOD addresses these types of issues, we do not believe the new policy will be any more successful than the out-of-date and inadequate guidance that currently exists.

## DOD Did Not Identify Capital Asset Program Deficiencies as a Material Weakness

Under the Federal Managers' Financial Integrity Act, the Secretary of Defense is required to review DOD's internal accounting and administrative controls to provide reasonable assurances that funds, property, and other assets are safeguarded against waste, loss, unauthorized use, or misappropriation and that internal management controls emphasize prevention and correction of specific problems. DOD has not identified the capital asset program deficiencies we cite in our report as material weaknesses requiring corrective action.

## Recommendations

We endorse the direction that DOD has taken to improve the capital investment justification process. To build on those planned actions, we recommend that the Secretary of Defense

- require that the new DBOF policy statement on capital budget investment projects include requirements to (1) link capital investment projects to the DBOF activities long-range plans and missions and (2) rely on net present value as the primary investment decision criterion for rank ordering competing capital investment projects;
- develop plans and schedules for training the key people responsible for implementing the new guidance;
- develop mechanisms to track implementation of the new guidance and hold managers accountable for achieving the intent of the guidance;
- include capital asset justification program deficiencies as a material weakness in the Federal Managers' Financial Integrity Act report; and
- identify, in its annual DBOF capital budget update, (1) projects canceled or postponed since submission of the last budget and (2) projects selected as replacements for those canceled or postponed.

<sup>7</sup>Organization Culture: Techniques Companies Use to Perpetuate or Change Beliefs and Values (GAO/NSIAD-92-105, Feb. 27, 1992).

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## Agency Comments and Our Evaluation

DOD reviewed a draft of this report and provided written comments. In summary, DOD agreed that there was an overall need to improve its policies governing the management of the DBOF capital asset program and that it had recently made such changes, which it said were consistent with improvements suggested in this report. (See app. II.) It disagreed, however, with our recommendations to use net present value as the primary investment decision criterion for choosing among competing investment projects and to cite capital asset justification deficiencies in the Federal Managers' Financial Integrity Act report.

DOD offers no specific reason it has not adopted net present value as the primary criterion for choosing among competing investment projects. DOD's comments refer to its new DBOF policy statement that it believes allows managers to consider net present value along with other economic indicators. While the policy statement does require DBOF managers to calculate net present value for each investment project, it says they should use either payback or benefit-to-investment ratio as the primary criterion for ranking projects. As we discuss earlier, this is inconsistent with OMB economic criteria and could cause managers to select projects that will not produce the greatest net benefits. (See app. I.)

DOD also said that the capital asset program deficiencies we identified are not sufficient to require inclusion under the Federal Managers' Financial Integrity Act and that its new policy changes are expected to achieve the desired improvements and internal controls. We disagree. The problems with DOD's capital investment program are long-standing and have been reported many times by us, the Inspectors General, and service audit agencies over the past 6 years. Although the new policy statement is a step in the right direction, we believe DOD needs high-level management oversight and attention to achieve effective implementation. Listing the program as a material weakness in the Federal Managers' Financial Integrity Act report provides an added level of management attention. Further, during the fiscal year 1995 defense authorization process, the Senate and House Committees on Armed Services considered the problems in this area serious enough to reduce the money available for capital asset purchases by \$160 million (from \$1.6 billion spending authority requested by DOD to \$1.44 billion). This emphasizes the need for DOD to address this issue as a material weakness and ensure that improvements are effectively implemented. Additional DOD comments and our responses appear in appendix II.



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We performed our audit work between December 1992 and June 1994 in accordance with generally accepted government auditing standards. (See app. III for details on our scope and methodology.) We will also be sending copies to the Chairmen, Senate Committee on Governmental Affairs, House Committee on Government Operations, and Senate and House Committees on Appropriations; the Director, Office of Management and Budget; the Secretaries of Defense, the Army, the Navy, and the Air Force; and other interested parties. We will make copies available to others on request.

If you have any additional questions, please contact me on (202) 512-8412. Major contributors to this report are listed in appendix IV.



Donna M. Heivilin, Director  
Defense Management and  
NASA Issues

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## Abbreviations

DBOF	Defense Business Operations Fund
DOD	Department of Defense
OMB	Office of Management and Budget
OSD	Office of the Secretary of Defense

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# Basis for Using Net Present Value

The new policy guidance states that the primary criterion used for evaluating alternative investments should depend on the cost of the project. For projects under \$100,000, the guidance requires the minimum payback period; for those \$100,000 or more, it requires the maximum ratio of benefit to investment cost. This appendix presents some simple numerical examples to demonstrate that it is possible for either of these two criteria to signal the selection of one or more projects that differ from the selection signaled by the maximum net present value criterion.<sup>1</sup>

The minimum payback period criterion calls for selection of the project that recovers its investment cost in the shortest period of time. Table I.1 shows a comparison of two competing, mutually exclusive projects.

**Table I.1: Comparison Based on Payback Period**

Project	Initial cost ( $C_0$ )	First year net benefits ( $B_1 - C_1$ )	Second year net benefits ( $B_2 - C_2$ )
A	100	110	1
B	100	0	1000

Both projects require an initial outlay of \$100, the total budget available for investment, and both last 2 years. The cost of project A is recouped during the first year, while cost recoupment for project B does not occur until the second year. According to the minimum payback period criterion, therefore, A should be the project chosen. However, considering the size of the second year payoffs (\$1,000) relative to those of the first year (\$110), the minimum payback period judgment is clearly faulty.

The maximum benefit-to-cost ratio (B/C) criterion can signal the wrong selection of projects. Once again, consider two competing, mutually exclusive projects, A and B, only one of which can, due to a limited budget, be selected. The life span of each project is 1 year. Suppose that the interest rate appropriate for discounting purposes is 5 percent. Table I.2 compares these projects.

<sup>1</sup>All of these examples are taken from Peter G. Sassone and William A. Schaffer, *Cost-Benefit Analysis: A Handbook* (New York: Academic Press, 1978), pp. 15 and 19-21.

**Appendix I**  
**Basis for Using Net Present Value**

**Table I.2: Comparison Based on Benefit-to-Cost Ratio**

Project	Initial period		Next period		B/C	NPV <sup>a</sup>
	(B <sub>0</sub> )	(C <sub>0</sub> )	(B <sub>1</sub> )	(C <sub>1</sub> )		
A	0	1	2	0	1.9	0.9
B	0	5	8	0	1.5	2.6

<sup>a</sup>Net present value.

According to the maximum benefit-to-cost ratio criterion, project A should be chosen because its B/C, 1.9, exceeds that of project B, 1.5. Yet a comparison of total benefits net of costs clearly indicates that project B is preferable because project B's net benefit, \$2.60, exceeds that of project A, \$0.90.

Both of the preceding examples tacitly assume that only two projects are candidates for selection. Situations can arise, of course, when two or more projects can be selected, subject to a budget constraint. In such a situation, ranking projects by their benefit-to-cost ratios and choosing successively lower ranked projects (beginning with the project having the largest benefit-to-cost ratio) will maximize total net present value.

# Comments From the Department of Defense

Note: GAO comments supplementing those in the report text appear at the end of this appendix.



OFFICE OF THE COMPTROLLER OF THE DEPARTMENT OF DEFENSE

WASHINGTON, DC 20301-1100

SEP 16 1994

(Financial Systems)

Mr. Frank C. Conahan  
Assistant Comptroller General  
National Security and International  
Affairs Division  
U.S. General Accounting Office  
Washington, D.C. 20548

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "DEFENSE BUDGET: Capital Asset Projects Undergo Significant Change Between Approval and Execution," dated July 19, 1994 (GAO Code 398135/OSD Case 9741). The DoD partially concurs with the report.

The DoD concurs that there is an overall need for improvements in the policies governing the management of the Defense Business Operations Fund (DBOF) capital asset program. The DoD has recently revised the policies governing the requirements for economic analysis and long-range planning assessments. The improvements are consistent with those suggested by the GAO.

The DoD does not agree, however, that net present value should be the primary investment decision criterion for choosing among competing investment projects. The new DoD economic analysis policy requires analyses be prepared on a net present value basis for investments equal to, or greater than, \$100,000. That policy will help ensure consistency among the DBOF business area investment program justifications.


The DoD also does not agree that the capital asset justification program deficiencies cited in the GAO report should be included in the Federal Managers' Financial Integrity Act report. The Department has identified the need for improvements for the capital asset program and has developed policy changes that should improve the overall management. Implementation of those improvements is expected to enhance existing internal controls.

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**Appendix II**  
**Comments From the Department of Defense**

The detailed DoD comments on the report findings and recommendations are provided in the enclosure. The DoD appreciates the opportunity to comment on the draft report.

Sincerely,

  
Richard F. Keevey  
Deputy Comptroller  
(Financial Systems)

Enclosure

GAO DRAFT REPORT DATED JULY 19, 1994  
(GAO CODE 398135) OSD CASE 9741

"DEFENSE BUDGET: CAPITAL ASSET PROJECTS UNDERGO SIGNIFICANT  
CHANGE BETWEEN APPROVAL AND EXECUTION"

DEPARTMENT OF DEFENSE COMMENTS

\* \* \* \* \*

FINDINGS

- o **FINDING A: The DoD Capital Asset Program.** The GAO found that the Defense Business Operations Fund (DBOF) policy and responsibilities statement issued on September 27, 1991, and Military Service-level guidance require the Services and Defense agencies to justify all projects included in the capital budget sent to the Congress. The GAO pointed out that budget developers must document the reasons for planned capital investment purchases and the expected benefits. The GAO added that the justification data should include the workload projections the purchase is based on, as well as the source or rationale supporting the projections. The GAO indicated that the statement also requires that the justification data be retained and readily available for review, audit, or evaluation. (pp. 5-6/GAO Draft Report)

**DOD RESPONSE:** Concur. The DoD budget guidance requires that each proposed acquisition of a capital asset shall be reviewed to ensure that it satisfies the following criteria:

- the asset is economically feasible to purchase, rather than to lease;
- acquisition of the asset meets the Department long-range planning and programming objectives and satisfies a documented need that cannot be met by existing equipment and facilities or by contract;
- the acquisition complies with DoD Directive 4275.5, "Acquisition and Management of Industrial Resources" and other policies governing the lease and acquisition of equipment and facilities;
- workload projections must take into account the results of interservice decisions, workload posture planning decisions, readily available commercial alternatives, and other reasonable options for accomplishing workload; and

Enclosure

Now on pp. 3 and 4.



-- assets recommended for acquisition shall be those which efficiently and effectively accomplish the objective for which they are justified. The criteria are: improved efficiency (savings) or effectiveness; required new capability and capacity; replacement of unsafe, beyond economical repair, or inoperative and unusable assets; and environmental, hazardous waste reduction, or regulatory agency mandated requirements.

Annual budget guidance requires the budget to include detailed justification on acquisitions equal to or greater than \$500,000. Acquisitions less than \$500,000 are combined in a single category--detailed justification for each of those projects is not included in the budget. As described above, every capital asset acquisition requires a thorough assessment and documentation based upon a standard set of criteria. To further enhance the assessment and justification process, the DoD recently revised the policy governing requirements for economic analysis for capital investments. The policy requires a complete analysis for any capital project greater than or equal to \$100,000, and a simpler cost comparison for projects between \$25,000 and \$100,000. The policy also prescribes the form and content of the analysis in order to ensure consistency. The policy will encourage the development of more extensive documentation for capital projects.

- o **FINDING B: Large Percentage of Capital Projects Are Canceled or Postponed.** The GAO found, at the six activities visited, that when a project was canceled or postponed another project was usually substituted. The GAO found that, for example, the Air Force Materiel Command gave the San Antonio Air Logistics Center reprogramming authority for any project under \$500,000. The GAO noted that in the FY 1994 capital budget for the San Antonio Air Logistics Center, 77 of the 82 projects were less than \$500,000. The GAO found that even though the Air Force Systems Command directed the San Antonio Air Logistics Center to keep documentation showing why projects are canceled, local managers at the Center were not clear about the requirements. The GAO indicated that some files for canceled projects had been discarded and others were missing justification documents, therefore, the GAO was unable to determine why a project was canceled or postponed.

According to the GAO, the Navy activities visited had similar authority to cancel and substitute capital projects under \$500,000--the Army activities, on the other hand, needed approval to cancel a project and substitute it with another. The GAO pointed out that the approval, however, was not hard to obtain, as evidenced by the large percentage of canceled projects at the two Army activities

See comment 1.

visited. The GAO found that DBOF activities have not always executed the capital asset program. The GAO acknowledged that, to address the problem, the DoD specifically listed the capital asset projects authorized for execution in the FY 1994 annual operating budgets issued to the DBOF activities. The GAO also recognized that the Military Services and the DoD components must report any deviation from the approved capital asset program to the DoD Comptroller, which the GAO concluded could help improve program execution. (pp. 6-9/GAO Draft Report)

Now on pp. 5 and 6.

**DOD RESPONSE:** Concur. The DoD agrees that improvements in the management of the capital asset program are necessary. As the GAO has observed in the report, operating managers are not at all surprised by a large number of cancellations and postponements given the 18-month lag between budget preparation and budget execution at the activity level. Alterations to budget plans are even greater due to the changing environment the Department currently finds itself operating within. In addition, changes to the planned workload and the way the DoD does business drive adjustments to the planned capital asset program. The DoD activities are currently undergoing dramatic changes that impact the DBOF business area operations and the capital programs for each. Such factors as force structure reductions, workload shifts among depots, unexpected environmental requirements, process improvement initiatives, equipment reutilization and disposal, industrial base assessment recommendations such as consolidation of machine shops, and Base Realignment and Closure actions, all drive changes during the 18-month budget development process.

The DoD policy requires OSD approval for substitutions of automatic data processing equipment and telecommunications equipment greater than or equal to \$100,000, and for other capital projects greater than or equal to \$500,000. Also, funding documents for DBOF business areas now list approved capital projects. All capital asset projects are assessed against criteria which address considerations such as lease versus buy, long-range plans, acquisition policies, workload, and efficiency and effectiveness considerations. The Department requires a high level of cost accountability from managers of DBOF business areas. Local flexibility to react to changes in operating requirements is encouraged. The DoD provides a reasonable policy to ensure effective controls and sufficient flexibility for the management of the capital program.

See comment 2.

- o **FINDING C: Weaknesses in the Budget Justification Process Have Not Been Corrected.** The GAO observed that the DoD used revolving funds to finance capital asset purchases

under the Asset Capitalization Program until FY 1990 when the Congress terminated the program and began funding purchases through the procurement appropriation. The GAO noted that the change--which lasted 2 fiscal years--was aimed at giving the Congress greater visibility over capital equipment purchases. The GAO reported in a 1991 report (OSD Case 8616) that the DoD had not made the necessary changes to the capital equipment program. The GAO concluded in the 1991 report that funding the capital equipment through the DBOF--prior to correcting the reported weaknesses--could continue the abuses and poor management practices found with the Asset Capitalization Program. According to the GAO, many of the previously described weaknesses have continued under the DBOF. (pp. 10-11/GAO Draft Report)

Now on p. 6.

**DOD RESPONSE:** Nonconcur. The DoD does not agree that weaknesses in the budget justification process have not been corrected. As discussed in the DoD response to Finding A, the DoD has developed a new economic analysis policy to correct weaknesses in the justification process. The policy was developed with the full participation of affected DoD Components, which should help ensure broad compliance among the Components. Further, as discussed in the DoD response to Finding B, the DoD has made several improvements in capital project funding policies in the areas of identification of approved projects and project substitutions. Those are significant improvements which will serve to correct weaknesses in the budget justification process.

See comment 3.

- o **FINDING D: Capital Purchases Are Not Based on Long-Range Strategic Plans.** The GAO concluded that one of the major implementation problems with the Asset Capitalization Program was that the industrial fund activities lacked a systematic approach to identifying capital investment opportunities. The GAO reported that, although the DoD relies on the activity level to identify most of the capital equipment needs, the needs were not linked in any systematic way to the long-range requirements and future missions of the activities. The GAO found that the activities lacked the resources to keep long-range plans current and the downsizing environment reduced the emphasis on long-range planning. The GAO added that, instead, the activities relied on local managers to identify and rank capital investment needs. The GAO reported that, for example, the Naval Air Warfare Center initially allows department heads to identify capital projects, which are then reviewed by several additional layers in the Navy and the DoD Comptroller. The GAO concluded that procedure does not provide the control necessary to ensure that the projects selected are the ones that best match long-range requirements. (pp. 11-13/GAO Draft Report)

Now on p. 7.

See comment 4.

**DOD RESPONSE:** Partially concur. The DoD agrees that long-range planning is essential to effective management of capital projects and that improvements are needed. However, the DoD does not concur that the necessary controls are not in place to ensure selected projects match long-range plans. The DoD recently provided revised budget guidance policy pertaining to capital investments that requires increased attention to long-range plans. The May 1994, DoD Financial Management Regulation, Volume 2A, Budget Presentation and Formulation, Chapter 9, Section 090103 states that the acquisition of a capital asset meets the Department long-range planning and programming objectives and results in satisfying a documented need for the capability to perform valid operations, functions, or services that cannot be performed as effectively or economically by the use of existing equipment and facilities, or by contract. In addition, revised economic analysis policy requirements now require projections of differential costs for up to six years for investments costing less than \$100,000, and for over the useful life for investments costing \$100,000 or more. The emphasis is upon a forward-looking assessment of the costs and benefit consistent with organizational plans. It is the DoD position that local managers of DBOF activities must be permitted the flexibility to alter plans to meet unforeseen exigencies. The DoD maintains that the cited improvements will remedy many of the planning problems associated with the old Asset Capitalization Program.

- o **FINDING E: Capital Projects Are Not Adequately Justified, Reviewed, and Approved.** The GAO reported that the industrial fund activities were not complying with procedures for justifying and approving capital projects. The GAO asserted that, as a result, activities had no assurance that capital resources were being used on the best projects, and there was no baseline to measure the financial benefits of the projects. The GAO explained that in the Army, activities were not performing any project analysis or preparing justifications until the year of execution--that is, justification documents for FY 1993 projects were being prepared in FY 1993, not in FY 1991 when the budget was prepared. Therefore, the GAO observed that the budget was little more than a listing of projects that the local managers believed could be done within expected budget allocations. The GAO acknowledged that at the time of the review, the Army was aware of the deficiencies in the capital budget justification process and was taking action to improve the process, starting with the FY 1994 capital budget.

The GAO reported that although the problems were not as systemic at the Air Force and Navy activities visited, none

were fully adhering to sound justification and approval criteria for capital investments. According to the GAO, a major part of the problem is that the DoD current capital investment guidance for DBOF activities does not adequately describe how to justify a capital investment project.

The GAO added that the Military Services have not yet developed detailed implementing policies and procedures for the field activities to follow. The GAO indicated that the field activities were using Service-level and local guidance that was either severely deficient or out of date. The GAO noted that the Air Force, for example, was using expired guidance from the old Asset Capitalization Program. The GAO further noted that the Navy activities reviewed were using expired guidance and instructions from other Navy commands. The GAO concluded that the lack of policies and procedures was confirmed in a report issued in July 1993 by the DBOF Implementation Review Group. The GAO observed that the DBOF Group recommended that the DoD Comptroller clarify policy on techniques and procedures for investment analysis. The GAO further observed that the Group also issued a DBOF Improvement Plan in September 1993, which tasked the DoD Comptroller to develop guidance on the techniques and procedures for analysis and documentation of capital projects. The GAO mentioned that implementation is anticipated for late 1994. (pp. 13-15/GAO Draft Report)

Now on pp. 7-9.

**DOD RESPONSE:** Partially concur. The DoD agrees that improvements in the justification, review, and approval of the capital projects were required. However, the DoD does not agree that current capital investment guidance does not adequately describe how to justify a capital investment project. The DoD confirmed the need for improved policies and procedures during the 1993 review of DBOF implementation. As a consequence of that review, the DoD issued improved budget guidance in the Financial Management Regulation and recently developed an improved policy governing the preparation of economic analyses to support capital projects. The revised policy requires those analyses to be completed approximately 18 months prior to the year of execution, and to be reassessed approximately six months before the year of execution. The policy also provides a standard format for the analyses, thereby encouraging a consistent and commonly understood approach to capital program justifications. The DoD anticipates effective implementation of the guidance due to the extensive involvement of the Military Services and other components in its development.

See comment 5.

See comment 6.

- o **FINDING F: Program Benefits Are Not Measured.** The GAO reported that current DBOF criteria requires a post-investment analysis for any capital project that was

justified wholly or partially on the basis of economic considerations. The GAO found that none of the activities were doing postinvestment analyses. The GAO indicated, for example, that the Air Force Materiel Command no longer required that type of analysis. The GAO found, however, that the Navy had specific criteria for performing a post-investment analysis. (pp. 15-16/GAO Draft Report)

Now on p. 9.

**DOD RESPONSE:** Partially concur. The DoD agrees that effective capital investment programs must contain a mechanism for analyzing whether the projects meet the projected financial benefits. However, the DoD does not agree with the GAO implication that there is little being done to improve the emphasis upon postinvestment analysis. Current budget guidance in the DoD Financial Management Regulation requires postinvestment analyses for capital projects greater than or equal to \$100,000. The recently revised economic analysis policy emphasizes the requirement for postinvestment analyses and requires the analyses be retained for ready review for five years. The DoD anticipates that the renewed emphasis upon economic analysis in future budgets will ensure better assessments of program benefits.

See comment 7.

- o **FINDING G: Uncertain Environment Places a High Premium on Capital Investment Planning.** The GAO observed that all the activities reviewed were affected by military downsizings, base closure and realignment decisions, and other DoD management initiatives. The GAO reported that, although agency officials indicated that the initiatives made the capital asset needs hard to predict, the GAO found only 3 of the 36 cancellations and postponements specifically tied to the uncertainty of the downsizing environment. The GAO recognized that the DoD faces challenges in trying to manage the capital investment program during the period of uncertainty. The GAO concluded, however, that without the discipline associated with such a sound investment planning process, funds can be wasted on either unneeded or low priority projects. (pp. 17-18/GAO Draft Report)

Now on pp. 9 and 10.

**DOD RESPONSE:** Partially concur. The DoD agrees that improvements in the planning of the capital asset program are necessary. However, the DoD does not agree that cancellations and postponements are typically not related to the downsizing environment. As stated in the DoD response to Finding B, DBOF activities are currently operating in a changing environment, which drives significant changes in planned workload and even the means by which work is accomplished. Those changes can have a dramatic impact upon the planning of capital programs.

As discussed in the DoD response to Finding D, the DoD recently developed revised budget guidance policy

pertaining to capital investment planning requiring increased attention to long-range plans and projections of differential costs over the useful life of the investment. Further, as discussed in the DoD reponse to Finding B, the changes in funding control policies should also serve to improve the capital project planning process.

- o **FINDING H: Keeping the Congress Informed of Budget Changes.** The GAO reported that the DoD capital budget includes projects for three fiscal years--the current year under consideration and an update of the two prior years' budgets. The GAO reported that it was difficult to track the changes that occurred between the FY 1993 budget and the 1993 update. The GAO explained that (1) most capital project (those under \$500,000) are summarized and identified by a single line item in the budget and (2) the DoD does not indicate in the budget update what projects over \$500,000 are replacements. (pp. 19-20/GAO Draft Report)

**DOD RESPONSE:** Concur. The DoD concurs that the budget must serve to keep the Congress informed of budget changes. As discussed in the DoD response to Finding A, the budget includes detailed justification only on acquisitions equal to or greater than \$500,000. However, every capital asset acquisition requires a thorough assessment against a standard set of investment criteria. In addition, the DoD response to Finding A also discusses improved policies governing the requirements for economic analysis for capital investments. Those policies will encourage the development of more extensive documentation in support of capital projects. Additionally, in order to ensure a full accounting in the budget for significant changes in the capital program, the DoD will highlight in the FY 1996/1997 budget submission cancellations, postponements, and any related substitutions for projects greater than or equal to \$500,000. Given the volume of projects below \$500,000, however, the emphasis on specific justification in the budget process will continue to be upon projects meeting the \$500,000 threshold.

- o **FINDING I: The DoD Is Developing New Capital Asset Justification Criteria.** The GAO reported that the DoD is developing new guidance for justifying and performing economic analyses for the DBOF capital investment projects. The GAO indicated that in the guidance, the DoD is proposing that all capital projects included in the DBOF capital budget be supported by a sound analytical evaluation. The GAO explained that the implementation of the guidance--if approved and effectively implemented--addresses most of the problems the GAO found with the DoD

Now on pp. 10 and 11.

See comment 8.

capital investment justification process. Concerning the draft guidance, the GAO found that:

- There is no mention about the need to link capital projects to the long-range investment needs of the DBOF activity. The GAO agreed, to a certain extent, that the strict justification requirements will reduce the likelihood that any unneeded project could be supported. The GAO indicated that any new capital investment policy would be remiss if it did not require a direct link between large capital investments and the long-range mission of the installation.
- It eliminates the need for activities to perform a postinvestment analysis. The GAO concluded that to eliminate the requirements when the DoD has several initiatives underway to assess the costs of operations and become more efficient appears inconsistent.
- Investment decision criteria is included that may not produce the greatest net benefits. The GAO observed that the guidance is contrary to the Office of Management and Budget criteria, a recent GAO report (non-DoD related), and current economic literature that advocates net present value as the appropriate criterion for choosing among independent, competing investment projects. The GAO concluded that the DoD would not need any additional information, beyond that necessary to calculate payback and benefit to investment ratios, to calculate net present value.
- A major adjustment in the way activities select and justify capital projects will be required. The GAO referred to a previous report (OSD Case 8973) in which the GAO discussed two techniques used by private companies to successfully change cultures--top management support and commitment to the effort and training of employees to instill the new mission, values, and guiding principles of the organization. The GAO concluded that, unless the DoD addresses those types of issues, the new policy will not be any more successful than the current outdated and inadequate guidance. (pp. 20-23/GAO Draft Report)

**DOD RESPONSE:** Partially concur. The DoD agrees that improved policies concerning economic analysis requirements will address most of the problems cited in the report. As discussed in the DoD response to Finding D, the DoD agrees that capital projects must be linked to the long-range investment needs of the DBOF business area. The Financial Management Regulation now requires activities to assess the capital projects in terms of their long-range plans.

Now on pp. 11-13.

See comment 4.



See comment 7.

Concerning postinvestment analysis, the DoD concurs that projects should be analyzed to determine if they meet projected financial benefits. As discussed in the DoD response to Finding F, the new economic analysis policy requires postinvestment analyses be developed. The DoD anticipates that the renewed emphasis upon economic analysis in future budgets will ensure better assessments of program benefits.

See comment 6.

Concerning top management support, the DoD agrees that is essential for the effective implementation of the policies. The new policy governing economic analysis was developed with substantial participation by the senior financial managers of the Services and the Agencies who will be required to implement it. The DoD anticipates top management support throughout the Components for the effective implementation of the policy. The policy is expected to be published in the Fall 1994, in the DoD Financial Management Regulation.

See comment 9.

The DoD concurs that training employees in the proper techniques to justify capital projects will enhance effective implementation of the policies. The Defense Business Management University (DBMU) has been assigned oversight responsibility for the development and conduct of DBOF education and training for financial and nonfinancial training institutions. As part of its charter to modernize the curricula for members of the financial management workforce, the DBMU is incorporating the DBOF and economic analysis modules of a more general nature into courses for comptrollers, budget analysts, and management analysts. The DBMU courses include focus on the policy aspects of capital budgeting as applied in the DBOF. The professional Business Management Course (Basic), which contains that material, will be delivered on a regular basis beginning in early 1995. The follow-on course, Professional Business Management (Intermediate), is scheduled for its pilot delivery in March 1995.

See comments on p. 14.

The DoD does not agree that net present value should be the primary criterion for choosing among competing investment projects. The DoD policy stipulates that for investments equal to or greater than \$100,000, net present value will be computed as an integral part of the analysis package. Net present value will be evaluated by the DoD manager, in addition to the benefit-to-investment ratio, payback, and other nonquantifiable factors in the project selection process. That will ensure decisionmakers review a broad range of indicators in the evaluation of the total package.

- o **FINDING J: The DoD Did Not Identify Capital Asset Program Deficiencies as a Material Weakness.** The GAO reported that, under the Federal Managers' Financial Integrity Act,

the Secretary of Defense is required to review the DoD internal accounting and administrative controls to provide reasonable assurances that funds, property, and other assets are safeguarded against waste, loss, unauthorized use, or misappropriation, and that internal management controls emphasize prevention and correction of specific problems. The GAO found that the DoD has not identified the capital asset program deficiencies the GAO cited as material weaknesses requiring corrective action. (p. 24/GAO Draft Report)

Now on p. 13.

**DOD RESPONSE:** Nonconcur. The DoD maintains that the capital asset program deficiencies the GAO identified in project planning, justification, and benefit assessment are not sufficient to require inclusion under the Federal Manager's Financial Integrity Act. As explained in the DoD responses to the other GAO findings, the Department has developed policy changes that are expected to achieve the desired improvements and thereby improve internal controls.

See comments on p. 14.

\* \* \* \* \*

RECOMMENDATIONS

- o **RECOMMENDATION 1:** The GAO recommended that the Secretary of Defense require the new DBOF policy statement on capital budget investment projects include requirements to (1) link capital investment projects to the DBOF activities long-range plans and missions, (2) perform a postinvestment analysis for all projects justified on the basis of economic considerations, and (3) rely on net present value as the primary investment decision criterion for rank ordering competing capital investment projects. (pp. 24-25/GAO Draft Report)

Now on p. 13.

**DOD RESPONSE:** Partially concur. The DoD concurs that improvements in capital project planning are required and, as discussed in the DoD response to Finding D, has recently revised budget guidance policy pertaining to capital investments requiring increased attention to long-range plans. However, local managers of DBOF activities must be permitted the flexibility to alter plans to suit unforeseen exigencies. The recent improvements discussed throughout this response will balance the need for flexibility with the need to improve capital project planning.

See comment 4.

Concerning postinvestment analysis, the DoD concurs that projects should be analyzed to determine if they meet projected financial benefits. As discussed in the DoD response to Finding F, the new economic analysis policy

See comment 7.

requires such postinvestment analyses be developed. The DoD anticipates the analyses will encourage better assessments of program benefits.

As discussed in the DoD response to Finding I, however, the DoD does not agree that net present value should be the primary criterion for choosing among competing investment projects. Net present value will be evaluated by the manager as one of several important factors in the project selection process. That will ensure a comprehensive review of the total investment package.

- o **RECOMMENDATION 2:** The GAO recommended that the Secretary of Defense develop plans and schedules for training the key people responsible for implementing the new guidance. (p. 25/GAO Draft Report)

**DOD RESPONSE:** Concur. As discussed in the DoD response to Finding I, the Defense Business Management University (DBMU) is incorporating economic analysis modules into training courses. The Department makes training information concerning those courses on economic analysis widely available to the DoD workforce. The Department anticipates improvements in the management of the capital asset programs as a result of the DBOF financial management education programs.

- o **RECOMMENDATION 3:** The GAO recommended that the Secretary of Defense develop mechanisms to track implementation of the new guidance and hold managers accountable for achieving the intent of the guidance. (p. 25/GAO Draft Report)

**DOD RESPONSE:** Concur. The new DoD policy governing economic analysis was developed with substantial participation by the senior financial managers of the Military Services and the other components. The DoD will hold those managers accountable for ensuring the policy is properly implemented.

- o **RECOMMENDATION 4:** The GAO recommended that the Secretary of Defense include capital asset justification program deficiencies in the Federal Managers' Financial Integrity Act report. (p. 25/GAO Draft Report)

**DOD RESPONSE:** Nonconcur. As discussed in the DoD response to Finding J, the DoD does not agree that the capital asset program should be reported under the Federal Manager's Financial Integrity Act. The Department has identified the need for improvements to the capital asset program and has developed policy changes that are expected to improve it.

See comment on p. 14.

Now on p. 13.

See comment 9.

Now on p. 13.

See comment 10.

Now on p. 13.

See comments on p. 14.

As discussed throughout this response, implementation of the improvements will help assure that adequate internal controls will be in place.

- o **RECOMMENDATION 5:** The GAO recommended that the Secretary of Defense identify, in the annual DBOF capital budget update, (1) projects canceled or postponed since submission of the last budget and (2) projects selected as replacement for those canceled or postponed. (p. 25/GAO Draft Report)

**DOD RESPONSE:** Concur. To ensure a full accounting in the budget for significant changes in the capital program, the DoD will highlight in the FY 1996 and FY 1997 budget submission, cancellations, postponements and any related substitutions for projects greater than or equal to \$500,000. Projects less than \$500,000 will continue to be summarized.

Now on p. 13.

See comment 8.

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The following are GAO's comments on the Department of Defense's (DOD) letter dated September 16, 1994.

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## GAO Comments

1. Here and several other times throughout the comments, DOD states that the problems with the capital asset budgeting process have been resolved. As we state in the report, however, the Defense Business Operations Fund (DBOF) entities we reviewed were not following existing guidance and not much was being done at higher levels to ensure that the capital asset justification criteria were being followed. Although the new guidance adds specificity to the requirements for acquiring a capital asset, the key issue is effective implementation. That is why we included recommendations for DOD to train its key managers on how to implement the new guidance, develop performance measures to track implementation, hold managers accountable for achieving the intent of the guidance, and include capital equipment program deficiencies in its Federal Managers' Financial Integrity Act report.

2. We found no evidence that capital asset projects were being systematically assessed against this type of criteria. To the contrary, we saw a rather loose capital asset justification process that did not match the criteria to which DOD refers. DOD's DBOF Implementation Review Group found similar circumstances and recommended that the DOD Comptroller develop guidance for analyzing and documenting its capital investment decisions.

3. DOD's comment is out of context. At this point in the report, we are describing the results of our work as it relates to findings in past reports by us, defense Inspectors General, and service audit agencies. In that context, we found that DOD had not corrected previously identified problems. We recognize later in the report that DOD has developed new policy guidance that if properly implemented, will help resolve the problems we identified during our work.

4. DOD states that the necessary controls are in place to ensure selected capital projects match long-range plans of the DBOF activity. As support, it refers to new budget guidance that was issued in May 1994 and the new economic analysis policy for capital projects. During our work, however, we found a more basic problem. As we report, the activities we visited were not preparing long-range plans either because they lacked the resources to do so, or thought the requirement had been eliminated. Regardless of the reason, they were not attempting to match large capital

purchase needs to the long-term future of that activity. In addition, we found little evidence that any of the review levels in the services or the Office of the Secretary of Defense (OSD) were performing this function; local managers were being relied upon to identify the projects they thought most appropriate for the budget.

More importantly, criteria already exists that requires long-range plans and the matching of capital asset projects to those needs. While we are recommending that the new policy include requirements to match capital asset needs to long-range plans, we also recognize that the policy is not enough. As stated in the report, DOD must also address long-standing cultural issues and develop ways to ensure that the policies are effectively implemented.

5. DOD was developing its new policies for acquiring capital investments as we completed our work and did not finalize them until after it had received our report for comment. Consequently, we have adjusted our report to recognize that the new policies have been completed.

6. We are aware that the military services and other defense components were involved in developing the new policy but do not believe that is enough to ensure effective implementation. The problems we describe in this report are long-standing deficiencies that will likely require direct intervention and continued management oversight and attention to correct. Our recommendations were developed with these long-term requirements in mind.

7. When we prepared our draft report, the DBOF Policy Committee charged with developing DOD's new capital investment policy had agreed to eliminate the requirement to perform post-investment analyses for capital assets. The majority position of this committee was that limited resources should not be used to measure, track, and evaluate sunk investment costs. The DOD comptroller added the requirement to perform post-investment analyses when he approved the statement on August 8, 1994. Unless DOD develops a tracking and accountability system, as we recommend, compliance with this post-investment policy may not be any better than it was with the last one.

8. DOD agrees with our recommendation to update the DBOF capital budget by identifying projects canceled or deferred since the last budget and those that have taken their place. It proposes to do this, however, for only those projects over \$500,000 that are shown as separate line items in the

budget. This, in our view, is not enough to keep the Congress fully informed of DOD's progress in bringing stability to the capital budgeting process. As we show in this report, the DBOF activities we visited canceled or postponed 86 percent and 65 percent of their budgeted projects during fiscal years 1993 and 1994, respectively. Because only 3.3 percent (15 of 456) of these canceled or deferred projects were under \$500,000, DOD's proposal to report only on those over \$500,000 will do little to keep the Congress informed. An alternative we discussed with DOD comptroller officials was to report on a project-by-project basis for projects over \$500,000 and to report in a summary manner on those projects under \$500,000. This will give the Congress information similar to that in this report and serve as an effective measure of DOD's progress in implementing its new DBOF capital investment policy.

9. DOD agrees with our recommendation for training the key people responsible for implementing the new guidance. As a solution, however, it is planning to incorporate economic analysis modules into existing training courses that are generally made available to its workforce. Comptroller representatives estimated that it could take 2, 3, or more years to cycle its key budget analysts, comptrollers, and management analysts through these courses. Although this is certainly an important component of training that is past due, we do not believe it will address the more immediate need to ensure that managers responsible for developing the DBOF capital budget understand and implement the new policy and budget guidance.

10. DOD does not identify any mechanisms or performance measures it will develop to track implementation of the new guidance. Without this type of information, it will be difficult to know how well the new policy is being implemented or to identify the managers who are not adequately adhering to the new requirements.

# Scope and Methodology

We performed our audit work at the DOD Comptroller's Office, military services, and defense agency headquarters as well as the three command and six field activity locations listed in table III.1.

**Table III.1: DOD Organizations Visited**

<b>Service</b>	<b>Business area</b>	<b>Command and field activity</b>
Army	Depot maintenance	Depot System Command — Letterkenny Army Depot — Tobyhanna Army Depot
Navy	Research and development	Naval Air Systems Command — Naval Air Warfare Center, Warminster — Naval Air Warfare Center, Lakehurst
Air Force	Depot maintenance	Air Force Materiel Command — San Antonio Air Logistics Center
Air Force	Supply management	Air Force Materiel Command — San Antonio Air Logistics Center

We selected these locations to cover a cross-section of DBOF business areas and expected volume of capital investment projects. We interviewed responsible agency personnel and obtained pertinent documentation as it related to the DBOF process for capital project budget preparation and review.

To determine the extent to which DOD carries out the DBOF Capital Budget it sends to the Congress, we (1) identified the universe of capital projects included in the fiscal years 1993 and 1994 capital budget for the activities we visited and (2) compared them to the projects actually undertaken during those 2 fiscal years.

To assess the effectiveness of the budget preparation and review process and determine if capital projects are adequately justified and economically supported, we (1) reviewed the DOD policies, procedures, and guidance used to prepare and review capital budget projects and (2) identified internal controls in place to ensure that capital projects are selected in accordance with the procedures and guidance.

We judgmentally sampled 56 of 140 capital projects included in the various fiscal year 1994 budget submissions for the activities we visited. In selecting projects, we placed more emphasis on capital projects over \$500,000. For all 56 projects, we (1) determined whether there was



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**Appendix III**  
**Scope and Methodology**

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adequate documentation justifying the project, including, where appropriate, a properly prepared economic analysis and (2) examined, when applicable, the reasons for project cancellations and postponements.

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