

DoD Financial Management

More Reliable Information for Decision Makers

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A Word From the Author

The General Accounting Office (GAO) has recently outlined several problems with current DoD accounting and reporting procedures. I believe that these concerns can be resolved, in the depots, by the use of Activity Based Costing (ABC) and Enterprise Resource Planning (ERP). Furthermore, the implementation of an ERP process in the depots would allow for a significant reengineering of current business practices. This new process would integrate the logistics, manufacturing, financial, and human resource/payroll management functions within an organization, to provide a single, less fragmented reporting/information system. Consequently, through the use of additional software that uses standard bar coding to track and manage fixed assets and the use of Warehouse Management System software, asset management and reporting improvements can be achieved at the depots.

As we enter the 21st century, one of the problems from the past still remains with us in the financial community — are we realistically costing our products and accurately tracking our assets? This was highlighted recently by GAO in their January 1999 report, “Major Management Challenges and Program Risks,” in which they discussed DoD’s “inability to fully institute sound financial man-

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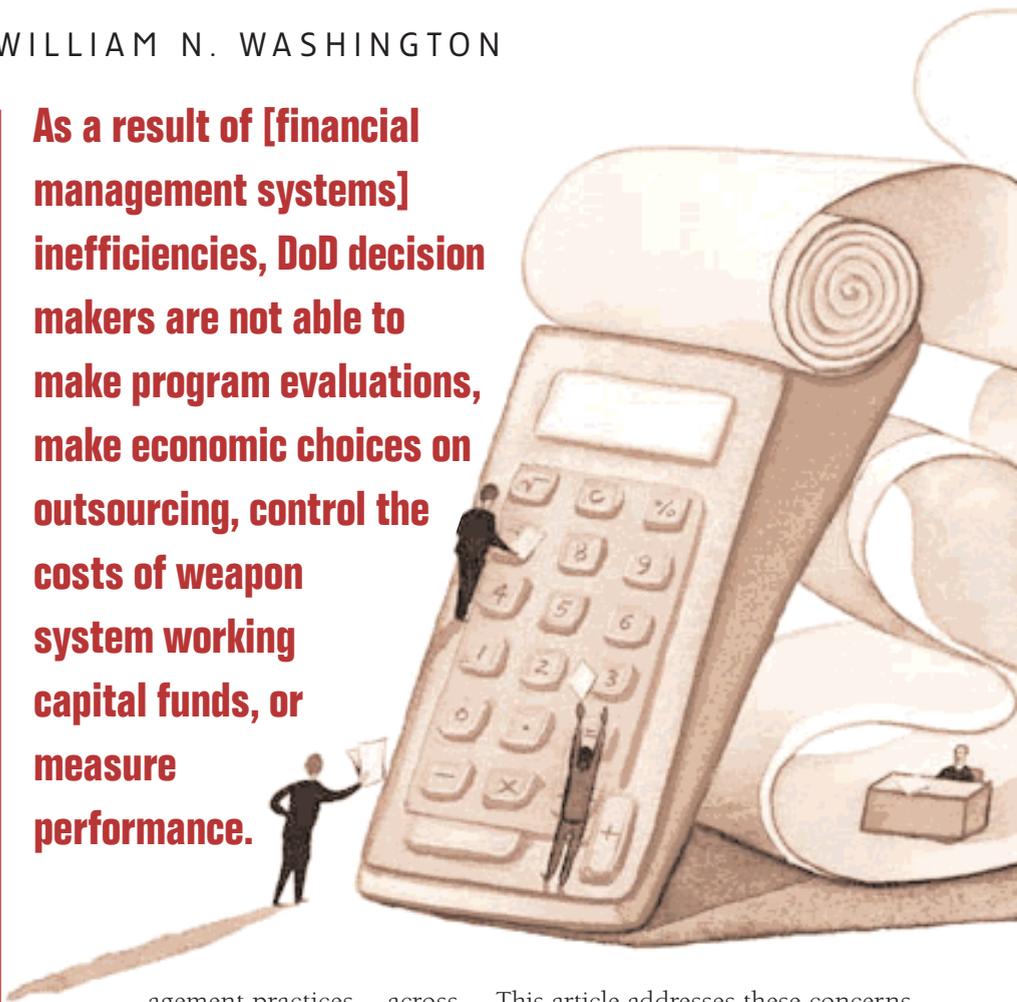
agement practices ... across the full spectrum of recordkeeping and control systems.” According to GAO’s report, DoD has not properly accounted for and reported billions of dollars of property, equipment, inventory, and supplies. These problems, they pointed out, impair DoD’s ability to:

- Know the location and condition of all its assets.
- Safeguard those assets from physical deterioration and loss.
- Prevent the unneeded purchase of assets already on hand.
- Determine the full costs of the programs that use those assets.

This article addresses these concerns, within the depot’s financial environment.

Financial Management

Some of the problems outlined by GAO relate to the reliability of DoD’s cost information. They have stated that “DoD’s financial management systems are not designed to capture the full cost of its activities and programs.” As a result of these inefficiencies, DoD decision makers are not able to make program evaluations, make economic choices on outsourcing, control the costs of weapon system working capital funds, or measure performance. These problems have a direct relationship to the reporting of



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billions of dollars of inventory and infrastructure (plant and equipment) as well as the accurate reporting of net costs of operations.

For instance, the on-hand quantities of spare parts have generally not been in agree-

ment with official records. (In 1998 only two depots had inventory accuracy rates of 90 percent.) “Night vision goggles” were one example of this. With a unit price of \$1,300, 1,018 pair were found to be missing from the inventory at one depot. This shortage alone represented \$1.3 million worth of potential loss and/or accounting misadjustments to the working capital fund.

Another example was pointed out by the Inspector General of the Department of Defense (Audit Report, 1997), where they looked at only chemical suits in the depot at Columbus, Ohio. The examination found that 696,380 suits were not included in the depot records, and that the value of the suits was also not recorded correctly. As a result, the in-

ventory records were misstated by \$122 million – out of a total inventory of \$756.1 million.

Further, the sampling process depots used to check their inventory accuracy considered each type of item equally, regardless of price, so that an error on a \$1 item counted the same as an error on a \$50,000 item.

Lastly, contrary to federal accounting standards, the inventories were not based upon historical costs, but rather all the items were valued at standard cost or latest acquisition cost, which does not allow for reconciling items against their initial costs. These inaccuracies in accounting records can also lead to potential problems in ordering unnecessary spares.

One instance of that occurred in 1997, when \$11.3 million in hydraulic pump valves and circuit card assemblies were ordered when there was already an excess supply of these items in the depots. Estimates reveal that excess inventories in 1999 (based upon DoD requirements) represented \$39.4 billion, which might have been used for other program requirements.

Activity Based Costing and Enterprise Resource Planning

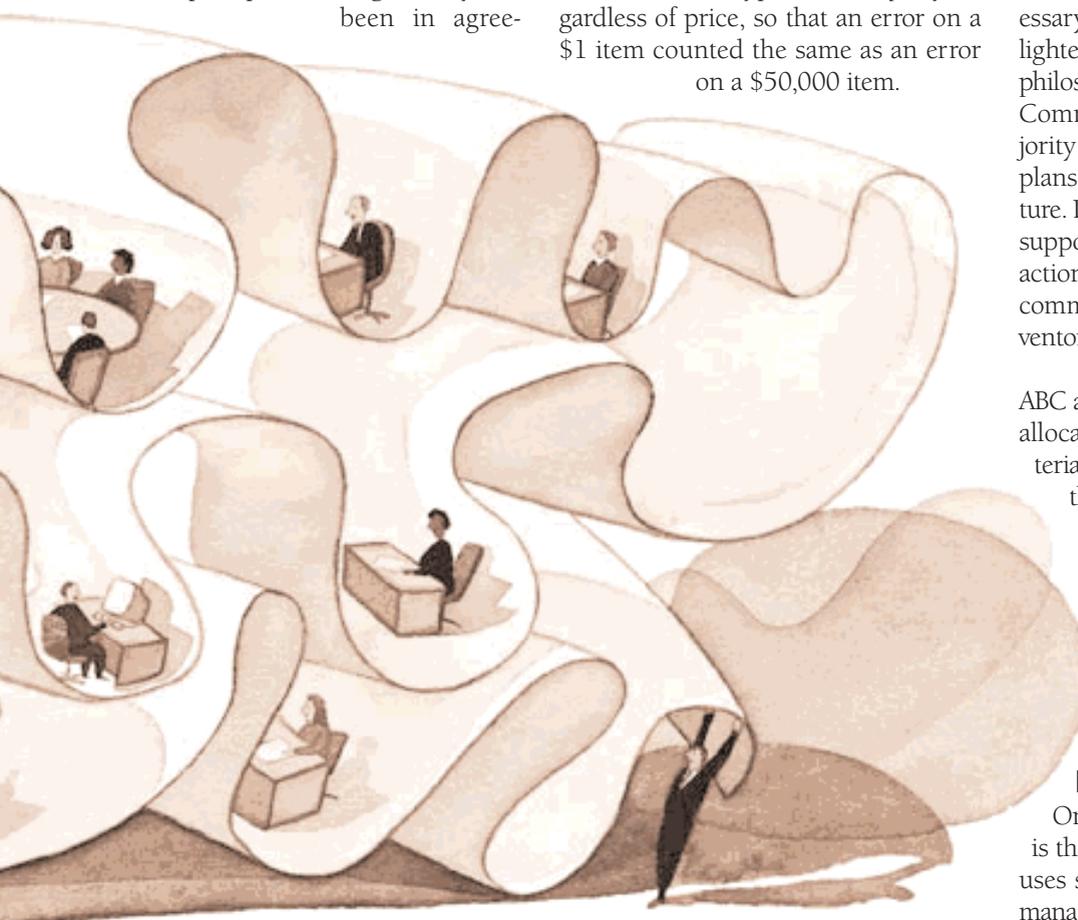
I believe that implementing Activity Based Costing (ABC) in the depots would provide DoD decision makers, from depot level to Army headquarters, with the information and control necessary to address these concerns highlighted by GAO. This would equal the philosophy of following industry’s “Best Commercial Practices,” since the majority of private industry either has or plans to implement ABC in the near future. Implementation of ABC would also support and complement congressional actions to encourage DoD to adopt best commercial practices in improving inventory management.

ABC accounting refers to a process that allocates the cost of overhead and materials directly to the products that use them, rather than the traditional approach of allocating overhead as a rough percentage measure of some proportion. Thus, costs are traced from resources to activities and processes, and then to specific products, services, and customers.

Development of Software

One of the first steps in the process is the development of software, which uses standard bar coding to track and manage fixed assets. The software would also track the location, organization, and financial information on each asset using desktop computers and bar coding equipment. This process would dramatically improve the accuracy of inventory records, require less time to perform inventory record accounting, and provide the type of financial information necessary to address the concerns outlined by GAO. It would also provide a transaction log record to track additions and deletions so that at any point in time, depot managers would know their on-hand inventory.

In addition to improvements in reporting, a better handle on assets has several possible cost benefits such as savings related to ordering unneeded parts and supplies, and general asset management savings that could range from 5 percent



to 35 percent. Lastly, it would also provide input to the ABC accounting system that could be used to gain a better picture of the true costs of repairs.

Another relatively recent software development that could aid in cost tracking within the depot system is termed Enterprise Resource Planning (ERP). These programs integrate the logistics, manufacturing, financial, and human resource management functions within an organization, to provide a single, less fragmented reporting information system. The use of ERPs in private industry, like ABC, is also increasing, with an estimate that 70 percent of Fortune 1000 firms have, or will soon have, ERP systems.

The principal reason for this sudden and widespread use of a new business approach is due to the potential benefits that companies perceive in an integrated reporting system, like quicker reaction times to business decisions, more flexible product configurations, reduced inventory, and tightened supply chain links. Consequently, it appears that all employees of a company would have ac-

cess to the same information almost instantaneously, allowing for significant reengineering of business practices.

Considerations for Implementing an ERP System

The complexity of an ERP system, however, requires considerable forethought regarding its implementation, which can possibly take years to accomplish. What questions must you answer before implementing the system?

Who would implement the project? In several firms, this has been left to the Information Technology (IT) division. This doesn't necessarily seem to be the best choice; rather, management should form an integrated team from all the divisions involved, since it will require their coordination and input for the program to be successful.

Should the ERP software be implemented "as is," modified to meet the specific needs of the organization, or should different ERP packages for different divisions be selected and then integrated (since different vendors offer different capabilities within each functional area)? The selection of one of the three approaches just mentioned can considerably influence the subsequent performance of the package, and its time and personnel requirements. For instance, the average ERP implementation time runs about 14 months, and can take as many as 150 consultants for a large organization. However, modifying the software may offer the best fit for the function, but could drive up the cost of the project by 30 percent.

The least expensive (up-front cost) approach would be to implement packages piecemeal, with the thought that, at some point in the future, there would be an integrated system across all functions. However, the total costs for this type of approach would probably be just as high as the software modification approach.

Would one want to use a Warehouse Management System (WMS) in conjunction with the ERP system? Several companies tried it to bring ultimate benefit to a repair/manufacturing facility. However, the integration of these two types of soft-

ware packages has proven to be a difficult process, since many of these packages do not adhere to a particular standard, and integrating their communications may not be easy.

Is there sufficient room on the main server? The software architecture requires considerable storage room, and the network should probably be expanded to accommodate the extra use that it will receive.

What needs to be done to use the current data information? The organization should standardize the data before implementing an ERP system; for, if one item is called by different names at different locations, or different items are called by the same name, then the full benefits of an ERP will not be achieved.

Do business practices need to be changed? While current business practices do not necessarily have to be changed to implement an ERP, it would make sense to do so in order to fully benefit from the integrated approach.

Recently, the process of acquiring new software, especially financial off-the-shelf software, was made easier with revisions to Office of Management and Budget Circular A-127, allowing agencies to purchase software if it meets federal requirements. The process will now be to notify the Joint Financial Management Improvement Program (JFMIP), which will then post a message on their Web site that will allow interested vendors to begin market research in anticipation of submitting a bid or proposal. The process was up-and-running Oct. 1, 1999, and showed which software products have been tested and certified under the new standards.

Final Thoughts

GAO has recently outlined several problems in the depots with current DoD accounting and reporting procedures. The use of ABC and the implementation of an ERP process in the depots would allow for a significant reengineering of current business practices. The addition of the new accounting and reporting software applications could go a long

"SHAPING THE CIVILIAN ACQUISITION WORKFORCE OF THE FUTURE"

Dr. Jacques S. Gansler, Under Secretary of Defense (Acquisition, Technology and Logistics) and Dr. Bernard Rostker, Under Secretary of Defense (Personnel and Readiness) signed the Acquisition Career Management Task Force's final report, "Shaping the Civilian Acquisition Workforce of the Future," Oct. 11. View the entire report on the Defense Acquisition Reform Web site at www.acq.osd.mil/ar/#2005.

way toward the improvement and accuracy of financial management reports for DoD depot activities.

Editor's Note: The author welcomes questions or comments on this article. Contact him at washinwn@mail1.monmouth.army.mil.

B I B L I O G R A P H Y

Audit Report, Inventory Accuracy at the Defense Depot, Columbus, Ohio, Office of the Inspector General, Department of Defense, #97-102, Feb. 28, 1997.

Ferris, Nancy, "Using Technology to Control Technology," *Government Executive*, September 1999, pp. 75-77.

GAO Report, Department of Defense: Status of Financial Management Weaknesses and Actions Needed to Correct Continuing Challenges, T-AIMD/NSIAD-99-171, May 1999.

GAO Report, DoD Financial Management: More Reliable Information Key to Assuring Accountability and Managing Defense Operations More Efficiently, T-AIMD/NSIAD99145, April 1999.

GAO Report, Defense Inventory: Improved Management Framework Needed to Guide Army Best Practice Initiatives, GAO/NSIAD-99-217, September 1999.

GAO Report, Financial Management: Better Controls Essential to Improve the Reliability of DoD's Depot Inventory Records, AIMD-99-132, June 1999.

GAO Report, Major Management Challenges and Program Risks, OCG-99-4, January 1999.

Shim, Eunsup and Stagliano, A. J., "A Survey of U.S. Manufacturers on Implementation of ABC," *Journal of Cost Management*, Mar/Apr 97, Vol. 11, Issue 2, pp. 39-41.

Trunk, Christopher, "Building Bridges Between WMS & ERP," *Transportation & Distribution*, February 1999, Vol. 40, Issue 2.

Cisco Systems Chairman of the Board Receives David Packard Leadership Award

**Air Force Secretary F. Whitten Peters
Joins Business Executives for
National Security in Honoring
John P. Morgridge**

Secretary of the Air Force F. Whitten Peters, joined by John T. Chambers and L. John Doerr, members of the *Business Executives for National Security*, presented John P. Morgridge with The David Packard Leadership Award Oct. 12. The black tie gala was held at the Hiller Aviation Museum, San Carlos, Calif.

Morgridge, Chairman of the Board at Cisco Systems, Inc., joined the company in 1988 as President and CEO and grew it from \$5 million in sales to over \$1 billion, from 34 employees to over 2,260. Fifteen years ago, Cisco Systems did not exist. Today, it is the fastest growing company in the history of the computer industry and the third highest valued company in the world.

Morgridge's selection for the award recognized not only his entrepreneurial spirit, but also his business achievements, generosity to countless nonprofit institutions, and his service to community and country.

About The David Packard Leadership Award

David Packard's garage is often called the birthplace of Silicon Valley. Certainly, the work he did with partner William Hewlett helped create a technological and computer revolution that affects all our lives.

To his roles of entrepreneur and management innovator, David Packard added philanthropist and public servant. David Packard remains the embodiment of business genius employed in service to the nation. As Deputy Secretary of Defense and as chair of two Presidential commissions on defense reform, he headed major efforts to change the way the Department of Defense acquires weapons and manages resources.

The David Packard Leadership Award is presented to a business leader whose contributions best reflect the vision, generosity, and spirit of David Packard.