

# SEEKING DEFENSE EFFICIENCY

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The drive for greater efficiency in the Department of Defense has so far been characterized by centrally directed efforts such as A-76 competitive sourcing of commercial activities. The next stage of improving defense management requires decentralizing the pursuit of efficiency on a framework of strategic planning, cost accounting, and performance measurement. A survey of some pilot efforts to establish and use these business techniques in DoD organizations finds promising beginnings in all three areas.

**D**efense leaders are trying to make their vast domain more efficient. The most visible measures have been business initiatives, such as the “competitive sourcing” campaign, centrally driven from the Office of the Secretary of Defense. The thesis of this article is that the next stage of improving defense management requires decentralizing the pursuit of efficiency on a framework of strategic planning, cost accounting, and performance measurement. I have surveyed some pilot efforts to establish and use these business techniques in Department of Defense (DoD) organizations and found promising beginnings in all three areas.

## **DEFENSE OUTSOURCING AND THE REVOLUTION IN BUSINESS AFFAIRS**

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The Office of the Secretary of Defense (OSD) seeks a “revolution in defense

business affairs” to create faster, more agile, and more efficient support operations to complement dominant combat forces and to free resources for continuing modernization (Cohen, 1997). Defense reform initiatives fall into four general areas: reengineering to adopt modern business practices; consolidating to remove redundancy; competing so that market mechanisms can improve quality, cost, and responsiveness; and eliminating excess support structures (DoD, 2000).

A Defense Science Board (DSB) Task Force on Outsourcing and Privatization report published in 1996 estimated that in 1994, 640,000 military and civilian defense employees were performing functions “generally available in the private sector” (Office of the Secretary of Defense for Acquisition and Technology, 1996). It went on to calculate that if half these positions were converted to contract at an average 30 percent cost reduction,

then annual savings could range from \$7 billion to \$12 billion by 2002. Subsequently, DoD committed itself to evaluating the entire defense military and civilian workforce to identify functions appropriate for outsourcing (Cohen, 1997).

The current procedures for determining whether a federal function should be converted to contract are described in Office of Management and Budget (OMB) Circular A-76, "Commercial Activities," first published in 1966 and most recently revised in 1996.

In the summer of 1997, the Services and defense agencies under OSD guidance set target numbers of civilian and military spaces to be competed under A-76 rules. At the same time, they built the budget program for the years 1998–2003 anticipating personnel space and cost reductions consistent with the record of earlier commercial activities efforts. OSD assured the Services that their overall budgets would not be reduced as a result of outsourcing savings (Kaminski, 1997). Through fiscal year 2000, DoD has reviewed or is currently reviewing for potential outsourcing 181,000 positions, twice as many as were reviewed in the previous 17 years. The department expects a total of 245,000 to be reviewed by 2005 (Cohen, 2000).

### **INITIAL REACTIONS TO OUTSOURCING**

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Although the assumed savings have already been factored into the defense program, actual savings are harder to pin down. Generally, private sector offerors have won 60 percent of the competitions (Ferris, 1999). Estimates of government costs, both in the historic baseline before an A-76 competition and projected for an

in-house most efficient organization (MEO), are subject to the inaccuracies of government accounting systems. Audits sampling the pre-1996 competitions identified average cost savings of 20–30 percent, whether or not the activity was contracted out or retained in-house. Generally these were snapshot results of the bid comparisons.

Afterward, both contracts and government MEOs have been modified to adjust to changing missions and occasionally to restore tasks mistakenly omitted from the performance work statement (Defense Logistics Agency, undated). A recent General Accounting Office (GAO) report (1999) questions whether assumed savings figures may be overly optimistic in not sufficiently accounting for the costs of administering competitions and separating displaced government workers. It further reports concerns of service officials that they may have run out of spaces to compete short of meeting their agreed quotas.

Although the outsourcing effort will continue and it is early to make an assessment, certain features emerge. The defense outsourcing effort has been imposed from the top on an aggressive timetable. Although the DSB recommended making use of waivers and large-scale conversions, the Services have relied more on numerous small-scale A-76 competitions. Outsourcing appears to have generated some savings and allowed budget reallocations, although the department needed a top-line increase in order to hit its modernization target of \$60 billion in the 2001 budget submission (Cohen, 2000). Has defense efficiency been increased, or have OSD and the Services simply found a new rationale for cutting

money and personnel spaces from operations and maintenance (O&M) budget lines? Without better systems to account for costs and to measure performance, we have a hard time answering.

### **EFFICIENCY AS DEFENSE BUSINESS OBJECTIVE**

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Government efficiency, like that in the commercial sector, can be defined as the ratio of outputs to inputs; however, the general lack of markets to assign value to public sector outputs makes the process more difficult. Public sector pursuit of efficiency requires:

- strategic planning to infer required outputs from politically determined outcomes and to make tradeoffs between the desired outputs to determine target levels of service;
- accounting that allows quantifying the input cost that contributes to an output;
- quantitative measures of output goals and performance; and
- motivation and resources to establish the management systems and to make the choices that maximize efficiency.

On examination, the modern business practices directed by the Defense Reform Initiatives (DoD, 2000), however worthy, turn out to be specific actions for Services and defense agencies rather than establishment of broader management systems or goals. Although they receive less publicity, more general improvements in business management, changes in the way

defense organizations set their goals, resource functions, and measure their performance, are also occurring in DoD. As an alternative to centralized direction of specific actions such as the competitive sourcing experience of the past four years, I looked around DoD for evidence of three elements of decentralized government efficiency-seeking: strategic planning, cost accounting, and performance measurement. I also explored their application toward sourcing decisions.

### **STRATEGIC PLANNING**

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Strategic planning takes a rational look at an organization's external environment and its mission and vision, values and beliefs, customers and stakeholders, products and services, and long-term goals and objectives. Strategic planning represents an effort to align activities through the different echelons with priorities determined at the top, relating operational and support functions in a consistent way to missions. It represents a move in defense planning toward a capabilities-based organization and away from a purely threat-based one. It provides a framework for cost and performance measurement systems. And finally it provides an opportunity to zero-base the organization by starting from basics to justify each activity and letting form follow function.

The most sweeping management effort in DoD today is the Air Force-wide program

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called “strategic planning” (Department of the Air Force, 2000). At the Service level, goals are based on the Service statutory functions of organizing, training, and equipping the force. The three goals—quality people, operational performance, and modernization—align roughly with the two top-end DoD Government Performance and Results Act (GPRA) goals: prepare, and shape and respond. Mission essential tasks (METs) line up under the goals as follows (Department of the Air Force, 1999):

- **Goal 1.** Quality people:

*MET 1.A.* Recruit and retain the force to execute Air Force core competencies.

*MET 1.B.* Educate and train a quality workforce.

*MET 1.C.* Enhance the quality of life of our total force and their families.

*MET 1.D.* Maintain a fit and healthy workforce.

- **Goal 2.** Operational performance:

*MET 2.A.* Improve mission effectiveness while minimizing risk.

*MET 2.B.* Maximize the efficiency of operating and maintaining U.S. Air Force resources.

- **Goal 3.** Modernization:

*MET 3.A.* Maintain and enhance our competitive edge by identifying, developing, and applying innovative concepts, technologies, and processes.

Each Air Force Major Command (MajCom) is now charged to develop its own METs, addressing not only the service-wide ones listed above but also appropriate METs derived from the six Air Force core competencies. These are air and space superiority, global attack, rapid global mobility, precision engagement, information superiority, and agile combat support. Wing-level METs are to address appropriate core competencies but not the three Service-level goals. METs at all levels have performance measures and associated standards of performance. Supporting tasks are activities that contribute to METs without being essential in themselves. They too have performance measures and standards. The overall process brings under one structure many existing systems to measure performance in terms of equipment availability, unit capabilities, and support system effectiveness.

The Air Force strategic plan envisions a cycle of continuous improvement through periodic assessment, improvement planning, and execution. Its overall thrust is effectiveness in meeting standards rather than efficiency in producing outputs. Although probably not intended as a system for efficiency improvement, it could be part of one. It will help ensure that outputs relate to desired outcomes, and it should help identify for elimination functions that add no value.

Although the Air Force strategic plan documentation does not say so, the identification of core competencies and essential tasks implies that support functions may be more appropriate for outsourcing. By aligning functions and performance measurement throughout DoD, it creates a structure that could potentially be used for assessing at various levels alternative

means of mission performance. If organizations could associate costs with the level and means of task performance, then the system would support pursuing efficiency.

The Navy is putting in place a system called “strategic sourcing” (Department of the Navy, 2000), which more directly addresses the efficiency challenge. The Navy faces the problem common to all the services, that A-76 competitions alone are not generating the savings that were already projected in the summer of 1997 budget decisions. By committing to a broader search for efficiency opportunities, the Navy has received from OSD permission to count against competitive sourcing targets savings achieved through reengineering even of activities that are formally exempt from A-76 competitions.

In a sense strategic sourcing picks up where processes like the Air Force strategic plan leave off. It is intended to be applied to an entire function or organization, including all activities whether in-house or contracted, inherently governmental, military essential, or restricted. The first step is to validate the requirement, which is best done after a rigorous strategic planning approach like the Air Force strategic plan has derived essential tasks from top-level missions. Unneeded activities or parts of activities must be eliminated.

The strategic sourcing process then examines whether any commercial activities (as defined by OMB A-76) can be severed from exempt activities. Since there is room for judgment in determining exemptions, especially for military considerations, this analysis needs to be performed very broadly. For example, exempting activities because spaces are needed for rotating service members from sea or foreign duty can only be done after

examining billets across a major command or perhaps across the entire Service. Determining militarily essential functions implies a Service-wide identification of core activities, not a local decision. Strategic sourcing explicitly calls for considering an A-76 cost comparison waiver, privatization, and other alternatives that would shift the functions to the private sector.

The key feature of the proposal is that activities or parts of activities exempted from commercial activities consideration are also required to reengineer themselves to an MEO as if they were subject to A-76 competition.

The Navy uses the term “functionality assessment” to refer to this business reengineering process. It envisions dramatically rebuilding an existing organization over

the course of 6 to 12 months through a systematic process of analyzing and restructuring. After the reengineering is complete, ongoing total quality management is expected to maintain efficiency and ensure that performance goals are met. The functionality assessment procedures also highlight activity-based costing as an element of analysis.

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## **COST ACCOUNTING**

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Activity-based costing (ABC) refers to determining the total cost of producing a specific product or service as opposed to

tracking the cost of unrelated inputs that support many outputs. The biggest challenge in establishing ABC is allocating overhead costs, but organizations must also establish standardized lists of outputs and systems for assigning all costs to them. A related term, activity-based management (ABM), refers to using ABC together with performance measurement and other techniques continuously to pursue greater efficiency.

Cost accounting reform has long been recognized as an essential element of defense efficiency improvement. Congress has provided encouraging legislation, ranging from the Chief Financial Officers (CFO) Act of 1990 to the Government Performance Results Act and the Federal Financial Management Improvement Act.

As part of its 1997 National Performance Review submission, DoD set itself the goal of establishing an implementation plan for life-cycle ABC for weapon systems by 2000. Later that year the goal

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was extended to include all activities in the department, not just weapons systems. In July 1999 the Under Secretary of Defense for Acquisition,

Technology and Logistics, Jacques Gansler signed a memo directing the Services and defense agencies aggressively to pursue ABC/ABM “in maintenance depots and everywhere else it could be expected to provide improved cost management.”

In response to the OSD tasking, the Army has identified 11 support functions

for implementing cost management, including depot maintenance, supply management, ordnance, information support, civilian human resources, institutional training, base operations and support, research and development laboratories, test and evaluation contracting, and acquisition (Army Managerial Costing Steering Committee, 1999). The Army plan recognizes the far-reaching effect of ABC and necessary links to Planning, Programming, and Budgeting System (PPBS) and other current management systems. The plan features centrally funded purchases of accounting software and training to ease transition and standardize procedures, but the effort identifies decentralizing opportunities for creative improvement as a major benefit.

The Army has for several years endorsed activity-based costing as a local manager’s tool. A pilot ABC/ABM program began in 1996 at five installations of XVIII Airborne Corps and in 1997 expanded to the rest of Army Forces Command (U.S. Army Forces Command, 1999). The program seeks to establish a continuous cycle for improvement encompassing process evaluation and generating, selecting, and implementing alternative solutions. General objectives include improving timeliness, cost, and quality of services.

The five installations of XVIII Airborne Corps have succeeded in implementing ABC across eight base support functions including logistics, personnel management, community activities, training management, public works, information management, and resource management. The work involved adapting computer accounting models to each installation, training specialists and managers and applying cost information to management decisions.

The Directorate of Logistics at Fort Riley, KS, claimed a 34 percent reduction in manpower and a \$6 million reduction in operating costs in its first year of ABC/ABM management (LaGrange, 1999).

- the Defense Commissary Agency;
- Army Corps of Engineers Civil Works operations and maintenance; and
- the Defense Logistics Agency (DLA).

## PERFORMANCE MEASUREMENT

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The Government Performance Results Act (GPRA) of 1993 provides the current framework for measuring output performance in federal agencies. It seeks to move the focus of government away from inputs and structure toward results, urging agencies to (GAO, 1996):

- define missions and desired outcomes;
- align their activities, core processes, and resources to support these outcomes;
- establish complete, accurate, and consistent measures of program performance; and
- use performance data to identify shortfalls, set improvement goals, and improve organizational processes.

After the act was first passed in 1993, DoD designated seven GPRA performance measurement pilots (Maroni, 1998):

- the Army Audit Agency;
- the Army Research Laboratory;
- the Air Combat Command (ACC);
- a carrier battle group in the Atlantic Fleet;

The formal DoD pilot program has been discontinued because OSD views GPRA only as a department-level requirement. Nevertheless, I surveyed the current status of the seven pilots to get an idea of the potential of performance measurement in DoD. Selected results follow.

### ARMY RESEARCH LABORATORY

The Army Research Laboratory (ARL) was activated in early 1993 through a consolidation of predecessor organizations, so the acting director at the time seized the opportunity to be a GPRA pilot in order to promote new management practices (Brown, 1998). Measuring the performance and efficiency of research and development (R&D) activities is challenging in the private sector as well as in government because research outcomes are not usually known in advance, there is a high percentage of negative findings, and there is a long lag between inputs and outputs.

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Performance measurement at ARL falls into three areas: relevance, productivity, and quality. The laboratory uses several measurement techniques. ARL contracts with the National Academies of Science and Engineering for an independent technical assessment board and advisory

panels of outside research professionals to review one third of the ARL technical program each year for quality. ARL uses about 50 quantifiable measures of productivity, with the director tracking some 14 closely and using them to set performance goals for his senior managers.

Three customer response tools provide the most useful measures of relevance and productivity. ARL polls all its reimbursing customers for assessments of specific research products. The laboratory director requires division directors to respond to the infrequent unfavorable responses within a week of receipt. ARL also consults a board of directors comprising the technical directors of the Army Material Command (AMC) organizations, which are ARL's principal customers. Finally, there is a Stakeholders' Advisory Board of three-star-rank Army leaders under the

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chairmanship of the Commanding General of AMC. They meet annually to ensure that ARL is coupled to the Army vision, responsive to senior

leadership, and provide the technologies that the future Army will need.

The ARL performance evaluation construct has been useful to ensure visibility of the research program and response to Army needs. It is integral to accountability of the laboratory as a whole and the senior leadership as individuals. The quantified metrics portion is considered the least useful of the triad, but it has contributed to boosting specific items such as

publication of referred papers and number of staff holding doctorates. While Circular A-76 specifically exempts R&D from outsourcing competition, the Stakeholders' Advisory Board in 1998 approved contracting out all ARL support functions, reserving as specific core competencies the management and conduct of R&D itself.

### ATLANTIC FLEET BATTLE GROUP

Three Army support agencies participated in the performance measurement pilot program; participants from the other services were combat commands. The Navy element was the Atlantic Fleet's *George Washington* Carrier Battle Group (GWBG) (Pearsall & Hill, 1999). The GWBG pilot established several objectives:

- Determine feasibility of measuring battle group mission performance.
- Provide lessons learned and recommendations.
- Develop a daily mission readiness assessment system to integrate "stovepipes" of readiness data for the battle group commander.

The model measured seven prescribed critical tasks for the carrier battle group—air dominance, maritime superiority, power projection, surveillance and intelligence, command and control, sustainment, and peacetime presence. For each critical task it identified prescribed subtasks, each in turn supported by no more than eight performance indicators. For example the critical task of "seize and maintain control of designated airspace" included three subtasks of which one was

“detect, monitor, and maintain readiness to intercept aerial contacts.” Subject matter experts reached consensus on the seven performance measures of task performance (for example, “percent ship electronic intercept receivers fully operative”). The entire system included a total of 280 performance indicators, some of which appear in more than one critical task. Given staff workload concerns, no new data collection requirements were imposed on the battle group staff. Performance measures used “stove-piped” data already being collected as part of existing programs but not integrated into a mission performance perspective. The project created a Microsoft Office-based system for assembling and presenting the data.

On review, Atlantic Fleet leadership decided:

- to continue testing the performance measurement model on three subsequent Atlantic Fleet carrier battle groups;
- to develop a comparable prototype model for an Amphibious Readiness Group (ARG) (USN/USMC elements); and
- to test the feasibility of linking mission performance to activities-based cost accounting as groundwork for potentially developing a comprehensive ABC/ABM system.

The cost linkage has been successfully demonstrated in a controlled pilot project using actual Battle Group Air Wing performance and cost data, demonstrating at least the feasibility of full implementation. A follow-on dynamic test is scheduled for

a fiscal year 2000 battle group deployment. Full implementation of the ABC/ABM concept will depend on the results of the next phase. Project personnel believe that the prototype offers the possibility to address currently unanswerable questions, such as:

- Where should readiness dollars be spent for the greatest increase in effectiveness?
- Where are readiness dollar tradeoffs?
- What is the marginal readiness rate of return for an individual system?
- Which systems should be donors and which ones recipients of resource shifts?

#### DEFENSE LOGISTICS AGENCY

The Defense Logistics Agency (DLA) measures performance in a variety of documents including its performance contract with OSD, a strategic plan, a performance plan and business area long-range plans. The fiscal year 1997 DLA performance report identifies 35

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performance targets, for all but two of which measurable objectives were established. The list included targets for customer satisfaction and for the timeliness, effectiveness, and cost of various agency operations. Subordinate elements of DLA have their own performance plans, whose performance measures support the

agency-level ones. Furthermore, managers include corporate measures in their individual performance evaluations. DLA has refined the performance measurement process, working, for example, to develop customer-focused metrics that relate to customer unit goals such as combat readiness.

The performance contract responds to a January 1998 Defense Reform Initiative

**“DLA aims to be efficient and to achieve performance levels that meet customer needs.”**

Directive (Hamre) for defense agencies to submit to the Deputy Secretary of Defense contracts covering the period of

the Future Years Defense Plan, fiscal years 2000–2005. These contracts include:

- quality of products and services to be provided;
- measures of customer satisfaction;
- planned cost of providing goods and services;
- results of benchmarking studies assessing reasonableness of planned cost and quality;
- planned improvements in productivity;
- planned steps to correct deficiencies in performance metrics;
- discrete actions that agencies commit to accomplish; and

- goals for multiyear actions with milestones and measures of cost and other efficiencies.

The measures and targets in the current DLA contract address customer satisfaction, efficiency, and timeliness, similarly to the performance plan.

DLA aims to be efficient and to achieve performance levels that meet customer needs. The performance contract and other plans highlight efficiency as a goal. Furthermore, DLA itself operates in a competitive environment where Service installation managers and weapon system program managers can choose whether to buy their logistical support from DLA, from government providers within their Services, or directly from contractors. The agency has reduced logistics response time from 36 days to 18 days from 1998 to 2000, and it aims to achieve 9 days by 2005 (Defense Logistics Support Command, 2000). Similarly, it is on its way to reducing operating costs by 25 percent and workforce by 30 percent over the same period. In order to achieve these improvements DLA has reengineered many business processes, often outsourcing activities. It has made use of A-76 competitions at distribution and supply depots. Like the Services, DLA committed to personnel reductions in the 1998–2003 program.

Cost and performance measures have made some contribution to DLA sourcing decisions. Performance measures are in place throughout the organization. For example, timeliness data has given an idea of how much improvement has been gained by outsourcing repair parts supply. DLA has been working on cost accounting since 1993, although it does not yet have a full ABC system in place. DLA

performance metrics and cost accounting provide a context for sourcing decisions, but they do not fully inform them.

### **A TRUE REVOLUTION IN DEFENSE BUSINESS AFFAIRS**

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OSD has initiated a “revolution in defense business affairs” by centrally directing some fairly detailed business initiatives for the entire department. The competitive sourcing campaign has succeeded in that it was based on the correct observation that contractors could more cheaply perform many functions previously performed in-house and because OSD controls the budget inputs. However, most effectively integrating contractors into DoD supply chains and realizing benefits of outsourcing beyond cost savings will require better strategic planning and performance measurement, not just more A-76 competitions.

The opportunity exists to make efficiency a management objective at all levels of DoD. Strategic planning can explicitly identify the outputs needed to achieve defense readiness and modernization outcomes, particularly when post-Cold War strategy shapes a force more for needed capabilities than to counter a specific threat. The generally successful effort to measure performance across organizations as diverse as the seven DoD GPRA performance measurement pilots shows that the outputs can be quantified. The cost accounting initiative in Army Forces Command installations has succeeded in identifying cost drivers and highlighting opportunities for savings. Navy strategic sourcing and the ongoing business reengineering campaign in DLA show ways to infuse an entire Service or agency with

a drive for efficiency. Cost accounting and performance measurement could influence the programming-budgeting process by helping to identify more efficient and effective ways to conduct defense operations.

There is a limit to what efficiency improvements can accomplish. Even the roughly \$10 billion in savings from defense competitive sourcing optimistically projected by the DSB study is not enough

alone to close the DoD modernization gap as Cold War legacy systems need replacement. Desired outputs of quality of life or logistic systems do not stand still but instead rise with time,

so improving efficiency can mean improving output at constant input as well as reducing cost. Furthermore, overreliance on a selected few measures can distort performance.

Nevertheless, accurately measuring cost and performance has potential to improve both. Measurement enables setting standards for comparison of different sources and methods of providing services. DLA management is taking advantage of this sort of information in its drive for efficiency. When cost accounting and performance measurement are continuous and routine, then analysis to support sourcing decisions will be easier, more accurate, and less subject to self-interested influence than *ad hoc* analyses. Also, sound strategic planning is needed to

**“Cost accounting and performance measurement could influence the programming-budgeting process by helping to identify more efficient and effective ways to conduct defense operations.”**

identify DoD and Service core competencies. They will not emerge from the check-board results of individual A-76 competitions or from application of vague definitions of “inherently governmental” functions.

Motivation is a vital element, too. While perhaps chafing at having to submit their organizations to painful A-76 procedures, the Services signed up on the expectation of diverting the savings to modernization. The most recent Air Force budget guidance allows major commands to retain in their budgets a share of efficiency savings through the five years of the defense program. DLA is motivated not only by the agency performance contract with OSD but also by its ongoing competition for a greater share of the defense logistics mission.

Redundancy in DoD is usually justified as reducing risk, but it can actually contribute to efficiency if accurate accounting and performance measures enable internal customers to make informed comparisons among competing providers. DoD cannot take advantage of the efficiency of commercial markets by one-time conversions from in-house to contract: competitions and recompetitions must continue. Only with comprehensive strategies

for meshing the efforts of contractors, in-house civilians, and military units—together with knowledge of the cost inputs and performance outputs of each—can the full benefits of competitive sourcing be realized.

Cost accounting and performance measurement systems in DoD have been immature, so OSD leaders had few alternatives in the short term to the focused direction of business improvements. In fact the measurement systems described here have required years of effort to reach their current level in the selected organizations. Even with the assistance of modern information systems, establishing them requires major management investment and cultural change. Yet in each case they have contributed substantially to improved performance. Existing legislation like GPRA and the CFO Act along with OSD directives already mandate modern management in DoD, but achieving the reality takes more than legislation and directives. Defense leaders need to emphasize and resource the continuing long-term efforts and knit together the various initiatives in order to establish efficiency as a conscious goal of every defense organization. That would truly revolutionize defense business affairs.



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**REFERENCES**

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- Army Managerial Costing Steering Committee. (1999, December 2). *Defense-wide implementation of cost management/activity based costing* [online] (briefing). Online: [http://www.ceac.army.mil/web/Downloads/Mcsc\\_12/1\\_Bagby\\_Update.ppt](http://www.ceac.army.mil/web/Downloads/Mcsc_12/1_Bagby_Update.ppt).
- Brown, E. (1998, August). *Reinventing government research and development: A status report on management initiatives and reinvention efforts at the Army Research Laboratory*. Adelphi, MD: Army Research Laboratory. Online: [http://www.arl.mil/mginit/Brown\\_sr-57.pdf](http://www.arl.mil/mginit/Brown_sr-57.pdf).
- Cohen, W. S. (1997, November). *Defense reform initiative report*. Washington, DC: U.S. Government Printing Office.
- Cohen, W. S. (2000). *Annual report to the President and the Congress*. Washington, DC: U.S. Government Printing Office.
- Defense Logistics Agency. (Undated). *Lessons learned A-76 documents and sites* [online]. Online: <http://www.fo.hq.dla.mil/A-76/LessonsLearnedA-76Directory.html>.
- Defense Logistics Agency. (1997). *Defense Logistics Agency performance report, fiscal year '97* [online]. Online: <http://www.dla.mil/Performpercent20Report.htm>.
- Defense Logistics Agency. (1999, September). *Strategic plan 2000, DLA 21* [online]. Online: <http://www.reinvent.dla.mil/DLA21>.
- Defense Logistics Support Command. (2000, March 8). *DLSC-AI overview briefing*. Washington, DC: Author.
- Department of the Air Force. (1999, February). *Air Force strategic plan: Vol. 2, Performance plan*. Washington, DC: Author.
- Department of the Air Force. (2000, February 1). *Air Force instruction 90-1102: Performance management*. Washington, DC: Author.
- Department of Defense. (2000, February 24). *Defense Reform Initiative reform directives* [online]. Online: <http://www.defenselink.mil/dodreform/drids/>.
- Department of the Navy (Strategic Sourcing Support Office). (2000, January). *A guide to conducting functionality assessments* (draft) [online]. Online: [http://help.n4.hq.navy.mil/reference\\_documents/guidance/Draft.pdf](http://help.n4.hq.navy.mil/reference_documents/guidance/Draft.pdf).
- Ferris, N. (1999, December). *Targeting. Government Executive*.

- Gansler, J. (1999, July 9). *Defense-wide implementation of activity-based management* (memorandum). Washington, DC: Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics.
- General Accounting Office. (1996, June). *Executive guide: Effectively implementing the Government Performance and Results Act* [online] (GAO/GGD-96-118). Online: <http://www.gao.gov/special.pubs/gpra.htm>.
- General Accounting Office. (1999). *DoD competitive sourcing: Questions about goals, pace, and risks of key reform initiative* [online] (GAO letter report, 02/22/99, GAO/NSIAD-99-46). Online: <http://www.access.gpo.gov/>.
- Hamre, J. (1998, January 28). *DoD Reform Initiative Directive No. 23: Defense agency performance contracts* [online] (Memorandum, Office of the Deputy Secretary of Defense). Online: <http://www.defenselink.mil/dodreform/drids/drid23.htm>.
- Kaminski, P. (1997, April 24). *Defense efficiencies and outsourcing*. Presented at the Association of the Industrial College of the Armed Forces Privatization and Outsourcing Symposium, Crystal Gateway Marriott, Arlington, VA.
- LaGrange, G. (1999, December). *Fort Riley ABM briefing*. Unpublished.
- Maroni, A. (1998, Winter). Department of Defense implementation of the Government Performance and Results Act. *The Armed Forces Comptroller*. 43(1), 12–14.
- Office of Management and Budget. (1996, March). Circular A-76, *Revised supplemental handbook, performance of commercial activities* [online]. Online: <http://www.deskbook.osd.mil>.
- Office of the Under Secretary of Defense for Acquisition and Technology. (1996, August). *Report of the Defense Science Board Task Force on outsourcing and privatization*. Washington, DC: Author.
- Pearsall, D., & Hill, T. (1999). *Mission capability assessment system* (briefing). Norfolk, VA: Commander in Chief Atlantic Fleet (CINCLANTFLT).
- U.S. Army Forces Command. (1999). *Service-based costing* [online]. Online: <http://freddie.forscom.army.mil/reeng/Costing/Costing.htm>.