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INSTITUTE FOR DEFENSE ANALYSES

Next Steps for Managing Defense Agencies, Field Activities, and Support Process

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EXECUTIVE SUMMARY

The Secretary of Defense is authorized to consolidate functions in Defense Agencies whenever this would increase DoD's mission effectiveness or efficiency. Twenty-two Agencies (some called Field Activities) perform common support functions such as technology development, logistics, communications, finance and accounting, and quality-of-life services for military personnel. Agency customers include the geographic and functional CINCs, the Military Departments, military families, and other Agencies.

The Institute for Defense Analyses was tasked by the Deputy Secretary of Defense to identify Agency management issues that warrant the attention of DoD's senior leadership in preparation for the FY 2001 Quadrennial Defense Review. Our examination covered fourteen of the Agencies, which in total account for 20 percent of DoD's budget.

Finding 1: The current assignment of functions to the Defense Agencies is consistent with DoD's missions and policies.

Secretaries of Defense have established Agencies in areas where they found pre-existing performance problems, duplication of effort among the Services, or a need to provide a DoD-wide programmatic focus on an important technology or mission area. Eight of the fourteen Agencies were created before 1975, following the Defense Reorganization Act of 1958. In the 1990s, four new Agencies were formed, and DoD tasked several Agencies to absorb significant new missions along with the transfer of 100,000 Service personnel. Through the Defense Management Reforms and the Defense Reform Initiatives, the Agencies reduced their total manpower by one-quarter, and DoD increased "tooth-to-tail" by cutting DoD-wide costs in such areas as logistics, communications, and finance.

Some in the Military Departments believe that OSD's supervision of the Agencies has been deficient, and that some Agency missions should be returned to the Services. We find, in contrast, that needed improvements in DoD's support functions can best be achieved within the existing assignment of missions. Questions also were raised about the appropriateness of DoD's role in supplying quality-of-life services, such as dependent education, medical services, and commissary services. We believe any reassessment of these Agency-supplied services should be done in the context of a broader review of DoD compensation policies.

Finding 2: Fixing five DoD-wide management problems would improve the performance of DoD support functions, strengthen working relationships between the Agencies and their customers, and yield significant savings.

Although DoD has benefited from the strategy of consolidating support functions within Agencies, our review identified some long-standing shortcomings in DoD's management of support functions. We recommend five steps to address them.

1. **Strengthen DoD-wide leadership for initiatives to integrate support processes and information flows across the Agencies and their customers.** Our review identifies several support areas where DoD is not achieving the full benefits of modern business practices and information technology, because DoD's components prefer to maintain familiar practices and information systems. Top DoD leadership is needed to unify practices and information flows across the Agencies, Services, and CINCs both to improve business operations and to lay the groundwork for future war-fighting concepts.

2. **Strengthen customer-supplier relationships by strengthening the PPBS process, including performance measurement and readiness reporting systems.** Performance Contracts, negotiated Agency-customer agreements, and Agency Boards of Directors provide mechanisms for establishing goals and metrics for peacetime performance and combat readiness, as well as for basing resource planning on customer requirements and priorities.

3. **Adopt a strategic approach for a top-management review of opportunities to use commercial support capabilities.** Many external reviews have found that the Agencies and Services define functions too narrowly and move too slowly in evaluating opportunities for tapping commercial capabilities. DoD's top management should take the lead in a broad-gauged review of innovative commercial approaches.

4. **For goods and support services purchased through the Working Capital Funds, set prices based on the incremental costs of service, baselined against commercial pricing.** In addition, readiness-related costs should be covered by special appropriations, rather than added to peacetime rates, so that DoD customers can compare and select between Agency-supplied services and private-sector alternatives, based on the costs and quality of service provided.

5. **Create an OSD framework to support the Secretary in implementing these initiatives.** This would maximize the improvements achievable with the limited time the Secretary and Deputy Secretary can devote to improving support functions.

We did not estimate the cost savings that would result from these steps, but experience and prior studies indicate the savings would be substantial. The potential improvements in performance, readiness for wartime, and customer-supplier relationships are the strongest motivations for acting.

INTRODUCTION

The Deputy Secretary of Defense commissioned this review to examine the major non-intelligence Defense Agencies so as to identify issues that merit top-management consideration in the FY 2001 Quadrennial Defense Review. In conducting the review, the Institute for Defense Analyses formed Agency assessment teams that met with Agency officials, reviewed Agency plans and programs, interviewed Agency customers, and examined available information on Agency performance. Each chapter in the body of this report presents a comprehensive review of a particular Agency's mission, history, management initiatives, and performance.

This introduction describes the Agencies IDA reviewed and summarizes our findings, which are covered in detail in the body of the report. We then discuss five broad initiatives to strengthen DoD's management of support functions.

A.   AGENCY ORIGINS AND FUNCTIONS

The fourteen Agencies covered in this review (Table 1) account for $58 billion in total annual spending, roughly 20 percent of the defense budget.[1] The largest two, the Defense Logistics Agency and the TRICARE Management Activity, account for nearly 60 percent of this spending. Taken together, these fourteen Agencies comprise an enterprise that is on the scale of the U.S. Army.[2] The Agencies' customers include the geographic and functional unified combatant commands, the Military Departments, other Agencies, and military personnel and their families. Annex C provides a chronology of major DoD actions on Agencies, along with synopses of the major reviews and initiatives affecting the Agencies. A synopsis follows.

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[1]   A total of twenty-two Defense Agencies and Field Activities perform common support functions under the oversight of the Office of the Secretary of Defense. Collectively, we will refer to these organizations as Defense Agencies, or Agencies. Intelligence Agencies (NSA, NRO, NIMA, DIA) were not included in our examination; neither were the following Field Activities: American Forces Information Services, Office of Economic Adjustment, Defense Prisoner of War/Missing Persons Office, Washington HQs Service.

[2]   Expenditures include appropriated funds and working capital fund expenditures.

Table 1. Agencies and Expenditures* ($ Billions)

	Organization	
Common Support	*Defense Logistics Agency (DLA)***	16.5
	*Defense Information Systems Agency (DISA)***	4.0
	Defense Security Service (DSS)	0.5
	Defense Finance and Accounting Service (DFAS)	2.0
Quality of Life	Defense Commissary Agency (DeCA)	6.0
	DoD Education Activity (DODEA)	1.5
	TRICARE Management Activity (TMA)	17.4
Contracting, Audit and Legal	Defense Contract Management Agency (DCMA)	1.0
	Defense Contract Audit Agency (DCAA)	0.4
	Defense Legal Services Agency (DLSA)	<0.1
DoD-Wide Programs/Initiatives	Defense Advanced Projects Research Agency (DARPA)	1.9
	Ballistic Missile Defense Organization (BMDO)	3.9
	*Defense Threat Reduction Agency (DTRA)***	2.0
	Defense Security Cooperation Agency (DSCA)	0.1

*   Expenditures include appropriated funds and working capital fund expenditures.
** Combat Support Agencies

The Defense Reorganization Act of 1958 gave the Secretary of Defense the authority for consolidating and assigning to a single organization any services and support activities common to more than one Military Department:

> *Whenever the Secretary of Defense determines it will be advantageous to the Government in terms of effectiveness, economy, or efficiency, he shall provide for the carrying out of any supply or service activity common to more than one Military Department by a single Agency or other such organizational entities as he deemed appropriate.*[3]

The concept for consolidating common functions stems from President Eisenhower's 1958 Message to Congress supporting the Act. Speaking specifically about research and development, President Eisenhower noted that,

> *The Secretary must have full authority to prevent unwise service competition in this critical area. He needs authority to centralize, to the extent he deems necessary, selected research and development projects under his direct control in organizations that may be outside the military departments.*

Speaking more broadly about the desirability of integrating policies and procedures across the Services, he wrote,

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[3]   Section 202 of the 1958 Reorganization Act.

I specifically call attention to the need for removing doubts concerning the Secretary's authority to transfer, reassign, abolish, or consolidate functions of the Department.

Secretaries of Defense have found it advantageous to consolidate support functions in Defense Agencies to serve three purposes. First, most Agencies were formed to take advantage of efficiencies from consolidating activities that had been performed separately by each Service. This category includes four common support Agencies: DLA, DISA, DSS, and DFAS; it also includes three Agencies that provide quality-of-life services: DeCA, DODEA, and TMA. Second, some Agencies were formed to unify policy, as well as to achieve economies of scale. These include Agencies with contracting and audit responsibilities: DCMA, and DCAA; also DLSA, an organization of about 100 lawyers serving as adjuncts to the OSD General Counsel.[4] Third, four Agencies were established to take responsibility for DoD-wide technology programs: DARPA, BMDO, DTRA, and DSCA.

The first Agency established under the Defense Reorganization Act of 1958 was the Advanced Research Projects Agency, today the Defense Advanced Research Projects Agency (DARPA). Eight of the fourteen Agencies covered in this review, or their predecessor activities, had been established by 1975 (see Table 2). By 1975, Agency staffing had grown to about 78,000.

Table 2. Agency Origins

Pre-1975	1975 to 1990	After 1990
DARPA DISA DLA DTRA DSS DCMA DCAA DSCA	DLSA BMDO	DoDEA TMA DeCA DFAS

Over the next 15 years (1975-1990), two more of the fourteen Agencies in our review were formed: the Defense Legal Services Agency and the Strategic Defense Initiatives Office (today, the Ballistic Missile Defense Office). Agency manning grew a little more than 28 percent, reaching about 100,000 in 1990.

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[4] Although DLSA was included in the review, we did not prepare a separate chapter on this organization for the body of the report.

Beginning in the late 1980s with the "Defense Management Report (DMR) to the President," July 1989, DoD initiated aggressive initiatives to consolidate support functions in the Defense Agencies. Nearly 100,000 support personnel were transferred from the Services to the Defense Agencies in the late 1980s and early 1990s. Following on the DMR, the Defense Reform Initiative (DRI) report issued by the Defense Reform Task Force in November of 1997 took steps to further reduce the Department's overhead. Significant savings were achieved as a result of these initiatives. Between 1990 and 2001, DoD cut total Agency personnel by 27 percent, even as major new missions were being assigned to the Agencies. We will provide examples of how the Agencies achieved these reductions in the next section.

Figure 1 provides a perspective on the budgetary consequences of the transfer of functions to the Agencies. The figure highlights cases where the assignment or transfer of major missions to the Agencies has increased their share of DoD's appropriated budget relative to those of the Services. First, beginning in 1984, the Strategic Defense Initiative Office undertook the management of this Defense-wide program, adding roughly $5 billion to total Agency spending. In the early 1990s, the creation of TMA represented a transfer of $18 billion in funds from Service accounts to Agency accounts. (Because Figure 1 includes only appropriated funds, it does not show the effects of the transfers in the early 1990s of functions performed by DFAS, DLA, and DISA that are funded through Working Capital Funds.)

Understanding the basis for this growth in Agency budgets is important, because we have seen significant frustration within the Services that the share of funding for Defense Agencies has grown over the last decade. Service officials believe that the Agencies' budgets are not being scrubbed adequately as DoD continues to downsize its combat forces. As Figure 1 demonstrates, it is true that the total share of DoD funding that flows to the Agencies has grown substantially, but, in large measure, this reflects an aggressive DoD strategy to consolidate support functions in the Agencies in order to reduce support costs.

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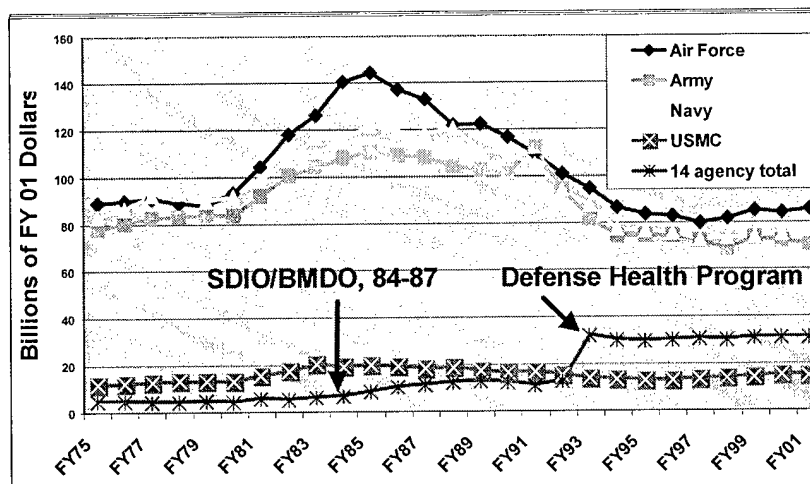
1984 SDIO (now BMDO) established, soon reached $4B

1991 DFAS established, 20,000 personnel transferred

Personnel transfers to DLA:
  1990 consolidation of supply depots, 26,000 personnel
  1991-95 consolidation of consumable item mgmt., 11,000 personnel.
  1990 consolidation of contract mgmt. in DLA, 5,400 personnel
  1996 printing consolidated in DLA, 6,500 personnel

1992 Defense Commissary Agency formed, $1B transferred

1993 Defense Health Program established, $18B transferred

Figure 1. Agency and Service Budgets[5]

1. Savings in DoD-wide Support Costs

The evidence demonstrates that DoD's strategy for reducing support costs has, in fact, achieved savings. For example, by the end of FY05, the Defense Finance and Accounting Service will have accomplished a 44 percent reduction in personnel performing finance and accounting services, relative to its peak in 1995; the Agency has consolidated functions that were previously performed by 32,252 personnel in the Military Departments and Defense Agencies. As personnel were transferred to DFAS, its staffing reached a peak of 27,000 work years in FY95. Under DFAS, the number of separate finance systems has been cut from 127 to 15 and the number of accounting systems from 197 to 53. The FY02 President's budget showed DFAS reducing to 18,629 work years at the end of FY01, and to 15,289 work years by the end of FY05.

The Defense Commissary Agency consolidated the Service's parallel commissary functions, and it subsequently reduced staffing levels nearly 30 percent by contracting out functions that had been performed internally.

The Defense Logistics Agency reduced its staff by more than 50 percent, while adding major missions. DLA has privatized a substantial portion of its workload through

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5   The figure includes appropriated funds only, not expenditures from the working capital funds.

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the prime vendor program that permits customers to order directly from commercial firms through DLA.

Within the Defense Information Systems Agency, the consolidation of mainframe computer processing and other initiatives allowed total military and civilian staffing within the Agency to be cut from some 12,500 in FY93 to 8,000 in FY01. The consolidation of some 194 mainframe centers across DoD into six operated by DISA reduced the number of government personnel supporting mainframe processing by 87 percent, from nearly 10,000 in FY90 to less than 1,300 in FY00.

The strongest evidence of DoD's cost savings through consolidation is provided by DoD's resource allocation data for three major support functions: logistics, communications/information, and healthcare. These data are provided by DoD's force and infrastructure database, developed to estimate total DoD-wide spending in functional areas. Figures 2 and 3 present the changes in total DoD-wide funding and staffing levels associated with the three major support functions between FY92 and FY01. These are compared with similar data for all DoD operating forces.

Figure 2 shows that while funding was cut by 21 percent for operating forces over the period FY92 to FY01, DoD cut logistics and communications/information spending by over 30 percent. Manpower for operating forces was reduced 20 percent, but was cut by 50 percent in both the logistics and the communications/information categories. The consolidation of these logistics and communications activities in the Defense Agencies and subsequent efficiencies achieved by the Agencies deserve much of the credit for these savings.

The data in Figure 2 show that DoD has not been able to cut the cost of medical care; this reflects the general trends of cost growth in medical care and the difficulty DoD has had in controlling costs under the TRICARE healthcare system. The staffing data in Figure 3, however, show that TMA has achieved staffing cuts of about 20 percent, roughly the same as reductions in operating forces.
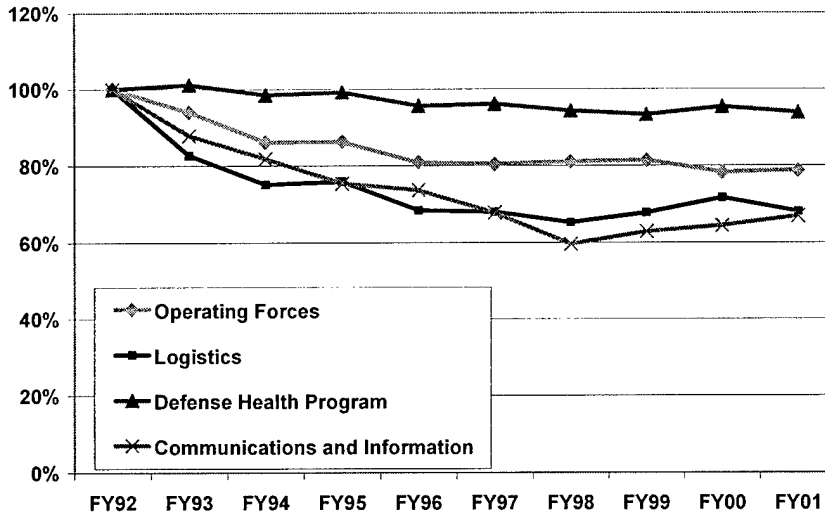
Figure 2. Funding Relative to FY92 (constant dollars)
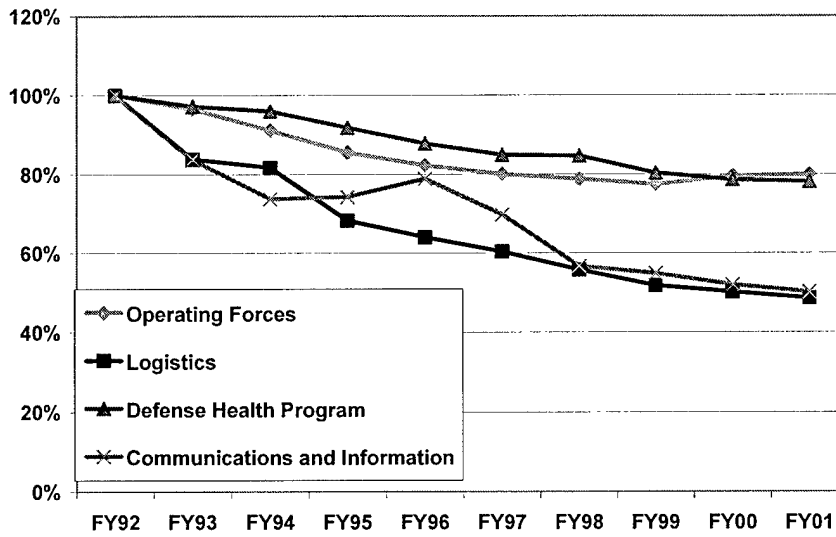
Figure 3. Personnel Levels Relative to FY92 (active military plus civilian)

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B. FINDINGS: AGENCY PERFORMANCE AND MANAGEMENT

While the cost savings from consolidating functions in the Agencies is supported by the evidence, there nonetheless remains substantial concern over DoD's approach to managing the Agencies. To gain a perspective on these matters, the IDA reviewers sought a balanced view of Agency performance and management from the Agencies' staffs, their overseers, and their customers.[6] We also used DoD's existing performance assessment systems; these include the Joint Staff's Combat Support Agency Review Team (CSART) reports, the Directorate of Management and Administration's survey of Agency customers, and the Defense Management Council's Agency Performance Contracts.[7] The details of our fact-finding and assessments are reported for each Agency in the main body of this report. This section briefly summarizes the findings.

Our assessments of Agency performance focused on four criteria:

- Effectiveness in peacetime
- Business practices
- Effectiveness in wartime
- Support for innovation.

Wartime and peacetime effectiveness deal with the timeliness and quality of support provided to military customers under two very different sets of circumstances: cost per unit of output is the bottom line of the business practices criterion, although we also examined management practices and processes; support for innovation addresses the roles of the Agencies in advancing the goals of military innovation, such as described in Joint Vision 2020, along with the goals of management improvement, such as acquisition reform.

Our findings indicate that *most* of the customers of *most* of the Agencies are satisfied. DoD's 1999 biennial survey of the Agencies' customer satisfaction finds that eight Agencies were rated "satisfactory" or better by roughly 70 percent or more of their corporate customers. These are: DoDEA, DeCA, DLSA, DCAA, DLA, DARPA, DISA, and DTRA. The CINC's reviews of the Combat Support Agencies provide favorable

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[6] We met with the General or Flag officer who is leading each Service or Joint Staff team for the Quadrennial Defense Review. These teams began laying the groundwork for an Agency review early in 2000. We also met with the Service programmers, as well as the representatives from the functional communities that work with the Agencies. Questionnaires were emailed to CINC staffs and their responses were incorporated in the review.

[7] Annex B describes DoD's existing performance measurement systems, and discusses the key role of performance metrics in strengthening DoD's management of support functions and Defense Agencies.

overall assessments for DLA, DISA, and DTRA. Several of these Agencies, particularly DeCA, DLA (and DCMA), and DCAA, have strong management systems in place, including effective strategic planning and management systems linked to aggressive performance measurement processes. Taken as a whole, the Agencies perform much better than their critics claim. Table 3 presents a summary of Agency issues.

At the same time, several significant management issues remain. In important respects, the concerns of today echo those of earlier critiques of DoD's management of support functions and the Defense Agencies.[8] The first comprehensive review, completed 20 years ago by MG Theodore Antonelli (USA, Ret.), found that Agencies tended to center their efforts on peacetime efficiency rather than wartime effectiveness. MG Antonelli also concluded that the Agencies functioned largely independently, with little DoD-wide management supervision. Similar concerns about DoD's management of the Agencies have been reported over the last two decades by the Locher review, "Defense Organization: The Need for Change;" the Packard Commission; the Commission on Roles and Missions; the Quadrennial Defense Review; the Defense Reform Task Force; and the Defense Reform Initiatives Report.

1. Peacetime Effectiveness and Business Practices

Most of the specific issues raised in our interviews were focused on peacetime performance and business practices. One reason for this is that these are the areas that receive the greatest ongoing attention within the Agencies, and throughout DoD. Four common themes emerged. These are briefly described here, and discussed in greater depth in the next section.

The first common theme is the lack of leadership mechanisms for integrating support processes and information systems across organizational lines. For example, in the case of DFAS, the transmission of base-level pay data from the Services to DFAS personnel centers is often cumbersome and error prone. When top management leadership is lacking to forge integrated solutions across the Agencies and Services, customers and suppliers often do not have the information exchange necessary to achieve efficient solutions. In such circumstances, organizations may sub-optimize, engaging in costly risk-hedging activities due to their lack of visibility into, and confidence in, the overall process. Sometimes the performance metrics of individual process participants may be incompatible with the overall goals of the process.

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[8]   As noted earlier, these are provided in Annex B.

Table 3. Summary of Agency Issues

AGENCY	Peacetime Effectiveness	Business Practices and Efficiency	Wartime Effectiveness	Support for Innovation (JV2020 & Acq. Refom.)
DLA	· Services question DLA priorities; want greater influence · DLA-TRANSCOM-Service processes are fragmented	· Services want freedom to seek alternative suppliers · Services want better visibility of costs and pricing · Review billets for privatization		· Lack of end-to-end global logistics processes to support focused logistics
DISA	· Some network performance problems stem from limitations in base-level infrastructures · Customers see commercial telecom. as faster, better, cheaper than DISN	· Customers want freedom to contract directly with commercial vendors · Customers want better visibility of DISA costs and pricing · Merge contracting within DCMA?		
DSS	· Huge backlogs · DSS-Service info flows lacking		· Services operating on interim clearances	
DFAS	· DFAS-Service process handoffs are cumbersome and error prone	· 9K billets eligible for privatization review		· Logistics-finance process integration to support JV2020 · Paperless contract & paymnts needs DoD-wide support
DCMA		· DCMA reluctant to consider outsourcing some workload		· Leads paperless contracting, but slow to reduce inspections
DARPA	· Effectiveness limited by missing link to Service acquisition plans			· Improved process needed for transitioning joint technologies
DTRA	Synergy of missions questioned		· Clarify role in Homeland Defense	· Strengthen chem, bio, nuclear technology transfer processes
BMDO	· Program driven by natl. priorities			
DSCA	· FMS process is cumbersome and lacks visibility; many stakeholders			
DECA	· Valued service; but is $1 billion subsidy needed for quality of life?	· 15 K billets eligible for privatization review		
DODEA	· Valued service; above average to excellent education	$9.8K per student vs. $6.6K national average		
TMA	· Defense Health Program system lacks integration	· Escalating costs and surcharges a major concern		
DCAA				· Need end-to-end contract-audit-payment system
DLSA				

The second common theme is the need to strengthen customer-supplier relationships. Services want more visibility into resource decision making with respect to the Agencies, and greater influence in shaping Agency requirements and priorities. For example, many of DLA's customers believe that their priorities are not adequately reflected in DLA's inventory and response-time decisions, and, as a result, some high-priority customer items do not get adequate priority within DLA. The Office of Program Analyses and Evaluation (PA&E) has pursued, as a DRI initiative, the development of Agency Performance Contracts in order to document requirements and performance expectations between the Agencies and their customers and to use this as the basis for a systematic program review of support functions.

A third common theme is the need to accelerate DoD's initiatives to tap the technology and resources of the private sector. Section A provided illustrations of how DoD has reduced support costs through the consolidation of support functions in the Agencies. We believe this process can be accelerated by considering broad functional areas in examining how DoD can further use the capabilities of the private sector in performing support functions. Such initiatives have a proven potential to reduce costs; they also provide a mechanism for ensuring that available military and civilian billets are employed most effectively.

A fourth theme, which is common to those Agencies that provide goods and services funded through the Defense Working Capital Fund, is DoD's pricing policies. DoD's approach creates significant dissatisfaction among Agency customers; it induces some customers to bypass the Agencies, thereby undermining the business base necessary to support Agency operations. Initiatives to address these common problems are the focus of Section C.

In addition to these common themes, some specific performance issues were raised with respect to DSS, TMA, DSCA, and DFAS. DSS and TMA were two of the lowest scorers in DoD's corporate customer satisfaction survey, and they also have among the lowest rate of success in meeting DoD's performance goals—about 50 percent each.

- Defense Security Service. DSS has been the focus of extensive criticism across DoD; it is commonly cited as the prime example of an Agency that is failing to perform its mission to provide personnel security investigations to support DoD security clearances, but much of the problem lies in gaining sufficient information from the Services and user community to predict workloads, and having insufficient resources to cover the work that needs to be done. An information technology initiative that was intended to expedite the process failed during the critical time period and made the personnel security applications backlog situation more severe. The backlog forced the Services to rely on interim clearances to fill sensitive combat billets. DSS is implementing a "get well" plan that includes an aggressive effort to contract with private sector firms to work off the backlog in personal security applications.

- TRICARE Management Agency. TMA has been the focus of much attention, as DoD has consolidated health services and instituted a series of private HMO provider contracts. GAO has identified health care as a leading cause of dissatisfaction among both officers and enlisted personnel;[9] the Military

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[9] "Quality of Life and Retention," GAO/NSIAD-99-197BR, 1999.

Services are greatly concerned with the increases in health care premiums and resulting growth in budget requirements for health care. TMA is in the process of negotiating new contracts.

- **Defense Security Cooperation Agency.** The low level of satisfaction with the DSCA reflects the Agency's role as an enforcer and interpreter of rules for armaments sales. The Services are concerned with the timeliness and responsiveness of arms sales approvals.

- **Defense Finance and Accounting Service.** DFAS presents a unique case, because it scores very high in terms of its performance metrics, business approach, and efficiency gains, but it is performing weakly in terms of customer satisfaction. This may reflect transitional problems due to DFAS's aggressive push to consolidate information systems, but its long-term performance and customer satisfaction should be monitored carefully. As noted earlier, cumbersome handoffs persist between base-level data systems and DFAS's consolidated systems. We find this is an area where DoD-wide support process integration would contribute greatly to both performance and efficiencies.

2. Wartime Effectiveness

The Joint Staff provided the IDA review team with CSART reports for DISA, DTRA, and DLA.[10] The CSARTs summarize and assess the views of the CINCs and their staffs on the readiness of the Combat Support Agencies to support the CINCs' war plans. They also comment on a wide range of concerns with peacetime performance and business practices. The CINCs laud DLA and DISA for their contributions to joint command effectiveness. DTRA was found to provide satisfactory support to combat forces.

The common theme in this area is the need to establish effective readiness reporting for support functions and related Agencies. As noted above, several earlier reviews of Agency management expressed the concern that DoD has been too focused on cost savings and has taken cost-cutting actions that have reduced the capability for wartime support. Systematic systems for reporting Agency readiness, in the context of the readiness of overall support functions, should be introduced. Creating an effective reporting system will require clarification of wartime requirements for support as well as systems to assess DoD's capability to meet the requirements.[11] We believe that readiness

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[10] Combat Support Agency Review, J-8, 2001.

[11] For a discussion of current readiness reporting systems and needed improvements, see John C. F. Tillson, et.al., "Review of DoD's Readiness Reporting System," Institute for Defense Analyses, Alexandria, Virginia, June 2001.

needs and reporting should be incorporated in the management metrics established for each of the Agencies under the Performance Contracts.

Our study identified only a few specific issues relating to wartime effectiveness. One specific concern raised in the CSART is that DISA should be deploying new technology more quickly to keep pace with commercial standards. We have already mentioned the concern raised in our interviews with the DSS backlog of security clearances; because of this backlog, combat commanders are sometimes forced to assign sensitive duties to personnel operating under interim security clearances. The concern expressed with DTRA relates to the government-wide challenge of effectively assigning homeland defense missions.

3. Support for Innovation

Our final assessment criterion focuses on the Agencies' roles in transforming war-fighting capabilities and enabling the revolution in business affairs.

Although we did not get many specific comments on these matters in our interviews, we found a common concern that support processes must be revised in order to implement future war-fighting and support concepts. DLA's role in the JV2020 concept of focused logistics is an obvious example. As another example, DISA's goal to establish a common Global Information Grid is an essential foundation for implementing future war-fighting concepts. A unified infrastructure is needed to support joint interoperability and achieve the level of information dominance envisioned in JV-2020.

The management of innovation touches on two of the common themes discussed already. First is the need to create integrated support processes and information systems. DoD-wide approaches for integrating processes and information systems is needed to support future war-fighting concepts, as well as for improving the performance of the functions today. Second, metrics for the transformation of support functions would provide a basis for judging progress. Customer requirements for innovation, and associated performance metrics, should be established for each of the Agencies under the Performance Contracts.

C. ADDRESSING THE COMMON MANAGEMENT ISSUES

Our fact-finding identifies four common management issues that define the major challenges that must be addressed in strengthening the management of the Agencies and the associated support functions. These are: 1) the need to integrate DoD support processes and information systems in order to adopt modern business practices; 2) the need to strengthen Agency-customer relationships through the DoD planning, programming, and budgeting system; 3) the need to adopt a strategic perspective for decisions on competitive sourcing; and 4) the need to price goods and services more competitively. In addition, we have identified a fifth common theme associated with the implementation of these needed improvements. Stronger DoD-wide leadership and supervision of the Agencies is an essential enabler for achieving unified approaches for addressing the problems we have identified.

These five management issues are addressed in turn. To assist in organizing the discussion, each is summarized in Table 4, along with the associated Agencies.

Table 4. Common Management Issues

Issue	Agency
Fragmented support processes that involve the Agencies but are not under their control should be managed in an integrated fashion.	DLA, DISA, DSS, DFAS, TMA, DSCA, DARPA, DTRA, DCMA, DCAA
Customer-supplier interaction should be strengthened through the PPBS decision-making process, including: - Performance metrics - Readiness reporting	All lack customer definition of requirements, peacetime quality of service expectations, and wartime readiness standards Requirements forecasts and rate setting are especially troublesome for the Services and Agencies operating under the working capital fund: DLA, DFAS, DISA, DSS
Competitive sourcing potential should be assessed from the strategic perspective.	DLA, DISA, DeCA, DFAS, DCAA, DCMA
Clearly explained and justifiable pricing based on improved cost accounting and bench-marking should be established.	DLA, DISA, DFAS
A DoD-wide management framework that provides sustained attention, guidance, and support is needed.	All

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1. Strengthen DoD-wide leadership for initiatives to integrate support processes and information flows across the Agencies and their customers

It is well understood that enterprise-wide initiatives to document, simplify, integrate, and control business processes can significantly improve performance and reduce costs. Process improvement has been a major focus of government and private managers alike over the last decade. A few high-payoff support process improvement initiatives under the leadership of the Secretary of Defense could resolve some of the thorniest Agency performance issues identified in our review.

Figure 4 illustrates the extent of the challenge that can be involved in integrating DoD's support processes. The figure presents a simplified illustration of the logistics process for deployed forces. No single participant has authority or accountability for this entire process; it involves commercial firms, the Defense Logistics Agency, the Service support communities, TRANSCOM, and the supported CINC and component commands. DLA is responsible for only a small part of this overall process. The CINC develops the war-fighting concepts and the component commands in theater generate wartime requirements for materiel. TRANSCOM develops strategic mobility requirements.
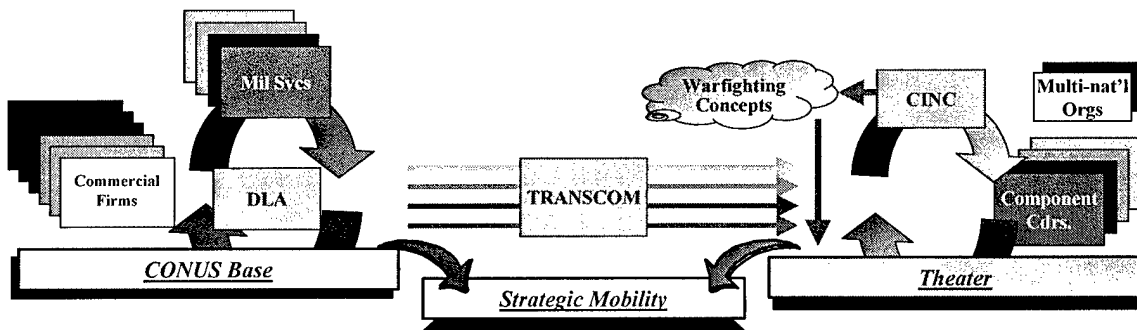
Figure 4. The Logistics Process in Wartime

Voluntary collaboration and coordination have contributed to significant innovation and logistics improvements. As noted below, Prime Vendor, and the Strategic Distribution Management Initiative, are excellent examples of what has been accomplished. But there are limits to this approach. Experience shows that the integration of processes is difficult to achieve in any large organization, public or private, because the necessary changes alter internal relationships and upset accepted practices. Success requires the sustained support and focus of the Chief Executive Officer. Later in this

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chapter we discuss alternative approaches for strengthening top-management leadership for initiatives to improve support processes.

DoD has been making headway with a range of initiatives to address these kinds of problems. Improvement initiatives are under way to integrate support processes and information systems in logistics, as well as in other functional areas. Examples that illustrate initiatives that are under way, the kinds of gains that are possible, and the difficulties that can be encountered, include:

- Prime Vendor. The Prime Vendor program involving DLA, DFAS, DCMA, and the Service supply systems provides an excellent example of what can be achieved through collaborative efforts. A common framework enables DoD customers to order goods electronically, receive goods directly from commercial suppliers, and make payments electronically.

- The Strategic Distribution Management Initiative (SDMI). This initiative is a DLA and TRANSCOM collaboration to more fully integrate their piece of the logistics process. Addressing broader issues will require expanding the scope of and participation in SDMI.

- The Global Information Grid, Defense Information Infrastructure Common Operating Environment, and Global Command and Control System (GCCS). Leadership from the Joint Staff, DISA, and ASD(C3I) are enabling the introduction of common architectures and systems that reduce costs and improve interoperability.

- The Defense Integrated Military Human Resources System (DIMHRS). DIMHRS is a case where support process improvements have been identified and where common software development promises to reduce DoD-wide costs by one-half to two-thirds. While progress was slow for several years, renewed top-management emphasis from the Under Secretary for Personnel and Readiness has accelerated progress in the last year.

The Agency chapters in the main body of this report explain in greater detail why there is a need for further progress in these areas, and they identify other support areas where similar process improvement initiatives are needed. In each case, a DoD-wide leadership framework that could unify the efforts of the Services and Agencies would significantly accelerate progress and increase the long-term chances for success. Success requires the careful selection of target areas, clear goals and milestones, effective teams with capable leaders, and adequate resources for information system investments.

We believe that DoD should evaluate process improvement initiatives, including mechanisms for strengthening the top-management leadership for such improvements. Our review suggests that initiatives should be considered in each of the following areas:

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- Global Logistics
- Defense Acquisition Process (accelerate implementation of such DoD-wide initiatives as the single process initiative; electronic commerce; contracting and payments)
- Global Information Grid and Joint Command and Control
- Personnel Security
- Finance and Payments Processes
- Defense Health Program
- Security Assistance.

We have not estimated the payoff associated with solving the process problems in each of these areas, but we believe improvements could save DoD hundreds of millions of dollars annually.

2. Strengthen customer-supplier relationships by strengthening the PPBS process, including Performance Contracts that implement performance measurement and readiness reporting systems

Under the existing governance structure, each Agency reports to a Primary Secretarial Assistant (PSA) in the Office of the Secretary of Defense. The PSAs, usually an Under Secretary or Assistant Secretary, are responsible for overseeing Agency budgets and performance. The Combat Support Agencies (DLA, DISA, DTRA, DCMA) also receive oversight and assessments from the Chairman of the Joint Chiefs of Staff. In recent years, two additional mechanisms have been introduced for some Agencies in order to strengthen customer-supplier relationships. These are Agency Performance Contracts, and Agency Boards of Directors that include major customers.

Weaknesses in DoD's mechanisms for establishing customer-supplier relationships are at the root of many of the complaints with Agency performance and management voiced by Service representatives interviewed in this study. As noted earlier, these Service interviewees said they are not provided adequate visibility into the Agencies' programs and budgets. They also see a lack of customer orientation and responsiveness in some of the Agencies. These Service representatives believe that because Defense Agencies are monopolies, they have little incentive to become more efficient or to improve customer service. They argue that the Services and combatant commands need to have a more formal role in reviewing Agency requirements and budgets in order to have real influence over their performance.

Our findings do not support these views as across-the-board criticisms of DoD's management of the Defense Agencies—some of the Agencies have very good

relationships with their customers. We find, nevertheless, that a stronger and more systematic OSD-led framework for customer-supplier determination of requirements, expectations, and resource-allocation priorities would materially improve customer-supplier relationships.

The existing Agency Performance Contracts provide a foundation for building the needed customer-supplier relationships. Over the last three years, the contracts have been evolving as a means to document Agency performance goals and quantitative metrics for Agency costs and performance. In some cases, the contracts have involved a commitment to benchmarking and assessments of customer satisfaction. With additional development, top management commitment, and linkage with PPBS resource decision making, Performance Contracts could provide the mechanism needed to establish customer-supplier expectations on performance and to use these as the basis for determining support resource requirements. The steps needed to strengthen the Performance Contracts are discussed in Annex B and are summarized in Table 5.

Table 5. Steps to Strengthen Performance Contracts

Incorporate peacetime performance metrics and readiness reporting	Performance metrics: Review existing performance measurement systems and establish a consistent measurement approach across Agencies. Incorporate the results of DoD's biennial customer surveys in the Performance Contracts. Incorporate benchmarking as an aspect of performance measurement. Extend metrics to cover all the aspects of support functions.
	Readiness reporting: In parallel with peacetime performance metrics, incorporate systematic reporting on the readiness of support processes to meet deployment and sustainment requirements. Incorporate CSART assessments in the Performance Contracts of the Combat Support Agencies.
Cover all aspects of support processes	The scope of the Performance Contracts should be expanded to cover both Agency and Service roles in support processes. In this way, Performance Contracts will help build an awareness of process issues, and provide a mechanism for the participants to discuss requirements, expectations, and resource needs.
Engage customers	Senior Joint Staff and Service programming and functional officials should participate in developing Performance Contracts in order to strengthen the military's role in setting Agency goals and increase their visibility of performance and resource requirements.
Link with PPBS program reviews of support functions	The Agencies' goals and metrics established in the Performance Contracts should be used during the program review phase of the PPBS to provide the basis for setting resource priorities.
	Agency and support process reviews should be held prior to the full program reviews in order to settle Agency budgets and pricing needs prior to reviewing the Services' programs.

It is important that the metrics established in the Performance Contracts be at an appropriate level of detail so that they measure those aspects of performance that should be of concern to top management. It is difficult in government to fine-tune rewards and punishments for performance. Properly constructed Performance Contracts and metrics will, nevertheless, establish clear commitments in important dimensions of performance.

We also recommend that Agency performance be documented in annual reports available to both OSD oversight authorities and the Agencies customers. Annual reports summarizing Agency cost and performance metrics would provide an effective channel of communications to the Agency's customers. Such reports should provide an audited, ten-year history of performance and a five-year projection of goals and plans.

Two other mechanisms for strengthening customer-supplier relationships have been used with success by some Agencies. These should be evaluated by the Agencies and OSD for application in other support areas:

- Negotiated customer-supplier pricing and service agreements between Agencies and their major customers. These agreements provide direct customer-supplier communications on requirements, available resources, and priorities. They would enable the Agencies to negotiate commitments that are tailored to the needs of individual customers, consistent with available resources. Where such customer-supplier agreements are established, they should be incorporated in the metrics and reporting established under the Performance Contracts.

- Boards of Advisors, chaired by OSD with representatives from each of the Agency's major customers, have worked well for some Agencies to assist the flow of information on Agency plans and strategies, and to provide feedback from customers.

3. Adopt a strategic approach for a top-management review of opportunities to use commercial support capabilities

Prior DoD management reviews have recommended a faster pace of competitive sourcing, improvements in the processes used to conduct public-private competitions, and a more strategic approach for identifying the business areas subject to public-private competition.[12] These reviews have concluded that competitive sourcing can improve the focus on core missions and enable DoD to benefit from improved access to private sector

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[12] DoD reviews that have surveyed the status of competitive sourcing and evidence on the benefits of competitive sourcing are: Jacques Gansler, Gordon England, et.al., "Achieving an Innovative Support Structure for 21st Century Military Superiority: Higher Performance at Lower Cost," Defense Science Board, Washington D.C., November 1996; Philip A. Odeen, et.al., "Report of the DSB Task Force on Outsourcing and Privatization," Defense Science Board, Washington D.C., August 1996.

resources, technology, and skills. Table 6 indicates that there are roughly 47,000 billets eligible to be reviewed for competitive sourcing. An additional 63,000 billets that have been exempted by the Agencies should be subjected to an external review and validation.

Table 6. Potential for Competitive Sourcing

| Defense Agency | Civilian and Military Positions FY99 | | | | A-76 Competitions | |
	Total	Inherently Governmental	Excluded from A-76	Eligible for A-76	Planned Studies FY97-07	In Process by FY99
DLA	27456	8416	6425	12615	9867	3978
DCMA	13260	10813	119	2328	0	0
DISA	8566	7699	829	38	0	0
DFAS	20926	2866	1914	16146	7207	1803
DCAA	4279	3763	0	516	0	0
DSS	2447	631	11	1805	0	0
DARPA	179	159	20	0	0	0
DTRA	1067	701	366	0	0	0
BMDO	538	433	87	18	0	0
TMA	362	333	3	26	0	0
DODEA	13482	613	9217	3652	0	0
DECA	17736	2562	4773	10401	1942	619
DSCA	337	337	0	0	0	0
DLSA	95	95	0	0	0	0
Total	110730	39421	23764	47545	19016	6400

Source: Center for Naval Analyses

DoD needs to broaden the scope of the functions to be examined in defining future competitive sourcing initiatives. For example, it is cost-effective in some areas to have a common, corporate activity that is able to act on behalf of DoD in acquiring goods and services. A relevant question is whether, in performing this function, the Agency should actually produce goods and services, or should focus instead on providing the business framework that enables DoD customers to rely on the private sector to accomplish this work.[13]

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[13] This perspective is provided in the DSB study on DoD personnel management. The report concluded that the military must perform military functions, civilian government employees should perform all other governmental functions, and contractors should do the rest. The Business Executives for National

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The Prime Vendor program provides an excellent example of how DoD has established such a business framework. DLA, DFAS, DCMC, and the Services collaborated to establish the business framework that allows customers to buy directly from commercial vendors under an umbrella contract that establishes large-volume pricing, contractual mechanisms, and terms of delivery, all within an efficient electronic ordering and payments system. Thus, missions are fulfilled without DoD's support organizations physically producing, storing, or handling items.

There is reason to believe that a properly executed program of competitive sourcing could yield considerable savings. Many past exercises in commercialization have involved use of the OMB Circular A-76 process to conduct cost competitions between DoD and private providers. Evidence suggests that competitions between government support providers and private bidders tends to reduce costs regardless of who wins the competition, and that the savings can range from 10 to 40 percent.[14]

Most completed competitions have focused on limited sets of activities at individual facilities. The DSB reviews have reported that, historically, A-76 competitions averaged only about 35 positions. While some savings were realized, much greater savings per billet could be gained by strategically identifying entire areas of activity that could be better served commercially. In these circumstances, DoD would be better able to benefit from the application of commercially successful business practices on a broad scale; it would also avoid the cost of conducting numerous small competitions.

OSD officials experienced with recent competitive sourcing initiatives caution that outsourcing is not a panacea, because DoD has had bad experiences as well as successes with outsourcing. This suggests that competitive sourcing needs to be considered on the merits of specific circumstances. The Secretary should commission an independent review of competitive sourcing potential; this review should seek to identify areas where commercial technologies, resources, and skills can contribute the most to improving DoD's support functions and balance these gains against DoD's mission requirements. We believe, for example, that there will be strong synergies obtainable from establishing government-private partnerships to create new processes supported by

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Security also embrace the view that the government Agencies should manage the acquisition of goods and services, but should not be engaged in producing them.

[14] The Center for Naval Analyses has systematically examined the results of DoD's Commercial Activities Program. CNA Research Memorandum 98-134.50, Samuel D. Kleinman and R. Derek Trunkey, "Can DoD Continue to Achieve Large Savings from Competition and Outsourcing," September 1998, summarizes this work, which finds 30 percent savings associated with outsourcing, and concludes that additional outsourcing should yield savings at least as large.

commercially based information systems in areas where process improvements are undertaken.

Related to this general topic, questions were raised in our review regarding the appropriateness of DoD's role in the quality-of-life missions performed by TMA, DeCA, and DoDEA. Should the government provide military personnel with in-kind benefits, such as healthcare, commissary benefits, and dependent education? The Administration is committed to improving military quality of life; it seems apparent that these valued, in-kind benefits will continue to be provided, and therefore that their review would not be a top priority for the QDR. Any assessment of the missions of these Agencies should be done in the context of a review of overall military compensation.

4. Set the prices for goods and services purchased through the Defense Working Capital Funds based on the incremental costs of the service as well as commercial pricing benchmarks

Improvements in DoD's pricing approach could significantly reduce the dissatisfaction among Agency customers, and allow the Agencies to recapture some of the business that has been lost to the DoD support system.[15] The methods Agencies use to calculate prices incorporate a degree of cross-subsidization of high-cost customers who pay too little by low-cost customers who are charged too much. The prices of DLA and DISA also incorporate many DoD-specific requirements, such as pro-rated shares of the cost of high-reliability, security, and the extra capacity needed to handle mobilization and deployment needs. Some customers find it would cost substantially less if they provided their own support, or purchased it from commercial vendors. In some cases, customers are precluded from pursuing cheaper alternatives in order to sustain DoD's customer base and finance DoD-specific requirements. This requirement to buy from the relevant Defense Agency may well be in the broader interest of DoD, but it annoys customers considerably.

DLA has introduced a "price comparability" program, and DISA has introduced "two-tier pricing" in attempts to more closely align peacetime costs and prices with those of commercial alternatives. These represent modest first steps that need to be more fully developed.

An independent analysis should be conducted to determine the optimum way to balance pricing mechanisms, military readiness, and costs (both total to DoD and

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[15] DFAS, DLA, DISA, and DSS charge their customers for services through the Defense Working Capital Fund.

individually to the Services), while accommodating both Service prerogatives under Title 10, and laws and regulations mandating maximum use of commercial capabilities. Agencies should account for their costs in sufficient detail to estimate the costs of DoD-specialized requirements and DoD should pay these costs through Agency appropriations rather than through charges to customers. Customer prices should be set to cover the marginal costs of remaining products and services.

This pricing approach would provide DoD with improved visibility and management control over its specialized needs. It would provide customer prices based on those elements of service that should be comparable to commercial benchmarks. When these pricing adjustments have been completed, DoD should lift the requirement that customers use Agency services where readiness would not be impaired.[16] Where commercial prices are less than DoD's marginal cost, the Department will save money when customers go to non-DoD providers. The provision of DoD-specific services will not be affected, since they will be directly funded.

5. Create an OSD framework to support the Secretary in implementing these initiatives

The initiatives outlined thus far pose significant leadership challenges, because they require integrated, DoD-wide approaches for managing the Agencies and support processes. Support functions are spread among the four Services and twenty-two Agencies. Reporting relationships are such that the chains of command for these organizations do not come together until the very top of the DoD organization—at the level of the Secretary and the Deputy Secretary.

It is commonly accepted that Defense Secretaries, and their Deputies, have been successful in implementing the reform of support functions when they have engaged on specific decisions or initiatives. Experience shows they can resolve problems and

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[16] Some in the Services have proposed to divide networks into two types; the first encompasses those supporting non-critical requirements, and the second is the Defense Information Systems Network (DISN), which supports critical requirements. The Services believe they should be allowed to contract directly with vendors for non-critical, routine, administrative communication services (e.g., an ID card processing network or childcare network — there are hundreds of such networks throughout DoD).

The DISN is the backbone network supporting command and control, intelligence, and other operational requirements. It is the DISN that requires high-cost features such as redundancy, hardening, special encryption, surge capacity, and access into remote areas of the world. DoD policy currently requires ALL telecommunications services (childcare as well as Global Command and Control) to be supported by the DISN. The concept is that economies of scale will drive down total costs to DoD; however, many believe that any cost savings are outweighed by the costs, administrative burden, and operational complexity of trying to manage such a huge, diverse network.

disagreements in areas where less senior OSD staff cannot. At the same time, given the breadth of their duties, the Secretary and his Deputy can devote only small amounts of time to the management of support functions. In order to accomplish the initiatives described up to this point, it will be necessary to strengthen the ability of DoD's top managers to exert their leadership in reforming DoD's management of the Agencies and support functions.

It must be emphasized that the initiatives described here require greater top management involvement, even for those Agencies where existing oversight is judged very effective. In areas where Agency functions are closely coupled with OSD staff responsibilities, such as the relationship between DFAS and the Comptroller's organization, there has been very close and effective supervision of the Agency. At the same time, the current challenge is to forge a unified effort involving DFAS, the Comptroller, and the Services to improve DoD-wide financial processes and information systems. Leadership from the Secretary or Deputy Secretary is essential for such an undertaking.

Two alternative approaches are described here for enhancing the ability of the Secretary and Deputy Secretary to exercise their leadership. The first option is to strengthen top management oversight through existing management mechanisms. This would be accomplished by bolstering the staff support to the Secretary and Deputy for goal setting, assessments, and evaluations of the Agencies. The second option is to create a "Defense Support Executive" who would be assigned full-time responsibility for managing support functions and related Agencies. These options are described, in turn.

Option A: Strengthen staff support to the Secretary of Defense for Agency and support process oversight (Table 7)

The first alternative is to create an OSD staff element to provide a "force multiplier" that maximizes the value of the limited time the Secretary and Deputy have to devote to Defense Agency and support function issues. The staff could assist in setting goals, defining metrics, evaluating performance, and asking tough questions of the PSAs, the Agencies, and the Services. The staff also would support an annual program review of the Agencies and support functions. In combination with the other proposed management initiatives outlined here, the Secretary would be in a much stronger position to shape support process improvement initiatives and to supervise Agency performance.

This approach would require the Secretary or Deputy Secretary to spend a few hours each month on the Agencies and support functions. Each hour of top-management time would be backed up by several hundred hours of staff support time.

The key characteristics of this approach are summarized in Table 7.

Table 7. Option A: An Approach for Strengthening Staff Support

Agencies continue to report to Principal Secretarial Assistants

SECDEF assigns Agency and support function improvement goals to these senior OSD staff, and, through the Senior Executive Council, to the Service Secretaries

SECDEF assigns responsibility for process improvements

The Secretary's staff that support goal setting, review, and evaluation is strengthened. Options:

> Build on current PA&E expertise
> Assign a Deputy Comptroller
> Assign an Assistant to the Secretary of Defense

Strengthen Existing Management Mechanisms

> Performance Contracts & Performance Measurement Systems for Agencies and support functions
> Program Review focused on Support Functions

Option B: Establish a Defense Support Executive (DSE) (Table 8)

The second option for strengthening top-management supervision of the Agencies and support processes is to augment the roles of the Secretary and Deputy Secretary by establishing a Defense Support Executive. The DSE would be assigned responsibility for certain Agencies and would be delegated DoD-wide authority for specified support functions. This person would devote full time to these responsibilities. A staff assigned to the DSE would assist in developing goals, defining metrics, and evaluating performance. The staff would manage an annual program review focused on the Agencies and support processes.

The creation of the DSE would reinforce the business management orientation of the initiatives we have proposed, and would provide DoD with the sustained, day-to-day focus needed to implement the necessary improvements. This option would relieve the Secretary and Deputy Secretary of the more time-consuming tasks associated with

improving Defense Agency performance. The PSAs on the OSD staff would be relieved of their Agency oversight responsibilities and enabled to focus on their policy functions.

This option is summarized in Table 8.

Table 8. Option B: Establish a Defense Support Executive

Create the position of "Defense Support Executive" as an Executive Level 2 position

Have the Defense Support Executive report to the Secretary

- Include the Defense Support Executive in the Secretary's management meetings, such as the Defense Resources Board and the Senior Executive Council
- Secretary delegates responsibility and authority for selected DoD-wide support processes
- Secretary assigns responsibility for the strengthened PPBS review of Agencies

Assign DSE line management authority for DLA, DISA, DSS, DFAS, DLSA, DeCA, and DoDEA*

Assign DSE line management authority for matters relating to designated support functions and processes

Establish incentives to attract a highly qualified business executive

Provide the Defense Support Executive a 25-60-person staff; the staff would assist in goal setting, review, and evaluation

* Note: TMA stays with USD(P&R) pending reorganization decisions; DCAA stays with USD (Comptroller) to provide independent audit; DCMA remains as contract management arm of USD(AT&L); DARPA, BMDO, DTRA stay with USD(A&T) to support DoD-wide initiatives; DSCA stays with USD(P).

These options have been raised and debated by several Administrations over the last two decades; the debates have focused on three main considerations. First, can the Secretary or Deputy Secretary afford the time necessary to make an ongoing commitment of a few hours a month to addressing Agency and support function problems. Such a commitment would be essential under Option A. A Defense Support Executive establishes a top-management executive who can provide sustained focus on these matters, thus relieving the Secretary and Deputy Secretary of that burden. A second, countervailing consideration is the question of whether, as a practical matter, a Defense Support Executive could muster the clout and influence necessary to lead DoD-wide initiatives. If this executive is fully supported by the Secretary, with an occasional engagement as necessary to back-up the DSE's decisions, then the DSE would wield top-management clout. On the other hand, a DSE acting without that authority would become just one more voice among the many that are trying to exercise leadership in setting strategy and policy. Finally, implementation is an important third consideration. Creating

a DSE will, in itself, require considerable top management time and energy, and could delay the beginning of work on the needed initiatives.

D. NEXT STEPS

A central question for the DoD leadership is whether the current assignment of missions to the Defense Agencies is appropriate. We have posed the question in the following way: Does improving support functions require a reassignment of Defense Agency missions? Some Service interviewees have argued that they could get better support if Agency missions were reassigned to the Military Departments. They argue that the economies of scale achieved in consolidating functions in the Agencies have been small, and that any savings are outweighed by the weaknesses in OSD's management of the Agencies. We find that DoD's strategy of consolidating functions in the Agencies under the DMR and DRI has, in fact, contributed significantly to support cost reductions. Our findings also indicate that most of the Agencies perform better than their critics claim. Perhaps most importantly, the kinds of management problems we have identified require stronger DoD-wide leadership. This argues for sustaining the current consolidation of functions within the Agencies. Moreover, none of the Services presents a unified view on whether it would want to take back these functions. We find that functional area experts in the Services, Joint Staff, and combatant commands—those who know and understand support issues—are far more supportive of the Agencies' roles than are the Military Departments' financial and programming communities. On balance, we found no compelling evidence indicating that reassigning missions would lead to improved performance of support functions.

At the same time, we find there is a need to improve DoD-wide leadership and oversight of support functions, as well as a need to strengthen Service and combatant command influence within the existing mission framework. The five management steps described here would improve the performance of DoD support functions, strengthen working relationships between the Agencies and their customers, and yield significant savings.

Some specific next steps include:

- Establish a top-management organization and staff to provide DoD-wide leadership for process improvements.
- Develop a PPBS program review process for addressing the Defense Agencies and support processes. Incorporate Agency Performance Contracts and metrics as a basis for program reviews involving OSD, the Agencies, and the customers of the Agencies.

- Define performance metrics for support processes; incorporate systematic readiness reporting.

- Strengthen and broaden the Performance Contracts to strengthen customer-supplier relationships, provide the basis for program reviews, and incorporate performance metrics and readiness reporting.

- Define high-payoff improvement initiatives, identify the needed investments and organizational challenges, and assist in setting priorities. This work can be based on a survey of support processes and the status of ongoing improvement initiatives.

- Identify strategic competitive sourcing opportunities. A top-management survey should examine broad functional areas to determine areas where private sector partnerships can contribute the most to improving the effectiveness and efficiency of an Agency or support processes.

- Assess alternative Agency pricing practices. Examine the potential to introduce commercial benchmarking and activity-based-costing, and to use appropriated funds to finance readiness-related activities.

I. DEFENSE LOGISTICS AGENCY

I. MISSION

A. Mission, vision, and goals

The Goldwater-Nichols Department of Defense Reorganization Act of 1986 (PL 99-433) designated the Defense Logistics Agency (DLA) as a Combat Support Agency (CSA). As a CSA, DLA functions as an integral part of the military logistics system, and plays a critical role in support of the Military Services' and Unified Commands' ability to meet their title 10 responsibilities.

The scope of DLA's operations includes:

- Integrated consumable item management for over 90 percent of the weapons systems spare parts, 100 percent of bulk fuel and packaged petroleum, 100 percent of clothing, food and medical items, and most of the construction and barriers consumable items.

- Management of the defense distribution storage depots responsible for materiel storage, packaging, kitting, container consolidation and distribution.

- Materiel reuse, transfer, demilitarization, and disposal.

- Logistics information management, including federal cataloging and functional management programs such as the Federal Logistics Information System (FLIS), Central Contractor Registration (CCR), Universal Data Repository (UDR), Logistics Information Network (LINK), and Military Engineering Data Asset Locator System (MEDALS).

- Defense Automatic Addressing System for the receipt, edit, and routing of logistics data, logistics transaction processing, and reporting.

- Management of the National Strategic and Critical Materials Stockpile.

- Management of printing services, copier equipment and document conversion, data warehousing, and on-line document services.

DLA articulates its mission as to "Provide best value logistics support to America's Armed Forces, in peace and war … around the clock, around the world."

DLA's vision is:

- Right Item, Right Time, Right Place, Right Price, Every Time…

- Best Value Solutions for America's Warfighters.

DLA has established the following strategic goals toward realization of its vision:

- Consistently provide responsive, best value supplies and services to our customers.
- Reduce costs – Improve efficiency – Increase effectiveness.
- Ensure our workforce is enabled to deliver and sustain world-class performance.

B. Origins and rationale

1. Origins of integrated supply management

The origins of the DLA date back to World War II where the huge military buildup required the rapid procurement of vast amount of munitions and supplies. Shortages of materials and production capacity motivated the Military Services to coordinate more extensively for the procurement of common items such as petroleum products, medical supplies, clothing, food, and other commodities to avoid competition for the scarce resources and production capabilities. The main procurement offices of the Army and Navy for each commodity were collocated. After the war, the call grew louder for more complete coordination throughout the whole field of logistics – including storage, distribution, transportation, and other aspects of supply. In 1947, there were seven supply systems in the Army, plus an Air Technical Service Command, and 18 systems in the Navy, including the Quartermaster of the Marine Corps.

The passage of the National Security Act of 1947 prompted new efforts to eliminate duplication and overlap among the Military Services in the supply area and laid out the basis for the eventual creation of a single integrated supply agency. The Act created the Munitions Board, which began to reorganize major supply categories into joint procurement agencies. In 1949, the Commission on the Organization of the Executive Branch of the Government (a Presidential Commission headed by former President Herbert Hoover) recommended that the authority of the Secretary of Defense be strengthened so that the Secretary could integrate the organization and procedures of the various phases of supply of the Military Services.

Congress became disenchanted with the Munitions Board's inability to eliminate duplication among the Military Services in the supply area and passed the Defense Cataloging and Standardization Act of 1952, which transferred the Board's functions to a new Defense Supply Management Agency. The Korean War experiences also led to several Congressional investigations of military supply management, and Congress threatened to impose a common supply service on the Military Services, managed from the outside. Integrated management of supplies and services began in 1952 with the establishment of a joint Army-Navy-Air Force Support Center to control the identification of supply items. For the first time the Military Services bought, stored, and issued items using a common nomenclature. The Defense Department and the Military

Services defined the materiel that would be managed on an integrated basis as "consumables," meaning supplies that are not reparable or are consumed in normal use.

Although DoD managed to provide logistic support to the forces fighting in the Korean War under this organizational structure, any successes were, in the words of Secretary of Defense Lovett, "a tribute to the inborn capacity of teamwork in the average American." The Eisenhower Reorganization Plan Number 6 (1953) abolished both the Board and the Agency, replacing them with a single executive, an Assistant Secretary of Defense for Supply and Logistics under the direction of the Secretary of Defense.

The pressure for consolidation continued with the 2nd Hoover Commission in July 1955 recommending centralized management of common military logistics support and introducing uniform financial management practices. It further recommended that a separate and completely civilian-managed agency be created within the Department to administer all military common supply and service activities. The Military Services feared that the proposed agency would be less responsive to military requirements and jeopardize the success of military operations. Congress, however, remained concerned about the Commission's indictment of waste and inefficiencies in the Military Services.

To avoid having Congress taking the matter away from the military completely, DoD reversed its position and proposed the appointment of "single managers" for a selected group of common supply and service activities. Under a DoD Directive, the Secretary of Defense would appoint one of the three Military Department secretaries as single manager for a selected group of commodities or common service logistic activities. The Army managed food and clothing; the Navy managed medical supplies, petroleum, and industrial parts; and the Air Force managed electronic items. Over a six-year period, the single managers reduced item count by 20 percent (about 9,000 items) and inventories by approximately $800 million, or about 30 percent. The single item manager concept was the most significant advance toward an integrated supply management within DoD.

The Defense Cataloging and Standardization Act of 1952 led to the creation of the first Federal Catalog in 1956. This Federal catalog system provided an organized and systematic approach for describing an item of supply, assigning and recording a unique identifying number, and providing information on the item to the system's users[1]. The initial catalog contained about 3.5 million items. It was a rough draft full of duplications and errors, but it effectively highlighted the areas were standardization was feasible and necessary.

[1] This system evolved into the current Federal cataloging system now administered by the DLA Defense Logistics Information Service.

2. The Defense Supply Agency, 1961 - 1977

The successes of these efforts lead to proposals to extend the single manager concept to other commodities; however, it did not provide the uniform procedures recommended by the Hoover Commission. Each single manager operated under the procedures of its parent Service; its customers had to use as many sets of procedures as there were commodity managers. Secretary of Defense Robert McNamara was convinced that the problem required an organizational change. On March 23, 1961 he convened a panel of high-ranking Defense officials, directing them to study alternative plans for improving DoD-wide organization for integrated supply management.[2] The committee highlighted the principal weaknesses of the multiple, single manager supply system, and in 1961, Secretary McNamara ordered that the single manager agencies be consolidated into one common supply and service agency. The Defense Supply Agency (DSA) was established on October 1, 1961, and began operations on January 1, 1962. Eight single-manager agencies became the DSA supply centers. The DSA Director reported directly to the Secretary of Defense. A Defense Supply Council was established to assist the Secretary in directing and controlling the Agency. The subsequent unified operations were estimated to reduce the workforce by 3300 personnel and save more than $30 million per year. The results far exceeded the estimates.

When the Agency began operations, it controlled six commodity-type and two service-type single managers:

- Defense Clothing and Textile Supply Center, Philadelphia, PA
- Defense Construction Supply Center, Columbus, OH
- Defense General Supply Center, Richmond, VA
- Defense Medical Supply Center Brooklyn, NY
- Defense Petroleum Supply Center Washington, DC
- Defense Subsistence Supply Center, Chicago, IL
- Defense Traffic Management Service, Washington, DC
- Defense Logistics Services Center, Washington, DC.

The Agency would also administer the Federal Catalog Program, The Defense Standardization Program, the Defense Utilization Program, and the Surplus Personal Property Disposal Program. In the first six months of operation, the Defense Industrial Supply Center in Philadelphia, PA, the Defense Electronic Supply Center in Dayton, OH, and the Defense Automotive Supply Center in Detroit, MI, came under DSA control. By July 1, 1962, the Agency included 11 field organizations, employed 16,500 people, and managed 45 facilities.

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[2] The task force was designated as Project 100.

The Defense Industrial Plant Equipment Center was established under the Agency in March 1963 to handle storage, repair, and distribution of idle government-owned plant equipment. By June 1963, the DSA was managing over one million different items in nine supply centers. During 1963-64, DSA also acquired Army storage depots at Columbus, OH; Memphis, TN; Ogden, UT; and Tracy, CA; and the Navy Depot at Mechanicsburg, PA. In addition to the depot mission, the agency became responsible for the contract administration services (CAS) for most DoD contracts. The expanded CAS mission significantly altered the shape of the agency with its resources almost evenly divided between supply operations and contract support services.[3]

In 1963, DSA assumed command of the Defense Documentation Center (DDC) for Scientific and Technical Information – subsequently renamed the Defense Technical Information Center (DTIC). In October 1991, DTIC was transferred to the Under Secretary for Defense for Acquisition and Technology, and then transferred to DISA on January 30, 1998.

In 1964, The Defense Fuel Supply Center (DFSC) was designated as the single entity to purchase and manage DoD's bulk petroleum products and coal. On July 1, 1965, the Defense Subsistence Supply Center, the Defense Clothing Supply Center, and the Defense Medical Supply Center were merged to form the Defense Personnel Support Center in Philadelphia, PA.

The Defense Automated Addressing System Center (DAASC) was established in 1965 to serve as the central logistics transaction and data processing activity for the Department of Defense. The creation of DAASC enabled accurate data transmission and routing of standard logistics transactions throughout DoD.

The DSA started with inventory management responsibility for 87,000 items in 1962, and by 1968 had management responsibility for approximately 1,729,000 items. Personnel assigned increased from 16,500 in July 1962 to approximately 33,000 by the end of 1965. Although DSA added additional personnel to handle its increased responsibilities, it started operations with 3,481 fewer personnel than had been required by the Military Departments[4].

Other missions assigned to DSA included:

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[3] During this period, DSA was made responsible for administering most Defense contracts – those awarded both by the DSA and the Services. In 1965, the Department consolidated most of the contract administration sevices (CAS) of the Military Services to avoid duplication of effort and provide uniform procedures for administering contracts. DoD established the Defense Contract Administration Services (DCAS) within the DSA to manage consolidated functions with a savings of approximately 2000 fewer positions than required by the Military Departments. The Military Departments retained CAS functions for major weapons system contracts and the plants producing these systems (see the separate report on the Defense Contract Management Agency).

[4] Appendix G, DLA, page G4, OSD Report; Reassessment of Defense Agencies and DoD Field Activities, October 1987 in response to Goldwater-Nichols DoD Reorganization Act of 1986 (PL 99-433).

- Centralized disposal of government property as recommended by Congress for better accountability. In April of 1972, the Assistant Secretary of Defense (MRA&L) assigned DoD property disposal responsibility to DSA. The Defense Property Disposal Service was established on September 12, 1972 with 1554 fewer personnel than previously assigned to the Military Departments[5]. It was later renamed the Defense Reutilization and Marketing Service (DRMS) on July 1, 1985.

- Worldwide procurement and management of coal and bulk petroleum products, in 1972.

- Worldwide management of food items for troop feeding and in support of defense commissaries, 1973.

Overall savings of 7,000 work years resulted from the transfer of the above major new missions from the Military Departments to DSA[6].

3. The Defense Logistics Agency, 1977 - 1990

Secretary of Defense Harold Brown re-designated the Defense Supply Agency (DSA) organization the Defense Logistics Agency (DLA) on January 1, 1977. Secretary Brown changed the DLA charter on June 1978 to place the Agency under the management, direction, and control of the Assistant Secretary of Defense for Manpower, Reserve Affairs and Logistics in order to reduce the number of direct subordinates. Depot operations were eliminated at the Defense Electronics Supply Center (DESC) in 1979. The Defense Industrial Plant Equipment Center at Memphis, Tennessee was phased out in the late 1980s and responsibility was transferred to the Defense General Supply Center in Richmond, Virginia.

On October 1, 1986 the Goldwater-Nichols Department of Defense Reorganization Act (PL 99-433) identified DLA as a Combat Support Agency and required the nomination of the DLA Director to be approved by the Chairman of the Joint Chiefs of Staff. The Act also directed a study of the functions and organizational structure of DLA and the other Defense Agencies to determine the most effective and economical means of providing required services and supplies to their customers. The Act helped evolve the DLA from a functional focus on inventory management to operational concerns, including materiel readiness and sustainability of the Military Services and the Combatant Commands.

The mounting and widespread concern about poor management and decision-making and inter-Service coordination of the Department caused President Reagan to sign Executive Order 12526, July 15, 1985, establishing a commission to study defense management policies and procedures, including the budget process, the procurement

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[5] Ibid.

[6] Ibid.

system, legislative oversight, and organizational arrangements between the Office of the Secretary of Defense, the JCS, the Unified and Specified Commands, Military Departments, and Congress. The President's Blue Ribbon Commission on Defense Management, also known as the Packard Commission, made significant recommendations in their interim report of April 1986.

The Commission's recommendation of relevance was to streamline acquisition organizations and acquisition procedures. This recommendation subsequently had a major impact on Defense Agencies and future defense reform initiatives as a result of implementing the specific elements under this recommendation, including:

- Substantially reducing the number of acquisition personnel (consolidation of logistics and distribution functions and contract management personnel);

- Increasing use of competition (outsourcing and privatization); and

- Expanding the use of commercial products (privatization and outsourcing).

President Reagan moved quickly to implement many of these recommendations. He signed National Security Decision Directive (NSDD) 219 on April 2, 1986 directing that nearly all of the Commission's recommendations be implemented. He also sent a message to Congress on April 24, 1986 to request legislative changes needed to accomplish defense reorganization management, acquisition reform, and strengthening the role of the Joint Staff and the Chairman.

In July 1988, by virtue of Executive Order 12626 (dated February 1988), DLA assumed responsibility for the Defense National Strategic and Critical Materials Stockpile from the General Services Administration with 90 stockpile storage sites. DLA established the Defense National Stockpile Center as a field activity. About 300 full time equivalents (FTEs) were transferred to DLA from GSA and the Federal Emergency Management Agency (FEMA).

4. Reorganizing for the 1990s

The need for further implementation of the DoD reorganization recommendations resulting from the Packard Commission was outlined in Secretary Richard Cheney's Defense Management Report (DMR) to the President in July, 1989. The report emphasized improving management efficiencies in the Defense Department by "cutting excess infrastructure," eliminating redundant functions, and initiating common business practices. Implementation of the DMR was a highly structured and continuous management improvement process over the period 1990 to 1995, involving the Deputy Secretary of Defense, the Secretaries of Military Departments, and senior members within OSD and other DoD components. In response to the DMR, the Department conducted a comprehensive review of DoD business practices. Implementation of several of the Defense Management Directives significantly increased the Defense Logistics

Agency's missions and functions by assuming Military Services' responsibilities in the areas of consumable item management, depot distribution functions, and virtually all contract administration functions with the exception of contracts covering ammunition plants and shipbuilding. The Defense Management Report Decisions (DMRDs) resulted in the following actions:

- DMRD 902 directed consolidation of the management and operation of all DoD CONUS supply depots under the DLA. Consolidation of the Military Services' supply and distribution depots to a single manager began in October of 1990 and was completed on March 16, 1992. DMRD 902 directed the transfer of 26,000 civilian and 500 military personnel from the Services to DLA. The consolidation eliminated redundant functions and initiated common business practices across all the supply depots, thus reducing supply system cost and increasing the visibility of utilization to system managers throughout DoD. Some examples of savings through consolidation are:

  ♦ The consolidation reduced the projected costs of supply depot operations by 20 percent, or roughly $350 million per year. DoD personnel savings included an immediate reduction of 2,500 personnel billets.

  ♦ Prior to DMRD 902, each Military Service and the DLA managed their supply distribution depots with Service/Agency-unique automatic data processing (ADP) systems, and each maintained separate central design activities. Consolidation of the design activity staffs would reduce required personnel from over 800 to approximately 200 supporting a common system.

  ♦ In FY 91 (baseline), a total of 31,531 civilian and military personnel were assigned to the Military Services and DLA distribution depots. A total of 23,076 were assigned to the depots managed by the Military Services and 8,455 assigned to existing DLA-managed depots. The consolidation was scheduled reduce total personnel by 17,504 by FY 1997.

  ♦ Costs for a transaction (receipt or issue) were much higher in the Services than for DLA The Army was $33.89, the Air Force was $21.36, and the Navy $15.60 per line item. The DLA cost was only $13.10 per line item.

  ♦ The Defense Distribution System consolidated into a single unified materiel distribution system under DLA management consisting of 30 depots, at 32 sites, with 62 storage locations totaling 788 million square feet of storage space. Total operational savings have been estimated to be nearly $1.3B by FY 97. Since the consolidation of the supply and distribution depots, the DLA has reduced the number of supply and distribution depots from 30 to 21 in 1997[7]. The personnel now assigned to the distribution depots is 9,082 in FY 00, for a total reduction of 22,449 personnel since FY 91, or over 70 percent.

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[7] This number has since increased to 24 with the transfer to DLA of OCONUS Service depots in Japan, Hawaii, and Germany.

- DMRD 916 consolidated the preponderance of DoD contract administration services (CAS). [8] DLA established the Defense Contract Management Command in February 1990 and consolidated virtually all of DoD contract administration services at or near contractor's plants under a single organization. The objectives were to streamline CAS operations, promote a uniform procurement policy, and reduce payroll and overhead costs associated with CAS. DoD realized a $422 million savings for FY 1991 to FY 1995. An additional savings of $150 million over the same five-year period was realized through the conversion of military positions to civilians. The consolidation within DLA resulted in a 15 percent savings in management overhead costs and reduced DLA's headquarters by 128 civilians and 12 military spaces. This consolidated into one agency 44 Military Service plant offices, 5,400 personnel, and 100,000 contracts valued at $400 billion. DCMC began operations with about 26,000 civilian personnel. By the time of the designation of DCMC as a separate agency in March 27, 2000, personnel levels had been reduced to 12,500.

- DMRD 926 directed the consolidation of inventory control points (ICPs) of the Military Departments into a single agency for the wholesale management of consumable items. A key objective was to introduce logistic management efficiencies to lower supply systems costs. The DLA now manages nearly 93 percent of the total DoD consumable items.[9] The ICP consolidation involved the transfer of over 980,000 consumable items and associated cataloging tasks from the Military Services to DLA. The Army reduced the number of ICPs from six to two because of the reduced workload. The Air Force reduced from five ICPs to four, and the Navy consolidated its existing four cataloging activities into two ICPs. Consolidations eliminated redundant functions and excess infrastructure, reduced management headquarters functions, and initiated common business processes that reduced operating cost and improved responsiveness. End strength transferring from the Services to DLA from FY 91 to FY 95 was 10,624 positions. DLA assumed responsibility for all of the Military Services' materiel distribution functions beginning in 1990. Programmed recurring savings are estimated to be $292 million per year. Total reduction in personnel was targeted at 4,700 spaces.

- DMRD 910/912 "Consolidation and Improvement of Financial Operations" directed the consolidation of DoD accounting and finance systems and operations under one organization, the Defense Finance and Accounting Service (DFAS). DLA transferred approximately 4,800 personnel to DFAS in the FY 91-92 time period.

- DMRD 918 "Defense Information Infrastructure (DII)" transferred DLA information services and ADP resources to DISA on December 15, 1992. A

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[8] Joint OSD-DoD Component Defense Contract Management Agency Implementation Plan, September 1989 by the DCMA Task Force.

[9] Since the transfer of consumable items under the DMRD, DLA has further consolidated its supply management infrastructure and reduced ICPs from six to four.

total of 3,029 civilian and 22 military positions were transferred from DLA to DISA.

During the period (FY89-92) of implementation of the DMR, consolidations of staffs increased Agency manpower to its peak of approximately 65,500 personnel. During this period, the DLA merged or closed a number of primary field activities.

- Six of nine Defense Contract Management Districts (previously designated Defense Contract Management Regions) were disestablished.

- The Defense Electronic Supply Center was merged with the Defense Construction Supply Center in Columbus, Ohio.

- Four distribution depots – Charleston, SC; Oakland, CA; Tooele, UT; and Ogden, UT – were disestablished.

In 1990, the mission of the Defense Fuel Supply Center (DFSC) was expanded to include the supply and management of natural gas. In 1991, as directed by Program Budget Decision (PBD) 735, DLA expanded its ownership and management responsibilities for bulk petroleum products to include most bulk storage locations.

On August 11, 1992, DLA was directed by the Under Secretary of Defense for Acquisition to establish and maintain a reserve of Ozone Depletion Substances (ODS) to ensure supplies would be available for critical weapons system use due to a cessation of ODS production.

5. The Defense Reform Initiative, FY 1997 to 2001

Section 923 of the National Defense Authorization Act for fiscal year 1997 provided the following direction: *"The Secretary of Defense, in consultation with the Chairman of the Joint Chiefs of Staff, will complete in 1997, a review of the defense program of the United States intended to satisfy the requirements for a Quadrennial Defense Review as identified in the recommendations of the Commission on Roles and Missions of the Armed Forces. The review shall include a comprehensive examination of the defense strategy, force structure, force modernization plans, infrastructure, budget plan and other elements of the defense program and policies with a view toward determining and expressing the defense strategy of the United States and establishing a revised defense program through the year 2005."* The Secretary was required to submit a report of the review covering aspects of the defense program including defense strategy, the force structure needed, threats examined, assumptions, effect of force structure on peace operations and military operations other than war, manpower and sustainment policies, and mobility capabilities needed. The report was also to assess the appropriate ratio of combat forces to support forces and the appropriate size of headquarters units and Defense Agencies for that purpose.

At the close of the Quadrennial Defense Review (QDR) in May of 1997, the Secretary established a task force on Defense Reform to take a closer look at defense

infrastructure, including management headquarters activities, for potential improvements in organizational structure and business practices[10]. The DRI provided a comprehensive approach for the DoD to adopt better business practices, streamline organizational structures and functions, consolidate redundant functions, and reduce excess infrastructure. To implement these changes, the Secretary made a series of decisions to reduce and reorganize DoD management headquarters organizations and functions, beginning with those organizational elements closest to the Secretary of Defense.

Many of the key defense reform initiatives, including defense acquisition reform; financial management reform; travel reengineering; electronic catalogs and commerce; prime vendors for maintenance, repair and operating materials; paper free systems for logistic support; and the use of credit cards for small purchases were to be spearheaded by the management headquarters of Defense Agencies. Key DRI-directed agency mission changes and consolidations then migrated to the DLA.

DRID 19 (January 14, 1998) transferred responsibility for the oversight, control, and management of day-to-day operations of the Defense Property Accountability System (DPAS) from the USD Comptroller to DLA. DPAS provides financial control and generates information to account for most of the government owned property, plant, and equipment under the DoD. On March 26, 2001, this function transferred from DLA to a newly created office reporting to the USD (Acquisition, Technology, and Logistics).

- DRID 21 and 49 in 1998 established the Defense Energy Support Center (DESC) and expanded the mission of the former DFSC to include the consolidation of the Department's regional energy efforts of total energy management and the privatization of utility related infrastructure. DESC was tasked to build an energy program aimed at moving the Department out of the management of energy infrastructure and into the management of energy products. DESC is also responsible for ensuring that DoD capitalizes on state efforts to deregulate electricity utilities.

- DRID 43 on May 20, 1998 established the Joint Electronic Commerce Program Office (JECPO). JECPO was formed by consolidating the resources of DISA, DLA, and other DoD components involved in related functions. The DRID also transferred resources and non-policy functions of the Assistant Deputy Under Secretary of Defense for Logistics and Materiel, Business Systems and Technology Development and the Director, Life Cycle Information Office to DLA consistent with section 8061 of the FY 98 DoD Appropriations Act. DRID 48 directed the adoption of commercial electronic

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[10] The Secretary of Defense in his annual report to the President for 1998 stated, *"As a result of the QDR, the Department's plans and programs were changed to carry out this strategy. And as a result of the Defense Reform Initiative, undertaken as follow-on to the QDR, the Department's organizational structure and business practices also are being changed to reflect and carry out this strategy."* The Defense Reform Initiative (DRI) report issued in November of 1997 is the strategic blueprint for the Department, and is intended to reduce the Department's overhead and apply the resultant savings to modernization and quality of life requirements.

data interchange (EDI) standards for DoD logistics business transactions; DLA was assigned as the executive agency of the Joint Electronic Commerce Office (JECPO).

Other missions assigned to DLA since 1997 include:

- Executive agency for the Joint Total Asset Visibility Program was transferred from the Army to DLA by the Acting Deputy Under Secretary of Defense for Logistics on April 24, 1998.

- Automated Identification Technology Program on January 5, 1998.

- Logistics Community Manager (the successor to the Joint Logistics System Center (JLSC)).

- Warehousing, cataloging, and distribution of maps and other geodesic information previously provided by the National Imagery and Mapping Agency (NIMA). A total of 115 civilian FTEs and 35 military positions were transferred from NIMA to DLA.

- Critical Infrastructure Protection planning and oversight responsibility for DoD's entire logistics infrastructure.

- The transfer of the Defense Printing Service – now known as the Document Automation and Production Service (DAPS) – from the Navy to the DLA on October 1, 1996. A total of 6,415 civilian FTEs were transferred to the DLA during the period covering FY 98 to FY 01. Since the transfer, DAPS business regions have been reduced from 8 to 4, and printing service facilities have been reduced from 350 to 297.

- DLA has assumed responsibility for all DoD central cataloging functions in FY 1997. Approximately 700 personnel have been transferred from the Services to DLA by FY 2001.

6. The Mission – in summation

Department of Defense Directive 5105.22 (dated December 6, 1988) established the current DLA charter. It assigns DLA specific responsibilities to maintain a wholesale distribution system for assigned items and to accomplish all materiel management functions to ensure responsive support to the logistic needs of the Military Departments and commanders of the Combatant Commands, including the following: item management classification; cataloging; requirements determination; supply control; procurement; quality assurance; industrial responsiveness and mobilization planning; receipt, storage, inventory accountability and distribution control; transportation; maintenance and manufacture; shelf-life control; provisioning; technical logistics data and information; engineering support; value engineering; standardization; reutilization and marketing; management of the Strategic Reserves and National Stockpile Program; and other related logistic functions. Over the intervening years, DLA has substantially

expanded beyond the logistics and contract administration missions prescribed in its charter by assuming additional responsibilities from the Military Services and the Office of the Secretary of Defense.

On March 27, 2000 the Defense Contract Management Command was chartered as the Defense Contract Management Agency (DCMA). Total DLA personnel were reduced by about 12,500 with the creation of the DCMA.

Figure 1 provides a summarization of the history of mission changes for DLA along with employment levels at key points in time.

C. Functions, products, resources, and customers

As described in the preceding sections, DLA provides a wide array of products and logistics services to the Joint Commanders and the Military Services. Other customers include other federal departments and agencies, allied and friendly military forces, state and local government entities, and charitable and humanitarian assistance organizations.

DLA's principal business areas are financed via the Defense Working Capital Fund (DWCF). On the other hand, most of DLA's Executive Agent responsibilities are financed via appropriated funds. About 96 percent of DLA's annual operating costs are financed via the DWCF.

Figure 1. DLA Workforce and Mission History

Table 1 summarizes DLA's FY 01 resources for its principal business areas.

Table 1. DLA Business Areas and Resources

Business Area	DWCF Funding (FY01 $ in Billions)	Workforce (FY 01 FTEs in 000s)
Materiel Management	13.8	10.8
Non-Energy	9.8	10.1
Energy	4.0	0.7
Distribution	1.3	10.3
Materiel Disposition [i.e., DRMS]	0.3	2.1
Document Publishing [i.e., DAPS]	0.4	1.6

NOTE: 'Logistics Information Services' [i.e., DAASC and DLIS] is resourced within the 'Materiel Management' business area.

A portion of DRMS' operating costs, and all of DNSC's operating costs, are financed via sales of excess materiel to the private sector. In fact, DNSC sales since 1993 have returned $1.5 billion to the Services' readiness accounts via cash transfers.

D. Interview results

The salient themes from interviewing stakeholder and customer surrogates are:

- DLA's role today far exceeds what was envisioned for it 10 to 15 years ago. It must now be an integral part of sustainment. DLA's role now starts at day one of a crisis, not at day 60 as before. DLA thus must be an active participant in the development of solutions for integrating support.

- No Service or CINC questioned the need for someone within DoD to be providing each of services provided by DLA.

- No Service expressed an interest in the return of any of DLA's missions or functions.

- From the perspective of the OSD PSA, there is a need to define what the logistics enterprise model for DLA should be. DLA today is the result of many transfers of functions from the Services and OSD. A unifying logic is missing.

E. Assessment and issues

Mission Expansion. DLA's mission and scope of activities have evolved over time for three distinct reasons. First, and most prevalent, is the desire by OSD to consolidate common functions being performed by all the Services. The second reason is the need to accommodate OSD's desire to pursue Defense-wide initiatives that require an Executive Agent. The third is DLA's response to the needs of its customers. The latter two types of occurrences have been determined by a series of opportunistic transfers and entrepreneurial initiatives. While such flexibility is advantageous in many ways, it does raise questions about how well the changes serve DoD's long-term strategic needs. Is there adequate high-level deliberation when changes are made? Is there a rich Departmental vision of what kind of DLA is needed in the future? Two examples of DLA's changes are noted here, the accretion of non-core programs, and the expansion of supply toward Service retail levels.

A number of programs transferred to DLA result from reorganizations in OSD. Examples include: Joint Electronic Commerce Program (JECP), Defense Standardization Program (DSP), and the Defense Property Accountability System (DPAS). Others were established by OSD at DLA from the beginning, such as Logistics Community Management (LCM), and Logistics Automatic Identification Technology (AIT). While these programs are housed at DLA, they address end-to-end issues that go beyond the services DLA itself provides. DLA is one among many interested parties and has limited control over program activities. Should these activities be housed elsewhere so that

DLA's managers are not distracted from core missions? Similar questions should be raised about housing the Document Automation and Production Service (DAPS) and the Defense National Stockpile Center (DNSC) at DLA.

Recently, at the request of the Military Services, DLA has been expanding its supply and distribution activities beyond the responsibilities assigned by OSD. For example, DLA recently assumed ownership of two overseas distribution depots from the Navy. Further, DLA has been proactively positioning DLA-owned and -financed inventories closer to its Service customers. In other words, DLA is placing DLA-owned inventories at Service facilities or on-board supply ships. This positioning enables Service activities to reduce their own requirements for, and investment in, retail inventories. These initiatives are customer-oriented and may point the way toward DoD's future end-to-end logistics system. Has the department determined that that is the right system? Alternatively, should DLA be assigned greater responsibility for end-to-end logistics planning and program implementation? Further, DLA has had difficulty meeting goals for supply availability and enabling the Services' weapons system readiness targets, in part because its financial resources are limited. Is it in the overall interest of the department if additional commitments to some customers indirectly degrade service to others?

II. PERFORMANCE

A. Metrics

As described previously in the "Mission" section, DLA is 'doing more' with fewer people. Figure 1 (above) shows the trend over the past 38 years in DLA manning and missions. Manpower has declined 64 percent since its peak in 1992, in spite of numerous new missions being added. In fact, even after taking into account the early 1990s transfers of DLA personnel to DISA and DFAS, and the recent creation of DCMA, DLA is now the smallest it has been since 1963.

DLA has been aggressively 'right sizing' its infrastructure (see Figure 2). This reduced footprint translates into reduced operating costs. Other salient metrics of DLA's recent performance are:

- Logistics Response Time (order to receipt) for DLA-managed items has dropped from an average of 42 days in FY 95 to less than 12 days in FY 00.
- The ratio of the cost of DLA operations to the cost of the materials handled was cut to 15.8 percent in FY00, down from 21 percent in FY 99.
- DLA's major petroleum product acquisition price in FY 00 was less than comparable measures for commercial products.

CSART 2000 (the Combat Support Agency Review Team report), released by the Chairman to the Secretary of Defense on January 12, 2001, states that: "DLA has

significantly improved its support to the warfighting community since the last assessment." During its review, the CSART identified several DLA accomplishments since CSART 1998 that have resulted in significantly improved support to the operational forces. Examples include:

- DLA is proactive in supporting customer requirements, especially with respect to crisis and contingency support.

- Overall, the Unified Commands are satisfied with DLA's efforts in reducing logistics response time for their Service components. USEUCOM and USPACOM praised DLA efforts to increase the forward positioning of critical items in their AORs.

- DLA is to be praised for its significant progress in developing and implementing a customer communications program.

Figure 2

DLA's Infrastructure... Sizing for the Future

	1992	1997	2000	2005
Supply Centers	6	5	4	4
Distribution Regions	3	2	0	0
Distribution Depots (CONUS/OCONUS)	28	21	24	22**
DRMOs (CONUS/OCONUS)	170/43	127/26	75/27	68/24**
Stockpile Storage Sites	90	79	55	17
HQ Activities:DRMS HQ Elements	6	4	2	2
Defense Contract Management Command				
District Offices	6	3	3	
Contract Administrative Offices	123	75	70	
Document Automation & Production Service				
DAPS Business Regions	8	5	4	2
DAPS Facilities	350	248	297	256

Driving Down Our Operating Cost By Reducing Our Footprint!

**Subject to A-76

Figure 2. DLA Infrastructure

IDA contacted the Unified Commands to ascertain their perspective on the appropriateness of DLA's mission and DLA's performance and responsiveness. Table 2 summarizes the results; the table incorporates the questions asked by the CSART 2000 and additional questions about DLA's performance posed by IDA.

Table 2. Unified Combatant Command Responses

DLA support to the CINCs	Unified Combatant Command
Does the DLA support ongoing operations?	The following CINCs replied that DLA had supported ongoing operations in the last two years – USCENTCOM, USEUCOM, USJFCOM, USPACOM, USSOCOM, USSOUTHCOM, USTRANSCOM
Does DLA have assigned missions in the CINCs' OPLANS?	All the above CINCs with the exception of USSOCOM have included DLA in their OPLANs
Has DLA been asked to provide plans in support of CINC OPLANS, CONPLANS, TEP, etc.?	EUCOM and PACOM stated that they have requested DLA to provide support plans. Several others will ask for them or are considering that DLA provide them.
Does DLA participate in exercises?	USCENTCOM, USEUCOM, USJFCOM, USPACOM, USSOCOM, USSOUTHCOM and USTRANSCOM stated that DLA did participate in exercises and in several of the CINCs the level of involvement has gone up considerably.
What products and services are critical to the CINCs' peacetime engagement, deliberate and contingency planning, and wartime operations?	The CINCs identified many of DLA's business areas as important to their mission areas. Supply and materiel management support of class I, II, III, IV, VI, VIII, and IX were identified as critical sustainment needs. The management of bulk fuels suppliers for ship bunker fuel and aviation fuels and storage points was identified as especially critical to a number of CINCs. DLA services such as hazardous waste removal, identification of excess equipment and supplies for FMS/EDA, depot consolidation and shipping services, in-transit visibility (e.g. AIT), FEDLOG, electronic mall, prime vendor, and other technical and logistic advice and support were identified as important to the CINCs.
What kind of peacetime, contingency, and wartime support is expected from DLA?	CINCs expect DLA for the most part to perform as an integral part of the warfighting team. The CINCs singled out the DLA contingency support teams in the theater to provide support for FMS/EDA, removal of hazardous and excess materiel, supply and materiel management support, and to be an active partner in deliberate planning.

DLA support to the CINCs (cont)	Unified Combatant Command (cont)
How well does DLA satisfy your requirements?	All the CINCs stated that they were satisfied with DLA's performance in support of their peacetime and contingency missions. Several CINCs felt that DLA was very responsive; highly efficient, and did an excellent job in supporting their ongoing operations. SOCOM expressed some concern regarding the coding of items that were transferred from the Services to DLA and that their forecasting models (for inventory management and restocking) needed to be more responsive to customer requirements. Also, there was concern that there is no DLA representative assigned to the combatant command. Significant DLA deficiencies in the supply of chemical warfare protective suits, medical stocks, war reserve materiel for 2-MTWs, and an inadequate en route POL infrastructure to support a logistics air bridge for 2-MTWs are continuing concerns which need to be addressed.
What opportunities exist to improve DLA's ability to meet your operational needs?	Several CINCs would like to see an increased forward presence of DLA Contingency Support Team (DCSTs), DRMOs, and depot storage facilities; as well as improved warfighter interface, including OPLAN supply reviews and confidence that DLA can support their wartime mission. The CINCs identified a number of improvements regarding the need for improved visibility of materiel moving into the theater, and improvement in their automated information system tools for asset visibility. DLA needs to continue to educate the customer about its ongoing initiatives to provide improved customer service. Customers in the field are often unaware of the full potential of service support that DLA can provide. Prime vendor contracts have demonstrated some successes. However, there is still some concern whether they can meet "surge" requirements for a 2-MTW scenario.

The results of the 1999 Biennial Review of Defense Agencies conducted by the Office of the Secretary of Defense showed that customer satisfaction for DLA ranged from a low of 74 percent for Materiel Management to a high of 95 percent for the

Defense Automatic Addressing System. The overall results showed "very strong support for DLA to continue offering its products and services." The Biennial Review also concluded that, overall, customers are satisfied with the effectiveness, efficiency, and economy of DLA's products and services, although pockets of customer dissatisfaction with "specific aspects of service" were revealed.

DLA's FY 01 performance contract with the Defense Management Council (DMC) includes 27 performance targets. A review of these metrics indicates that 25 of the 27 address matters related to efficiency and peacetime effectiveness. Only one metric directly addresses wartime effectiveness, namely, the target for petroleum war reserves. Further, only one metric has an apparent connection to innovation to support Joint Vision 2020: development of an automatic process to route orders. Since DLA is a Combat Support Agency with a critical wartime role, more emphasis on combat-related metrics seems appropriate.

The key contractual measures for peacetime effectiveness are the traditional metrics for aggregate supply availability and logistics response time. These measures are so gross that they are not reliable indicators of how well DLA is serving its customers. For that purpose, what matters is availability and response time for particular items and locations. For future performance contracts, DLA is considering a more detailed supply availability metric tied to specific Service Level A, B, and C weapons system availability goals. DLA is also participating in the DoD-wide development of end-to-end customer wait time (CWT) metrics for future use.

B. Interview results

The salient themes are:

- DLA has done an excellent job restructuring itself in areas such as clothing, textiles, fuel, medicine, and food. It is generally very responsive in these areas.

- In general, DLA is doing a good job, but must improve its capability to provide timely support of readiness-constraining weapons system critical parts. It is improving and has shown a desire to do better. This applies both to the leadership and the work force.

- DLA has demonstrated an increased willingness to tailor its service to what the customer needs. This trend seems to be top-down within DLA, driven by the Director.

- The Services stated that they needed to do a much better job of timely sharing of information with DLA in order for DLA to successfully fulfill the Service's responsiveness expectations.

C. Assessment and issues

Readiness-Constraining Supply Support. A recurring theme encountered by the team was dissatisfaction with DLA's Class IX Repair Parts performance. Troops get frustrated when they can't get the parts they need to accomplish their assigned missions. Furthermore, readiness suffers. However, there is no awareness within the Military Services' field structure, and scant recognition even at the headquarters level, of the cause[s] of this problem.

DLA's Obligational Authority (OA) is based on an aggregate Supply Materiel Availability (SMA) rate of 85 percent. In other words, DLA's fiscal resources are based on the premise that only 85 percent of all requisitions received would need to be immediately filled from available stocks. This approach is a holdover from DoD's historic philosophy of providing supply support via regionally located retail stocks backed up by centrally managed wholesale inventories. The Services are eliminating retail stocks and relying on DLA for direct support to operating forces and maintenance depot production lines. Thus, when DLA doesn't fill a requisition, a weapon system is inoperable or a maintenance line is halted. This adversely affects materiel readiness.

DLA's stockage models were designed to maximize the number of items that are in stock with available funding authority. This approach favors less expensive, high demand items. In the wake of the transfer of weapon system-unique consumable items to DLA, and the trend toward eliminating retail stocks, DLA has taken steps to stratify its inventory projections to better meet weapon system readiness goals. However, this approach requires investment in relatively expensive, low demand safety stocks.

During 1999, there was growing concern about DLA's inability to achieve for aviation items the overall SMA goal of 85 percent, and the contribution of this situation to the continuing decline in aircraft Mission Capable rates. This led to a POM 01 program issue that resulted in PDM direction for DLA to increase the purchase of aviation spares by $500 million over a four-year period. The PDM also directed OSD Comptroller to provide sufficient additional DWCF OA to permit DLA to make the requisite spares purchases. A less cumbersome process is sorely needed for granting DLA the OA it needs to capitalize readiness enhancing stocks in a timely manner.

III. MANAGEMENT

A. Governance structure

DLA is under the day-to-day operational direction and control of the Deputy Under Secretary of Defense for Logistics and Materiel Readiness (DUSD(L&MR)) and the overall supervision of the Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)). As DLA is a Combat Support Agency, it also operates under the direction and oversight of the Chairman of the Joint Chiefs of Staff for certain

matters. Additionally, elements of DLA receive direct guidance and oversight for selected assigned responsibilities from numerous other officials both within AT&L and elsewhere in OSD.

DLA operates within the general policy framework provided by the various DoD Directives, Instructions, and Regulations related to Logistics. Specific performance priorities are documented in the DoD Logistics Strategic Plan and DLA's annual Performance Contract with the Defense Management Council. DLA has translated the goals and objectives in these documents into a DLA Strategic Plan known as "DLA 21."

DLA has instituted periodic Performance Management Reviews (PMRs) to provide timely feedback on performance related to the goals and objectives in DLA 21 and the Performance Contract. PMR currently addresses four categories of performance: Customer Metrics, Operational Metrics, Financials, and Training and Workforce Development. DLA's Director and Executive Staff conduct PMRs on a quarterly basis.

Additionally, the Director utilizes "Please See Me" sessions (PSMs) to 'drill down' into causes and remedies for metrics that are 'out of tolerance.' PSMs also are used to keep abreast of agency actions to resolve significant customer dissatisfaction situations.

B. Customer relations

DLA is a member of the Joint Logistics Commanders (JLC) and a participant in the Conference of Logistics Directors (COLD). With representation from each Service's materiel command and all Service headquarters logistics staffs, the JLC provides an outstanding forum for the Services to identify their key logistics issues to DLA. COLD serves as an valuable venue for exchange of information with the Unified Command logistics staffs, and the development of new joint initiatives to improve logistics support to the warfighter. Additionally, DLA provides a forum for the management of its customers to express their views on issues and initiatives by hosting events such as DLA/Army Day, DLA/CINCs Day, etc., several times each year.

DLA operates a Customer Support Network of call centers accessible by a single toll free line (1-877-CALL-DLA) to ensure customers are never more than a phone call away from knowledgeable technical assistance. Additionally, DLA has a world-wide network of Customer Service Representatives (CSRs) collocated with all major "customers." This face-to-face presence enables continual awareness of customers' concerns/problems/issues, and provides a direct conduit for pursuing resolution.

DLA has been conducting a robust program of regular mailed customer surveys since 1994. These mailed questionnaires are supplemented by periodic focus groups and telephone 'panel surveys.' The program has proven quite useful in identifying where

customers perceive performance deficiencies so that DLA can target its improvement efforts.

As a Combat Support Agency, DLA has the following features aimed at ensuring seamless transition from peacetime to contingency/wartime support:

- DLA has established field headquarters organizations – known as DLA-Europe and DLA-Pacific – to oversee and coordinate the activities of all DLA personnel located within these theaters. These organizations are collocated with the Theater CINCs (the DPAC Commander is forward positioned at Taegu, Korea).

- Liaison Officers (LNOs) are assigned to the Joint Staff and to each Unified Command. These LNOs facilitate DLA's participation in deliberate planning, joint training exercises, humanitarian assistance/contingency operations, etc.

- Based on lessons learned from Operation Desert Shield/Storm, DLA developed the DLA Contingency Support Team (DCST) concept. DCSTs are tailorable force elements that can rapidly deploy in support of a Theater or Joint Task Force commander for wartime, contingency, or humanitarian relief missions. A DCST consists of liaison officers and representatives from the materiel, distribution, and fuels management communities, plus disposal, reutilization, and marketing specialists.

C. Pricing practices and initiatives

DLA's pricing practice varies by Business Area. Table 3 presents an explanation of pricing techniques for representative DLA Business Areas.

DLA's Director has established guidance that Customer Prices must stay within the bounds established in the Program Objective Memorandum (POM), and meet the Performance Contract deliverable. The primary source of pressure on DLA prices is the reaction to its rates by the Military Services, and the corresponding threat of losing customer business. These factors drive DLA to control costs and provide the best value (price and service) to their customers.

DLA efforts to meet the CPC challenge by controlling, but preferably lowering, its operating costs are described in a later section. DLA also continually evaluates its pricing methodologies to comply with the requirement to fully recover costs while endeavoring to employ best business accounting practices. Some examples are:

- Storage billing based on cubic feet of warehouse space occupied was adopted in FY 99 in order to give DLA's customers visibility of the space occupied by their materiel and associated costs. This mirrors commercial practice.

- Net Landed Cost (NLC) will become the basis for distribution processing (i.e., receipts and issues) beginning in FY 02. This will replace a flat charge with a fee structure, which reflects the 'value added' of services required/requested.

- Transaction Activity Billing (TAB), which goes into effect in FY 02, will permit Service-level billing for DRMS services to be based on actual workload for eight different types of services.

Table 3. Defense Working Capital Fund
Defense Logistics Agency – Selected Business Areas

Business Area	Pricing Method	Funding and Buying Decisions	Comments
Distribution – Warehousing	cubic feet of occupied storage per time period; rates based on type of storage; e.g., outside, refrigerated, bulk, bin, etc.	paid by Service and federal agency ICPs and Project Managers from working capital or appropriated funds, as relevant	customer of this Service gets the bill
Distribution – Shipment	per transaction (i.e., shipment); rates based on weight and cube, materiel characteristics (e.g., bulk, hazardous, etc.) , and mode of shipment (e.g., surface or air)	paid by Service and federal agency ICPs and Project Managers from appropriated or working capital funds, as relevant	customer (i.e., the organization being shipped to) does not 'see' the cost of shipment mode implicit in the priority assigned by the customer to the order
Materiel Management	per item; rates based on cost of goods sold plus 'surcharge' covering cost of operations (surcharges differ among commodities)	paid by customer (i.e., organization ordering the items) from O&M (for operating units) or DWCF (for maintenance depots)	price paid by customer contains costs unrelated to the cost of providing the items ordered
Logistics Information Services	pro rata share of total operating costs	paid at Service and DLA headquarters-level from O&M (for Services) and DWCF (for DLA); pro ration based on distribution of previous year's transactions	DLA's share is rebilled to the ICPs for inclusion in their surcharges
Printing and Publishing	per transaction; rates based on length and complexity of document and mode (e.g., paper, CD, etc.)	paid by customer (i.e., organization ordering the items) from O&M or WCF, as relevant	customer prices reflect service requested by the customer

DLA also employs 'Price Comparability' in an attempt to extract readiness-related (i.e., "must-have-for-war-even-if-not-used-in-peacetime") costs from its rate structure, thus enabling customers to better compare DLA's prices with those of other sources. Costs that a commercial firm would not incur are identified and budgeted for via the Operations and Maintenance appropriation. Examples of such costs include storing war reserve material, and procuring and storing ozone-depleting substances. DLA is pursuing the addition of DLA's share of the Defense Transportation System's over-ocean transportation costs, DRMS demilitarization costs, and the costs of readiness/contingency IT requirements.

D. Business practice initiatives

DLA continues to be proactive in implementing the principles of acquisition reform, business process reengineering, outsourcing and privatization, and the use of emerging technology to reduce costs while maintaining the highest level of support to the warfighter. Salient examples follow.

1. Materiel Management Business Area

DLA has adopted a <u>Weapon System Management</u> approach. DLA has replaced its six commodity-oriented Inventory Control Points with three 'lead centers' – Richmond for Aviation Support, Columbus for Maritime and Ground Systems Support, and Philadelphia for Troop and General Support. A network of Weapon System Support Managers (WSSMs) and Weapon System Points of Contact (WSPOCs) interacts with a variety of Service contacts to maintain weapon and troop support readiness metrics, and recommend investment and acquisition strategies that enhance weapon and troop support.

<u>Prime Vendor (PV)</u> is the reliance on commercial distribution channels to deliver typically commercial products directly to DoD customers. DLA pioneered the PV approach to providing logistics support with the establishment of a medical supplies prototype in 1993. DLA extended the concept to other commodities with the creation of PV arrangements for pharmaceuticals and medical/surgical products; subsistence; food service equipment; materials used in the maintenance, operation, and repair of facilities, wood products, metal products, and fire fighting supplies.

<u>Virtual Prime Vendor (VPV)</u> extends the PV concept by contracting for the combined supply management and distribution to the customer of a mix of commercial and military-unique items having similar manufacturing or distribution characteristics.

VPV applications include: clothing and textiles support to recruit training centers, benchstock support to maintenance depots, automotive parts support for tracked and wheeled vehicles, and the recently awarded C-5 aircraft parts support contract.

One of the key features of successful commercial enterprise is the formation of 'strategic relationships' whereby the 'total ownership cost' of providing an array of items

is minimized while satisfying customer expectations. DLA is pursuing <u>Strategic Supplier Alliances (SSA)</u> with those sole source suppliers that produce a wide variety of military-unique items. The innovation in these long-term, corporate contracting arrangements is that they would include item demand-unique acquisition strategies; e.g., separate pricing structures for Catalog, Replenishment, and Rapid Response/Build to Order items.

2. Distribution business area

<u>Dedicated Truck</u> is used by DLA to routinely provide Time Definite Delivery to DLA's major customers. This 'customer-specific' traffic management concept, coupled with DLA's strategic Stock Positioning strategy, enables customers to attain readiness objectives and hold down costs by enabling them to reduce retail stocks and optimize the use of the local logistics workforce.

<u>Premium Service</u> allows materiel managers to position items typically weighing less than 150 pounds in a contractor-owned and -operated facility for expedited delivery worldwide. Overnight delivery in the CONUS and two-day delivery to overseas airports serviced by FedEx is guaranteed. The 'premium' distribution cost charged permits offsetting savings by enabling reliance on reduced inventories.

<u>Depot Consolidation.</u> Now that DSS – the Distribution Standard System – is fully operational, DLA can rationalize the utilization of closely located facilities that they inherited from the Services under DMRD 902. DLA has reconfigured the Tracy and Sharpe sites at Defense Depot San Joaquin, CA and the New Cumberland and Mechanicsburg sites at Defense Depot Susquehanna, PA. This consolidation of fast-moving, high-demand items at the highly automated sites and the slow-moving, low-demand items at the more antiquated sites will yield an annual reduction of over $30M.

<u>Competitive Sourcing</u> is being pursued at DLA CONUS distribution depots. Four depot competitions have been completed to date (the private sector won three). Competitions under way at another five depots are scheduled for completion this fiscal year. Competitions for the remaining depots are programmed for the out years.

<u>Strategic Distribution Management Initiative (SDMI)</u> is a partnership between DLA and USTRANSCOM to measure and improve the overall effectiveness and design of DoD's global supply chain. DLA's primary focus is on Stockage Management policies and practices that will reduce Customer Wait Time and ensure Time Definite Delivery.

3. Materiel disposition business area

<u>Commercial Venture</u> partnerships are being developed with private sector firms to handle the sales of selected commodity classes and scrap. These promise to reduce operating costs and to increase sales revenue through innovative marketing techniques.

Infrastructure Consolidation. DRMS' vision is to "move information, not property." This concept replaces physical consolidation of excess property in DRMS-operated storage facilities with a Web-based approach to locating customers. This approach has permitted DRMS to reduce the number of DRMOs far in excess of those that became surplus due to base closures. DRMS has further consolidated complex, specialized (and thus costly) functions, such as demilitarization, surveillance, and performance (by contractors) oversight, to a handful of DRMOs.

DRMS is also using Competitive Sourcing as a means of ascertaining the best value provider of logistics support services. The competition for the Northeast region has been concluded (the private sector won); competitions for remaining regions are scheduled to commence later this year.

E. Personnel management initiatives

DLA has been in a continual downsizing mode since 1993. Like many federal agencies, DLA relied extensively on incentivizing voluntary retirements and separations, coupled with constrained recruiting, to achieve its workforce reduction targets. This has led to shortages that are slight now, but projected to become severe in a number of critical skills. DLA has thus created a Corporate Intern Program, which is projected to grow to 350 per year.

DLA employs military personnel in command and key staff positions throughout its worldwide operations in order to ensure a 'warfighter focus' and to facilitate customer relations. DLA currently has 582 military personnel; of these, only 98 are occupying Joint Duty billets. DLA cannot obtain the numbers and quality of military personnel it needs to ensure that it can effectively perform its mission. Current fill rates by Service are, in percentage:

Army	60
Navy	100
Marine Corps	80
Air Force	70

DLA may be unique among Defense Agencies in that it has Reserve Component elements. Currently, 575 reservists are authorized. The bulk of these are earmarked for assignment to DLA Contingency Support Teams (DCSTs), which deploy with combat forces to assist in providing DLA's component of combat support services to the warfighter. In addition to training for their 'wartime' jobs, DLA's reservists also generate Peacetime Contributory Support by using their military and civilian skills and experience on special assignments associated with fulfilling DLA 'peacetime' missions.

DLA

F. Interview results

The salient themes from interviewing stakeholder and customer surrogates are:

- DLA management, the OSD PSA, and most of the Service representatives stated that the annual Performance Contract with the DMC was of no value to them. This is primarily due to the extremely high level of aggregation for the metrics in the Performance Contract. DLA and the Services consider bilateral (often site-specific) Service Level Agreements (SLAs) the preferred means for conveying performance expectations.

- There is inadequate high-level, deliberate external oversight of DLA. Both DLA management and the OSD PSA stated that a 'board of directors' representing customers is needed to set long-term goals, provide strategic direction, and guide the agency. Without such a body, there is no way to connect the 'performance expectations' of DLA's customers with the resources and authority provided by OSD to DLA.

G. Assessment and issues

Pricing Distortions. The DWCF prices that determine customer bills for DLA services are distorted. They do not always reflect the costs of the service provided. As a result, customers act on misleading signals, sometimes buying from other sources even when DLA's true costs are lower, sometimes buying from DLA but reimbursing only part of the costs incurred by DLA. Both cases may adversely impact readiness and total costs to the government.

A major cause of the distortions is that the prices charged for materiel supplied by DLA are used to recover costs related to readiness or to other activities, often based on direction from OSD. While DLA's Price Comparability initiative aims to defray selected readiness costs through appropriated funding, the dollars available are minimal, much less than one percent of overall DWCF costs. Further, this initiative does not address the substantial readiness-related costs of holding safety level stocks that could not be justified based on economic demand models alone. Another recent example is the recovery of the FY 01 costs of DLA's DRMS business area through the supply management prices. Inclusion of such unrelated costs raises the surcharges (over the cost of the goods provided) that DLA uses to recover its costs of operations, sometimes causing customers to seek out cheaper sources of supply. Competing for the Services' business can pressure DLA to improve its performance, but such competition should be based on prices that reflect whatever cost advantages DLA achieves. With distorted prices, customers may be driven away needlessly, with a potential loss of DLA buying power, supplier relationships, and visibility into Service requirements.

The lumping of peacetime and readiness-related costs in DWCF prices has a particularly pernicious effect on DLA's capability to stock slow-moving, readiness-related inventories. Stocking such items ties up DWCF funds that could otherwise be

used to maintain availability of high-demand items. Further, slow-moving items tie up warehouse space and may carry a higher risk of obsolescence and wastage. Today's DWCF prices do not convey to customers the true costs of stocking such items. DLA recovers its costs only through higher prices and reduced availability for high-demand items. Differentiating prices for high-demand and slow-moving items in the future could provide DLA with more revenue to meet readiness requirements without impacting other users.

Enterprise Integration. The Focused Logistics pillar of Joint Vision 2020 envisions replacement of the 'iron mountain' (i.e., large stockpiles of materiel) approach classically used by DoD for supporting forces in theater, with rapid, time-definite delivery of materiel from out-of-theater (commercial and government) sources. The key to making this concept work is Supply Chain Integration. In other words, the management of the supply chain from vendor to user must be integrated from end-to-end.

Currently retail-level materiel management, wholesale-level materiel management, and depot-level repair are managed as essentially stand-alone processes. Each of these processes relies on separate transactional IT systems, most using decades-old technology. The designation of DLA in the early 1990s as the single manager for consumable items and the single manager for distribution (i.e., warehousing and shipment of end items, reparable components, and consumable items) greatly expanded the number of IT systems that need to directly interface. Additionally, because these processes are each financed via Working Capital Funds, each of the supporting IT systems must interface with DFAS.

The Services and DLA have embarked on efforts to modernize their logistics processes and supporting IT systems. When queried about interface mechanisms among relevant efforts to ultimately ensure compatibility of processes and interoperability of systems, the answers typically were 'not sure' or 'just getting started.'

DLA and several of the Services are pursuing modified COTS enterprise resource planning (ERP) solutions for their modernized logistics IT environments. These ERPs come with financial modules; but permission to plan on using these modules rather than passing data to DFAS has not been forthcoming.

It would appear that some mechanism is needed for ensuring that the Service and DLA process reengineering/IT modernization efforts are compatible. Additionally, OSD needs to 'step into the breach' and develop a cohesive strategy for the modernization of financial and functional processes and IT systems.

IV. CANDIDATE QDR ISSUES

Global Distribution. The Dominant Maneuver cornerstone of Joint Vision 2020 (JV 2020) requires force deployment times that are an order of magnitude faster than

what was achieved in Desert Storm. Focused Logistics – the reliance on rapid distribution rather than large in-theater stockpiles –requires that 'sustainment' shipment be concurrent with force deployment. These considerations, combined with the goal of appropriate Customer Wait Time (CWT) and Time Definite Delivery (TDD) as the Measures of Effectiveness for DoD's logistics system, require a distribution system that can function seamlessly in peace and wartime.

The current DoD Supply Chain is an uncoordinated mix of inventory locations and distribution modes. TRANSCOM and DLA have initiated a partnership, known as the Strategic Distribution Management Initiative (SDMI), to find ways to synchronize their respective processes in order to improve distribution system performance. However, SDMI has its limitations. Neither party is willing to undertake process changes that will increase it own operating costs. Only a decision authority that can put the best interests of DoD as a whole to the fore can overcome this frailty.

More importantly, key providers of elements of the overall distribution process are not participants. For example, in-theater distribution is the responsibility of each of the CINCs (typically carried out by one of the Component Commands as executive agent); yet, with the exception of EUCOM (a recent additional participant), the Unified Commands are not SDMI participants. The Army, as the Single Manager for Conventional Ammunition (SCMA), is a major player in the CONUS leg of the distribution process, but not part of SDMI. Additionally each of the Services, as the managers of reparable end items and components, must be parties to any effort to institute a 'truly seamless' distribution process.

OSD needs to commission an effort to address the need for a seamless worldwide distribution system that functions effectively under both peacetime and wartime conditions. This effort should identify options for near-term and longer-term procedural, organizational, and IT systems changes. A bold initiative championed by top-level management will greatly improve the likelihood that defense distribution can someday fulfill the objectives of JV 2020.

I. DEFENSE LOGISTICS AGENCY

I. MISSION

A. Mission, vision, and goals

The Goldwater-Nichols Department of Defense Reorganization Act of 1986 (PL 99-433) designated the Defense Logistics Agency (DLA) as a Combat Support Agency (CSA). As a CSA, DLA functions as an integral part of the military logistics system, and plays a critical role in support of the Military Services' and Unified Commands' ability to meet their title 10 responsibilities.

The scope of DLA's operations includes:

- Integrated consumable item management for over 90 percent of the weapons systems spare parts, 100 percent of bulk fuel and packaged petroleum, 100 percent of clothing, food and medical items, and most of the construction and barriers consumable items.

- Management of the defense distribution storage depots responsible for materiel storage, packaging, kitting, container consolidation and distribution.

- Materiel reuse, transfer, demilitarization, and disposal.

- Logistics information management, including federal cataloging and functional management programs such as the Federal Logistics Information System (FLIS), Central Contractor Registration (CCR), Universal Data Repository (UDR), Logistics Information Network (LINK), and Military Engineering Data Asset Locator System (MEDALS).

- Defense Automatic Addressing System for the receipt, edit, and routing of logistics data, logistics transaction processing, and reporting.

- Management of the National Strategic and Critical Materials Stockpile.

- Management of printing services, copier equipment and document conversion, data warehousing, and on-line document services.

DLA articulates its mission as to "Provide best value logistics support to America's Armed Forces, in peace and war ... around the clock, around the world."

DLA's vision is:

- Right Item, Right Time, Right Place, Right Price, Every Time...

- Best Value Solutions for America's Warfighters.

DLA has established the following strategic goals toward realization of its vision:

- Consistently provide responsive, best value supplies and services to our customers.
- Reduce costs – Improve efficiency – Increase effectiveness.
- Ensure our workforce is enabled to deliver and sustain world-class performance.

B. Origins and rationale

1. Origins of integrated supply management

The origins of the DLA date back to World War II where the huge military buildup required the rapid procurement of vast amount of munitions and supplies. Shortages of materials and production capacity motivated the Military Services to coordinate more extensively for the procurement of common items such as petroleum products, medical supplies, clothing, food, and other commodities to avoid competition for the scarce resources and production capabilities. The main procurement offices of the Army and Navy for each commodity were collocated. After the war, the call grew louder for more complete coordination throughout the whole field of logistics – including storage, distribution, transportation, and other aspects of supply. In 1947, there were seven supply systems in the Army, plus an Air Technical Service Command, and 18 systems in the Navy, including the Quartermaster of the Marine Corps.

The passage of the National Security Act of 1947 prompted new efforts to eliminate duplication and overlap among the Military Services in the supply area and laid out the basis for the eventual creation of a single integrated supply agency. The Act created the Munitions Board, which began to reorganize major supply categories into joint procurement agencies. In 1949, the Commission on the Organization of the Executive Branch of the Government (a Presidential Commission headed by former President Herbert Hoover) recommended that the authority of the Secretary of Defense be strengthened so that the Secretary could integrate the organization and procedures of the various phases of supply of the Military Services.

Congress became disenchanted with the Munitions Board's inability to eliminate duplication among the Military Services in the supply area and passed the Defense Cataloging and Standardization Act of 1952, which transferred the Board's functions to a new Defense Supply Management Agency. The Korean War experiences also led to several Congressional investigations of military supply management, and Congress threatened to impose a common supply service on the Military Services, managed from the outside. Integrated management of supplies and services began in 1952 with the establishment of a joint Army-Navy-Air Force Support Center to control the identification of supply items. For the first time the Military Services bought, stored, and issued items using a common nomenclature. The Defense Department and the Military

Services defined the materiel that would be managed on an integrated basis as "consumables," meaning supplies that are not reparable or are consumed in normal use.

Although DoD managed to provide logistic support to the forces fighting in the Korean War under this organizational structure, any successes were, in the words of Secretary of Defense Lovett, "a tribute to the inborn capacity of teamwork in the average American." The Eisenhower Reorganization Plan Number 6 (1953) abolished both the Board and the Agency, replacing them with a single executive, an Assistant Secretary of Defense for Supply and Logistics under the direction of the Secretary of Defense.

The pressure for consolidation continued with the 2nd Hoover Commission in July 1955 recommending centralized management of common military logistics support and introducing uniform financial management practices. It further recommended that a separate and completely civilian-managed agency be created within the Department to administer all military common supply and service activities. The Military Services feared that the proposed agency would be less responsive to military requirements and jeopardize the success of military operations. Congress, however, remained concerned about the Commission's indictment of waste and inefficiencies in the Military Services.

To avoid having Congress taking the matter away from the military completely, DoD reversed its position and proposed the appointment of "single managers" for a selected group of common supply and service activities. Under a DoD Directive, the Secretary of Defense would appoint one of the three Military Department secretaries as single manager for a selected group of commodities or common service logistic activities. The Army managed food and clothing; the Navy managed medical supplies, petroleum, and industrial parts; and the Air Force managed electronic items. Over a six-year period, the single managers reduced item count by 20 percent (about 9,000 items) and inventories by approximately $800 million, or about 30 percent. The single item manager concept was the most significant advance toward an integrated supply management within DoD.

The Defense Cataloging and Standardization Act of 1952 led to the creation of the first Federal Catalog in 1956. This Federal catalog system provided an organized and systematic approach for describing an item of supply, assigning and recording a unique identifying number, and providing information on the item to the system's users[1]. The initial catalog contained about 3.5 million items. It was a rough draft full of duplications and errors, but it effectively highlighted the areas were standardization was feasible and necessary.

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[1] This system evolved into the current Federal cataloging system now administered by the DLA Defense Logistics Information Service.

2. The Defense Supply Agency, 1961 - 1977

The successes of these efforts lead to proposals to extend the single manager concept to other commodities; however, it did not provide the uniform procedures recommended by the Hoover Commission. Each single manager operated under the procedures of its parent Service; its customers had to use as many sets of procedures as there were commodity managers. Secretary of Defense Robert McNamara was convinced that the problem required an organizational change. On March 23, 1961 he convened a panel of high-ranking Defense officials, directing them to study alternative plans for improving DoD-wide organization for integrated supply management.[2] The committee highlighted the principal weaknesses of the multiple, single manager supply system, and in 1961, Secretary McNamara ordered that the single manager agencies be consolidated into one common supply and service agency. The Defense Supply Agency (DSA) was established on October 1, 1961, and began operations on January 1, 1962. Eight single-manager agencies became the DSA supply centers. The DSA Director reported directly to the Secretary of Defense. A Defense Supply Council was established to assist the Secretary in directing and controlling the Agency. The subsequent unified operations were estimated to reduce the workforce by 3300 personnel and save more than $30 million per year. The results far exceeded the estimates.

When the Agency began operations, it controlled six commodity-type and two service-type single managers:

- Defense Clothing and Textile Supply Center, Philadelphia, PA
- Defense Construction Supply Center, Columbus, OH
- Defense General Supply Center, Richmond, VA
- Defense Medical Supply Center Brooklyn, NY
- Defense Petroleum Supply Center Washington, DC
- Defense Subsistence Supply Center, Chicago, IL
- Defense Traffic Management Service, Washington, DC
- Defense Logistics Services Center, Washington, DC.

The Agency would also administer the Federal Catalog Program, The Defense Standardization Program, the Defense Utilization Program, and the Surplus Personal Property Disposal Program. In the first six months of operation, the Defense Industrial Supply Center in Philadelphia, PA, the Defense Electronic Supply Center in Dayton, OH, and the Defense Automotive Supply Center in Detroit, MI, came under DSA control. By July 1, 1962, the Agency included 11 field organizations, employed 16,500 people, and managed 45 facilities.

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[2] The task force was designated as Project 100.

The Defense Industrial Plant Equipment Center was established under the Agency in March 1963 to handle storage, repair, and distribution of idle government-owned plant equipment. By June 1963, the DSA was managing over one million different items in nine supply centers. During 1963-64, DSA also acquired Army storage depots at Columbus, OH; Memphis, TN; Ogden, UT; and Tracy, CA; and the Navy Depot at Mechanicsburg, PA. In addition to the depot mission, the agency became responsible for the contract administration services (CAS) for most DoD contracts. The expanded CAS mission significantly altered the shape of the agency with its resources almost evenly divided between supply operations and contract support services.[3]

In 1963, DSA assumed command of the Defense Documentation Center (DDC) for Scientific and Technical Information – subsequently renamed the Defense Technical Information Center (DTIC). In October 1991, DTIC was transferred to the Under Secretary for Defense for Acquisition and Technology, and then transferred to DISA on January 30, 1998.

In 1964, The Defense Fuel Supply Center (DFSC) was designated as the single entity to purchase and manage DoD's bulk petroleum products and coal. On July 1, 1965, the Defense Subsistence Supply Center, the Defense Clothing Supply Center, and the Defense Medical Supply Center were merged to form the Defense Personnel Support Center in Philadelphia, PA.

The Defense Automated Addressing System Center (DAASC) was established in 1965 to serve as the central logistics transaction and data processing activity for the Department of Defense. The creation of DAASC enabled accurate data transmission and routing of standard logistics transactions throughout DoD.

The DSA started with inventory management responsibility for 87,000 items in 1962, and by 1968 had management responsibility for approximately 1,729,000 items. Personnel assigned increased from 16,500 in July 1962 to approximately 33,000 by the end of 1965. Although DSA added additional personnel to handle its increased responsibilities, it started operations with 3,481 fewer personnel than had been required by the Military Departments[4].

Other missions assigned to DSA included:

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[3] During this period, DSA was made responsible for administering most Defense contracts – those awarded both by the DSA and the Services. In 1965, the Department consolidated most of the contract administration sevices (CAS) of the Military Services to avoid duplication of effort and provide uniform procedures for administering contracts. DoD established the Defense Contract Administration Services (DCAS) within the DSA to manage consolidated functions with a savings of approximately 2000 fewer positions than required by the Military Departments. The Military Departments retained CAS functions for major weapons system contracts and the plants producing these systems (see the separate report on the Defense Contract Management Agency).

[4] Appendix G, DLA, page G4, OSD Report; Reassessment of Defense Agencies and DoD Field Activities, October 1987 in response to Goldwater-Nichols DoD Reorganization Act of 1986 (PL 99-433).

- Centralized disposal of government property as recommended by Congress for better accountability. In April of 1972, the Assistant Secretary of Defense (MRA&L) assigned DoD property disposal responsibility to DSA. The Defense Property Disposal Service was established on September 12, 1972 with 1554 fewer personnel than previously assigned to the Military Departments[5]. It was later renamed the Defense Reutilization and Marketing Service (DRMS) on July 1, 1985.

- Worldwide procurement and management of coal and bulk petroleum products, in 1972.

- Worldwide management of food items for troop feeding and in support of defense commissaries, 1973.

Overall savings of 7,000 work years resulted from the transfer of the above major new missions from the Military Departments to DSA[6].

3. The Defense Logistics Agency, 1977 - 1990

Secretary of Defense Harold Brown re-designated the Defense Supply Agency (DSA) organization the Defense Logistics Agency (DLA) on January 1, 1977. Secretary Brown changed the DLA charter on June 1978 to place the Agency under the management, direction, and control of the Assistant Secretary of Defense for Manpower, Reserve Affairs and Logistics in order to reduce the number of direct subordinates. Depot operations were eliminated at the Defense Electronics Supply Center (DESC) in 1979. The Defense Industrial Plant Equipment Center at Memphis, Tennessee was phased out in the late 1980s and responsibility was transferred to the Defense General Supply Center in Richmond, Virginia.

On October 1, 1986 the Goldwater-Nichols Department of Defense Reorganization Act (PL 99-433) identified DLA as a Combat Support Agency and required the nomination of the DLA Director to be approved by the Chairman of the Joint Chiefs of Staff. The Act also directed a study of the functions and organizational structure of DLA and the other Defense Agencies to determine the most effective and economical means of providing required services and supplies to their customers. The Act helped evolve the DLA from a functional focus on inventory management to operational concerns, including materiel readiness and sustainability of the Military Services and the Combatant Commands.

The mounting and widespread concern about poor management and decision-making and inter-Service coordination of the Department caused President Reagan to sign Executive Order 12526, July 15, 1985, establishing a commission to study defense management policies and procedures, including the budget process, the procurement

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[5] Ibid.

[6] Ibid.

system, legislative oversight, and organizational arrangements between the Office of the Secretary of Defense, the JCS, the Unified and Specified Commands, Military Departments, and Congress. The President's Blue Ribbon Commission on Defense Management, also known as the Packard Commission, made significant recommendations in their interim report of April 1986.

The Commission's recommendation of relevance was to streamline acquisition organizations and acquisition procedures. This recommendation subsequently had a major impact on Defense Agencies and future defense reform initiatives as a result of implementing the specific elements under this recommendation, including:

- Substantially reducing the number of acquisition personnel (consolidation of logistics and distribution functions and contract management personnel);

- Increasing use of competition (outsourcing and privatization); and

- Expanding the use of commercial products (privatization and outsourcing).

President Reagan moved quickly to implement many of these recommendations. He signed National Security Decision Directive (NSDD) 219 on April 2, 1986 directing that nearly all of the Commission's recommendations be implemented. He also sent a message to Congress on April 24, 1986 to request legislative changes needed to accomplish defense reorganization management, acquisition reform, and strengthening the role of the Joint Staff and the Chairman.

In July 1988, by virtue of Executive Order 12626 (dated February 1988), DLA assumed responsibility for the Defense National Strategic and Critical Materials Stockpile from the General Services Administration with 90 stockpile storage sites. DLA established the Defense National Stockpile Center as a field activity. About 300 full time equivalents (FTEs) were transferred to DLA from GSA and the Federal Emergency Management Agency (FEMA).

4. Reorganizing for the 1990s

The need for further implementation of the DoD reorganization recommendations resulting from the Packard Commission was outlined in Secretary Richard Cheney's Defense Management Report (DMR) to the President in July, 1989. The report emphasized improving management efficiencies in the Defense Department by "cutting excess infrastructure," eliminating redundant functions, and initiating common business practices. Implementation of the DMR was a highly structured and continuous management improvement process over the period 1990 to 1995, involving the Deputy Secretary of Defense, the Secretaries of Military Departments, and senior members within OSD and other DoD components. In response to the DMR, the Department conducted a comprehensive review of DoD business practices. Implementation of several of the Defense Management Directives significantly increased the Defense Logistics

Agency's missions and functions by assuming Military Services' responsibilities in the areas of consumable item management, depot distribution functions, and virtually all contract administration functions with the exception of contracts covering ammunition plants and shipbuilding. The Defense Management Report Decisions (DMRDs) resulted in the following actions:

- DMRD 902 directed consolidation of the management and operation of all DoD CONUS supply depots under the DLA. Consolidation of the Military Services' supply and distribution depots to a single manager began in October of 1990 and was completed on March 16, 1992. DMRD 902 directed the transfer of 26,000 civilian and 500 military personnel from the Services to DLA. The consolidation eliminated redundant functions and initiated common business practices across all the supply depots, thus reducing supply system cost and increasing the visibility of utilization to system managers throughout DoD. Some examples of savings through consolidation are:

  - The consolidation reduced the projected costs of supply depot operations by 20 percent, or roughly $350 million per year. DoD personnel savings included an immediate reduction of 2,500 personnel billets.

  - Prior to DMRD 902, each Military Service and the DLA managed their supply distribution depots with Service/Agency-unique automatic data processing (ADP) systems, and each maintained separate central design activities. Consolidation of the design activity staffs would reduce required personnel from over 800 to approximately 200 supporting a common system.

  - In FY 91 (baseline), a total of 31,531 civilian and military personnel were assigned to the Military Services and DLA distribution depots. A total of 23,076 were assigned to the depots managed by the Military Services and 8,455 assigned to existing DLA-managed depots. The consolidation was scheduled reduce total personnel by 17,504 by FY 1997.

  - Costs for a transaction (receipt or issue) were much higher in the Services than for DLA The Army was $33.89, the Air Force was $21.36, and the Navy $15.60 per line item. The DLA cost was only $13.10 per line item.

  - The Defense Distribution System consolidated into a single unified materiel distribution system under DLA management consisting of 30 depots, at 32 sites, with 62 storage locations totaling 788 million square feet of storage space. Total operational savings have been estimated to be nearly $1.3B by FY 97. Since the consolidation of the supply and distribution depots, the DLA has reduced the number of supply and distribution depots from 30 to 21 in 1997[7]. The personnel now assigned to the distribution depots is 9,082 in FY 00, for a total reduction of 22,449 personnel since FY 91, or over 70 percent.

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[7] This number has since increased to 24 with the transfer to DLA of OCONUS Service depots in Japan, Hawaii, and Germany.

- DMRD 916 consolidated the preponderance of DoD contract administration services (CAS). [8] DLA established the Defense Contract Management Command in February 1990 and consolidated virtually all of DoD contract administration services at or near contractor's plants under a single organization. The objectives were to streamline CAS operations, promote a uniform procurement policy, and reduce payroll and overhead costs associated with CAS. DoD realized a $422 million savings for FY 1991 to FY 1995. An additional savings of $150 million over the same five-year period was realized through the conversion of military positions to civilians. The consolidation within DLA resulted in a 15 percent savings in management overhead costs and reduced DLA's headquarters by 128 civilians and 12 military spaces. This consolidated into one agency 44 Military Service plant offices, 5,400 personnel, and 100,000 contracts valued at $400 billion. DCMC began operations with about 26,000 civilian personnel. By the time of the designation of DCMC as a separate agency in March 27, 2000, personnel levels had been reduced to 12,500.

- DMRD 926 directed the consolidation of inventory control points (ICPs) of the Military Departments into a single agency for the wholesale management of consumable items. A key objective was to introduce logistic management efficiencies to lower supply systems costs. The DLA now manages nearly 93 percent of the total DoD consumable items.[9] The ICP consolidation involved the transfer of over 980,000 consumable items and associated cataloging tasks from the Military Services to DLA. The Army reduced the number of ICPs from six to two because of the reduced workload. The Air Force reduced from five ICPs to four, and the Navy consolidated its existing four cataloging activities into two ICPs. Consolidations eliminated redundant functions and excess infrastructure, reduced management headquarters functions, and initiated common business processes that reduced operating cost and improved responsiveness. End strength transferring from the Services to DLA from FY 91 to FY 95 was 10,624 positions. DLA assumed responsibility for all of the Military Services' materiel distribution functions beginning in 1990. Programmed recurring savings are estimated to be $292 million per year. Total reduction in personnel was targeted at 4,700 spaces.

- DMRD 910/912 "Consolidation and Improvement of Financial Operations" directed the consolidation of DoD accounting and finance systems and operations under one organization, the Defense Finance and Accounting Service (DFAS). DLA transferred approximately 4,800 personnel to DFAS in the FY 91-92 time period.

- DMRD 918 "Defense Information Infrastructure (DII)" transferred DLA information services and ADP resources to DISA on December 15, 1992. A

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[8] Joint OSD-DoD Component Defense Contract Management Agency Implementation Plan, September 1989 by the DCMA Task Force.

[9] Since the transfer of consumable items under the DMRD, DLA has further consolidated its supply management infrastructure and reduced ICPs from six to four.

total of 3,029 civilian and 22 military positions were transferred from DLA to DISA.

During the period (FY89-92) of implementation of the DMR, consolidations of staffs increased Agency manpower to its peak of approximately 65,500 personnel. During this period, the DLA merged or closed a number of primary field activities.

- Six of nine Defense Contract Management Districts (previously designated Defense Contract Management Regions) were disestablished.

- The Defense Electronic Supply Center was merged with the Defense Construction Supply Center in Columbus, Ohio.

- Four distribution depots – Charleston, SC; Oakland, CA; Tooele, UT; and Ogden, UT – were disestablished.

In 1990, the mission of the Defense Fuel Supply Center (DFSC) was expanded to include the supply and management of natural gas. In 1991, as directed by Program Budget Decision (PBD) 735, DLA expanded its ownership and management responsibilities for bulk petroleum products to include most bulk storage locations.

On August 11, 1992, DLA was directed by the Under Secretary of Defense for Acquisition to establish and maintain a reserve of Ozone Depletion Substances (ODS) to ensure supplies would be available for critical weapons system use due to a cessation of ODS production.

5. The Defense Reform Initiative, FY 1997 to 2001

Section 923 of the National Defense Authorization Act for fiscal year 1997 provided the following direction: *"The Secretary of Defense, in consultation with the Chairman of the Joint Chiefs of Staff, will complete in 1997, a review of the defense program of the United States intended to satisfy the* requirements *for a Quadrennial Defense Review as identified in the recommendations of the Commission on Roles and Missions of the Armed Forces. The review shall include a comprehensive examination of the defense strategy, force structure, force modernization plans, infrastructure, budget plan and other elements of the defense program and policies with a view toward determining and expressing the defense strategy of the United States and establishing a revised defense program through the year 2005."* The Secretary was required to submit a report of the review covering aspects of the defense program including defense strategy, the force structure needed, threats examined, assumptions, effect of force structure on peace operations and military operations other than war, manpower and sustainment policies, and mobility capabilities needed. The report was also to assess the appropriate ratio of combat forces to support forces and the appropriate size of headquarters units and Defense Agencies for that purpose.

At the close of the Quadrennial Defense Review (QDR) in May of 1997, the Secretary established a task force on Defense Reform to take a closer look at defense

infrastructure, including management headquarters activities, for potential improvements in organizational structure and business practices[10]. The DRI provided a comprehensive approach for the DoD to adopt better business practices, streamline organizational structures and functions, consolidate redundant functions, and reduce excess infrastructure. To implement these changes, the Secretary made a series of decisions to reduce and reorganize DoD management headquarters organizations and functions, beginning with those organizational elements closest to the Secretary of Defense.

Many of the key defense reform initiatives, including defense acquisition reform; financial management reform; travel reengineering; electronic catalogs and commerce; prime vendors for maintenance, repair and operating materials; paper free systems for logistic support; and the use of credit cards for small purchases were to be spearheaded by the management headquarters of Defense Agencies. Key DRI-directed agency mission changes and consolidations then migrated to the DLA.

DRID 19 (January 14, 1998) transferred responsibility for the oversight, control, and management of day-to-day operations of the Defense Property Accountability System (DPAS) from the USD Comptroller to DLA. DPAS provides financial control and generates information to account for most of the government owned property, plant, and equipment under the DoD. On March 26, 2001, this function transferred from DLA to a newly created office reporting to the USD (Acquisition, Technology, and Logistics).

- DRID 21 and 49 in 1998 established the Defense Energy Support Center (DESC) and expanded the mission of the former DFSC to include the consolidation of the Department's regional energy efforts of total energy management and the privatization of utility related infrastructure. DESC was tasked to build an energy program aimed at moving the Department out of the management of energy infrastructure and into the management of energy products. DESC is also responsible for ensuring that DoD capitalizes on state efforts to deregulate electricity utilities.

- DRID 43 on May 20, 1998 established the Joint Electronic Commerce Program Office (JECPO). JECPO was formed by consolidating the resources of DISA, DLA, and other DoD components involved in related functions. The DRID also transferred resources and non-policy functions of the Assistant Deputy Under Secretary of Defense for Logistics and Materiel, Business Systems and Technology Development and the Director, Life Cycle Information Office to DLA consistent with section 8061 of the FY 98 DoD Appropriations Act. DRID 48 directed the adoption of commercial electronic

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[10] The Secretary of Defense in his annual report to the President for 1998 stated, *"As a result of the QDR, the Department's plans and programs were changed to carry out this strategy. And as a result of the Defense Reform Initiative, undertaken as follow-on to the QDR, the Department's organizational structure and business practices also are being changed to reflect and carry out this strategy."* The Defense Reform Initiative (DRI) report issued in November of 1997 is the strategic blueprint for the Department, and is intended to reduce the Department's overhead and apply the resultant savings to modernization and quality of life requirements.

data interchange (EDI) standards for DoD logistics business transactions; DLA was assigned as the executive agency of the Joint Electronic Commerce Office (JECPO).

Other missions assigned to DLA since 1997 include:

- Executive agency for the Joint Total Asset Visibility Program was transferred from the Army to DLA by the Acting Deputy Under Secretary of Defense for Logistics on April 24, 1998.

- Automated Identification Technology Program on January 5, 1998.

- Logistics Community Manager (the successor to the Joint Logistics System Center (JLSC)).

- Warehousing, cataloging, and distribution of maps and other geodesic information previously provided by the National Imagery and Mapping Agency (NIMA). A total of 115 civilian FTEs and 35 military positions were transferred from NIMA to DLA.

- Critical Infrastructure Protection planning and oversight responsibility for DoD's entire logistics infrastructure.

- The transfer of the Defense Printing Service – now known as the Document Automation and Production Service (DAPS) – from the Navy to the DLA on October 1, 1996. A total of 6,415 civilian FTEs were transferred to the DLA during the period covering FY 98 to FY 01. Since the transfer, DAPS business regions have been reduced from 8 to 4, and printing service facilities have been reduced from 350 to 297.

- DLA has assumed responsibility for all DoD central cataloging functions in FY 1997. Approximately 700 personnel have been transferred from the Services to DLA by FY 2001.

6. The Mission – in summation

Department of Defense Directive 5105.22 (dated December 6, 1988) established the current DLA charter. It assigns DLA specific responsibilities to maintain a wholesale distribution system for assigned items and to accomplish all materiel management functions to ensure responsive support to the logistic needs of the Military Departments and commanders of the Combatant Commands, including the following: item management classification; cataloging; requirements determination; supply control; procurement; quality assurance; industrial responsiveness and mobilization planning; receipt, storage, inventory accountability and distribution control; transportation; maintenance and manufacture; shelf-life control; provisioning; technical logistics data and information; engineering support; value engineering; standardization; reutilization and marketing; management of the Strategic Reserves and National Stockpile Program; and other related logistic functions. Over the intervening years, DLA has substantially

expanded beyond the logistics and contract administration missions prescribed in its charter by assuming additional responsibilities from the Military Services and the Office of the Secretary of Defense.

On March 27, 2000 the Defense Contract Management Command was chartered as the Defense Contract Management Agency (DCMA). Total DLA personnel were reduced by about 12,500 with the creation of the DCMA.

Figure 1 provides a summarization of the history of mission changes for DLA along with employment levels at key points in time.

C. Functions, products, resources, and customers

As described in the preceding sections, DLA provides a wide array of products and logistics services to the Joint Commanders and the Military Services. Other customers include other federal departments and agencies, allied and friendly military forces, state and local government entities, and charitable and humanitarian assistance organizations.

DLA's principal business areas are financed via the Defense Working Capital Fund (DWCF). On the other hand, most of DLA's Executive Agent responsibilities are financed via appropriated funds. About 96 percent of DLA's annual operating costs are financed via the DWCF.

Figure 1. DLA Workforce and Mission History

Table 1 summarizes DLA's FY 01 resources for its principal business areas.

Table 1. DLA Business Areas and Resources

Business Area	DWCF Funding (FY01 $ in Billions)	Workforce (FY 01 FTEs in 000s)
Materiel Management	13.8	10.8
Non-Energy	9.8	10.1
Energy	4.0	0.7
Distribution	1.3	10.3
Materiel Disposition [i.e., DRMS]	0.3	2.1
Document Publishing [i.e., DAPS]	0.4	1.6

NOTE: 'Logistics Information Services' [i.e., DAASC and DLIS] is resourced within the 'Materiel Management' business area.

A portion of DRMS' operating costs, and all of DNSC's operating costs, are financed via sales of excess materiel to the private sector. In fact, DNSC sales since 1993 have returned $1.5 billion to the Services' readiness accounts via cash transfers.

D. Interview results

The salient themes from interviewing stakeholder and customer surrogates are:

- DLA's role today far exceeds what was envisioned for it 10 to 15 years ago. It must now be an integral part of sustainment. DLA's role now starts at day one of a crisis, not at day 60 as before. DLA thus must be an active participant in the development of solutions for integrating support.

- No Service or CINC questioned the need for someone within DoD to be providing each of services provided by DLA.

- No Service expressed an interest in the return of any of DLA's missions or functions.

- From the perspective of the OSD PSA, there is a need to define what the logistics enterprise model for DLA should be. DLA today is the result of many transfers of functions from the Services and OSD. A unifying logic is missing.

E. Assessment and issues

Mission Expansion. DLA's mission and scope of activities have evolved over time for three distinct reasons. First, and most prevalent, is the desire by OSD to consolidate common functions being performed by all the Services. The second reason is the need to accommodate OSD's desire to pursue Defense-wide initiatives that require an Executive Agent. The third is DLA's response to the needs of its customers. The latter two types of occurrences have been determined by a series of opportunistic transfers and entrepreneurial initiatives. While such flexibility is advantageous in many ways, it does raise questions about how well the changes serve DoD's long-term strategic needs. Is there adequate high-level deliberation when changes are made? Is there a rich Departmental vision of what kind of DLA is needed in the future? Two examples of DLA's changes are noted here, the accretion of non-core programs, and the expansion of supply toward Service retail levels.

A number of programs transferred to DLA result from reorganizations in OSD. Examples include: Joint Electronic Commerce Program (JECP), Defense Standardization Program (DSP), and the Defense Property Accountability System (DPAS). Others were established by OSD at DLA from the beginning, such as Logistics Community Management (LCM), and Logistics Automatic Identification Technology (AIT). While these programs are housed at DLA, they address end-to-end issues that go beyond the services DLA itself provides. DLA is one among many interested parties and has limited control over program activities. Should these activities be housed elsewhere so that

DLA's managers are not distracted from core missions? Similar questions should be raised about housing the Document Automation and Production Service (DAPS) and the Defense National Stockpile Center (DNSC) at DLA.

Recently, at the request of the Military Services, DLA has been expanding its supply and distribution activities beyond the responsibilities assigned by OSD. For example, DLA recently assumed ownership of two overseas distribution depots from the Navy. Further, DLA has been proactively positioning DLA-owned and -financed inventories closer to its Service customers. In other words, DLA is placing DLA-owned inventories at Service facilities or on-board supply ships. This positioning enables Service activities to reduce their own requirements for, and investment in, retail inventories. These initiatives are customer-oriented and may point the way toward DoD's future end-to-end logistics system. Has the department determined that that is the right system? Alternatively, should DLA be assigned greater responsibility for end-to-end logistics planning and program implementation? Further, DLA has had difficulty meeting goals for supply availability and enabling the Services' weapons system readiness targets, in part because its financial resources are limited. Is it in the overall interest of the department if additional commitments to some customers indirectly degrade service to others?

II. PERFORMANCE

A. Metrics

As described previously in the "Mission" section, DLA is 'doing more' with fewer people. Figure 1 (above) shows the trend over the past 38 years in DLA manning and missions. Manpower has declined 64 percent since its peak in 1992, in spite of numerous new missions being added. In fact, even after taking into account the early 1990s transfers of DLA personnel to DISA and DFAS, and the recent creation of DCMA, DLA is now the smallest it has been since 1963.

DLA has been aggressively 'right sizing' its infrastructure (see Figure 2). This reduced footprint translates into reduced operating costs. Other salient metrics of DLA's recent performance are:

- Logistics Response Time (order to receipt) for DLA-managed items has dropped from an average of 42 days in FY 95 to less than 12 days in FY 00.

- The ratio of the cost of DLA operations to the cost of the materials handled was cut to 15.8 percent in FY00, down from 21 percent in FY 99.

- DLA's major petroleum product acquisition price in FY 00 was less than comparable measures for commercial products.

CSART 2000 (the Combat Support Agency Review Team report), released by the Chairman to the Secretary of Defense on January 12, 2001, states that: "DLA has

significantly improved its support to the warfighting community since the last assessment." During its review, the CSART identified several DLA accomplishments since CSART 1998 that have resulted in significantly improved support to the operational forces. Examples include:

- DLA is proactive in supporting customer requirements, especially with respect to crisis and contingency support.

- Overall, the Unified Commands are satisfied with DLA's efforts in reducing logistics response time for their Service components. USEUCOM and USPACOM praised DLA efforts to increase the forward positioning of critical items in their AORs.

- DLA is to be praised for its significant progress in developing and implementing a customer communications program.

Figure 2

DLA's Infrastructure... Sizing for the Future

	1992	1997	2000	2005
Supply Centers	6	5	4	4
Distribution Regions	3	2	0	0
Distribution Depots (CONUS/OCONUS)	28	21	24	22**
DRMOs (CONUS/OCONUS)	170/43	127/26	75/27	68/24**
Stockpile Storage Sites	90	79	55	17
HQ Activities:DRMS HQ Elements	6	4	2	2
Defense Contract Management Command District Offices	6	3	3	
Contract Administrative Offices	123	75	70	
Document Automation & Production Service DAPS Business Regions	8	5	4	2
DAPS Facilities	350	248	297	256

Driving Down Our Operating Cost By Reducing Our Footprint!

**Subject to A-76

Figure 2. DLA Infrastructure

IDA contacted the Unified Commands to ascertain their perspective on the appropriateness of DLA's mission and DLA's performance and responsiveness. Table 2 summarizes the results; the table incorporates the questions asked by the CSART 2000 and additional questions about DLA's performance posed by IDA.

DLA

Table 2. Unified Combatant Command Responses

DLA support to the CINCs	Unified Combatant Command
Does the DLA support ongoing operations?	The following CINCs replied that DLA had supported ongoing operations in the last two years – USCENTCOM, USEUCOM, USJFCOM, USPACOM, USSOCOM, USSOUTHCOM, USTRANSCOM
Does DLA have assigned missions in the CINCs' OPLANS?	All the above CINCs with the exception of USSOCOM have included DLA in their OPLANs
Has DLA been asked to provide plans in support of CINC OPLANS, CONPLANS, TEP, etc.?	EUCOM and PACOM stated that they have requested DLA to provide support plans. Several others will ask for them or are considering that DLA provide them.
Does DLA participate in exercises?	USCENTCOM, USEUCOM, USJFCOM, USPACOM, USSOCOM, USSOUTHCOM and USTRANSCOM stated that DLA did participate in exercises and in several of the CINCs the level of involvement has gone up considerably.
What products and services are critical to the CINCs' peacetime engagement, deliberate and contingency planning, and wartime operations?	The CINCs identified many of DLA's business areas as important to their mission areas. Supply and materiel management support of class I, II, III, IV, VI, VIII, and IX were identified as critical sustainment needs. The management of bulk fuels suppliers for ship bunker fuel and aviation fuels and storage points was identified as especially critical to a number of CINCs. DLA services such as hazardous waste removal, identification of excess equipment and supplies for FMS/EDA, depot consolidation and shipping services, in-transit visibility (e.g. AIT), FEDLOG, electronic mall, prime vendor, and other technical and logistic advice and support were identified as important to the CINCs.
What kind of peacetime, contingency, and wartime support is expected from DLA?	CINCs expect DLA for the most part to perform as an integral part of the warfighting team. The CINCs singled out the DLA contingency support teams in the theater to provide support for FMS/EDA, removal of hazardous and excess materiel, supply and materiel management support, and to be an active partner in deliberate planning.

DLA support to the CINCs (cont)	Unified Combatant Command (cont)
How well does DLA satisfy your requirements?	All the CINCs stated that they were satisfied with DLA's performance in support of their peacetime and contingency missions. Several CINCs felt that DLA was very responsive; highly efficient, and did an excellent job in supporting their ongoing operations. SOCOM expressed some concern regarding the coding of items that were transferred from the Services to DLA and that their forecasting models (for inventory management and restocking) needed to be more responsive to customer requirements. Also, there was concern that there is no DLA representative assigned to the combatant command. Significant DLA deficiencies in the supply of chemical warfare protective suits, medical stocks, war reserve materiel for 2-MTWs, and an inadequate en route POL infrastructure to support a logistics air bridge for 2-MTWs are continuing concerns which need to be addressed.
What opportunities exist to improve DLA's ability to meet your operational needs?	Several CINCs would like to see an increased forward presence of DLA Contingency Support Team (DCSTs), DRMOs, and depot storage facilities; as well as improved warfighter interface, including OPLAN supply reviews and confidence that DLA can support their wartime mission. The CINCs identified a number of improvements regarding the need for improved visibility of materiel moving into the theater, and improvement in their automated information system tools for asset visibility. DLA needs to continue to educate the customer about its ongoing initiatives to provide improved customer service. Customers in the field are often unaware of the full potential of service support that DLA can provide. Prime vendor contracts have demonstrated some successes. However, there is still some concern whether they can meet "surge" requirements for a 2-MTW scenario.

The results of the 1999 Biennial Review of Defense Agencies conducted by the Office of the Secretary of Defense showed that customer satisfaction for DLA ranged from a low of 74 percent for Materiel Management to a high of 95 percent for the

Defense Automatic Addressing System. The overall results showed "very strong support for DLA to continue offering its products and services." The Biennial Review also concluded that, overall, customers are satisfied with the effectiveness, efficiency, and economy of DLA's products and services, although pockets of customer dissatisfaction with "specific aspects of service" were revealed.

DLA's FY 01 performance contract with the Defense Management Council (DMC) includes 27 performance targets. A review of these metrics indicates that 25 of the 27 address matters related to efficiency and peacetime effectiveness. Only one metric directly addresses wartime effectiveness, namely, the target for petroleum war reserves. Further, only one metric has an apparent connection to innovation to support Joint Vision 2020: development of an automatic process to route orders. Since DLA is a Combat Support Agency with a critical wartime role, more emphasis on combat-related metrics seems appropriate.

The key contractual measures for peacetime effectiveness are the traditional metrics for aggregate supply availability and logistics response time. These measures are so gross that they are not reliable indicators of how well DLA is serving its customers. For that purpose, what matters is availability and response time for particular items and locations. For future performance contracts, DLA is considering a more detailed supply availability metric tied to specific Service Level A, B, and C weapons system availability goals. DLA is also participating in the DoD-wide development of end-to-end customer wait time (CWT) metrics for future use.

B. Interview results

The salient themes are:

- DLA has done an excellent job restructuring itself in areas such as clothing, textiles, fuel, medicine, and food. It is generally very responsive in these areas.

- In general, DLA is doing a good job, but must improve its capability to provide timely support of readiness-constraining weapons system critical parts. It is improving and has shown a desire to do better. This applies both to the leadership and the work force.

- DLA has demonstrated an increased willingness to tailor its service to what the customer needs. This trend seems to be top-down within DLA, driven by the Director.

- The Services stated that they needed to do a much better job of timely sharing of information with DLA in order for DLA to successfully fulfill the Service's responsiveness expectations.

C. Assessment and issues

Readiness-Constraining Supply Support. A recurring theme encountered by the team was dissatisfaction with DLA's Class IX Repair Parts performance. Troops get frustrated when they can't get the parts they need to accomplish their assigned missions. Furthermore, readiness suffers. However, there is no awareness within the Military Services' field structure, and scant recognition even at the headquarters level, of the cause[s] of this problem.

DLA's Obligational Authority (OA) is based on an aggregate Supply Materiel Availability (SMA) rate of 85 percent. In other words, DLA's fiscal resources are based on the premise that only 85 percent of all requisitions received would need to be immediately filled from available stocks. This approach is a holdover from DoD's historic philosophy of providing supply support via regionally located retail stocks backed up by centrally managed wholesale inventories. The Services are eliminating retail stocks and relying on DLA for direct support to operating forces and maintenance depot production lines. Thus, when DLA doesn't fill a requisition, a weapon system is inoperable or a maintenance line is halted. This adversely affects materiel readiness.

DLA's stockage models were designed to maximize the number of items that are in stock with available funding authority. This approach favors less expensive, high demand items. In the wake of the transfer of weapon system-unique consumable items to DLA, and the trend toward eliminating retail stocks, DLA has taken steps to stratify its inventory projections to better meet weapon system readiness goals. However, this approach requires investment in relatively expensive, low demand safety stocks.

During 1999, there was growing concern about DLA's inability to achieve for aviation items the overall SMA goal of 85 percent, and the contribution of this situation to the continuing decline in aircraft Mission Capable rates. This led to a POM 01 program issue that resulted in PDM direction for DLA to increase the purchase of aviation spares by $500 million over a four-year period. The PDM also directed OSD Comptroller to provide sufficient additional DWCF OA to permit DLA to make the requisite spares purchases. A less cumbersome process is sorely needed for granting DLA the OA it needs to capitalize readiness enhancing stocks in a timely manner.

III. MANAGEMENT

A. Governance structure

DLA is under the day-to-day operational direction and control of the Deputy Under Secretary of Defense for Logistics and Materiel Readiness (DUSD(L&MR)) and the overall supervision of the Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)). As DLA is a Combat Support Agency, it also operates under the direction and oversight of the Chairman of the Joint Chiefs of Staff for certain

matters. Additionally, elements of DLA receive direct guidance and oversight for selected assigned responsibilities from numerous other officials both within AT&L and elsewhere in OSD.

DLA operates within the general policy framework provided by the various DoD Directives, Instructions, and Regulations related to Logistics. Specific performance priorities are documented in the DoD Logistics Strategic Plan and DLA's annual Performance Contract with the Defense Management Council. DLA has translated the goals and objectives in these documents into a DLA Strategic Plan known as "DLA 21."

DLA has instituted periodic Performance Management Reviews (PMRs) to provide timely feedback on performance related to the goals and objectives in DLA 21 and the Performance Contract. PMR currently addresses four categories of performance: Customer Metrics, Operational Metrics, Financials, and Training and Workforce Development. DLA's Director and Executive Staff conduct PMRs on a quarterly basis.

Additionally, the Director utilizes "Please See Me" sessions (PSMs) to 'drill down' into causes and remedies for metrics that are 'out of tolerance.' PSMs also are used to keep abreast of agency actions to resolve significant customer dissatisfaction situations.

B.   Customer relations

DLA is a member of the Joint Logistics Commanders (JLC) and a participant in the Conference of Logistics Directors (COLD). With representation from each Service's materiel command and all Service headquarters logistics staffs, the JLC provides an outstanding forum for the Services to identify their key logistics issues to DLA. COLD serves as an valuable venue for exchange of information with the Unified Command logistics staffs, and the development of new joint initiatives to improve logistics support to the warfighter. Additionally, DLA provides a forum for the management of its customers to express their views on issues and initiatives by hosting events such as DLA/Army Day, DLA/CINCs Day, etc., several times each year.

DLA operates a Customer Support Network of call centers accessible by a single toll free line (1-877-CALL-DLA) to ensure customers are never more than a phone call away from knowledgeable technical assistance. Additionally, DLA has a world-wide network of Customer Service Representatives (CSRs) collocated with all major "customers." This face-to-face presence enables continual awareness of customers' concerns/problems/issues, and provides a direct conduit for pursuing resolution.

DLA has been conducting a robust program of regular mailed customer surveys since 1994. These mailed questionnaires are supplemented by periodic focus groups and telephone 'panel surveys.' The program has proven quite useful in identifying where

customers perceive performance deficiencies so that DLA can target its improvement efforts.

As a Combat Support Agency, DLA has the following features aimed at ensuring seamless transition from peacetime to contingency/wartime support:

- DLA has established field headquarters organizations – known as DLA-Europe and DLA-Pacific – to oversee and coordinate the activities of all DLA personnel located within these theaters. These organizations are collocated with the Theater CINCs (the DPAC Commander is forward positioned at Taegu, Korea).

- Liaison Officers (LNOs) are assigned to the Joint Staff and to each Unified Command. These LNOs facilitate DLA's participation in deliberate planning, joint training exercises, humanitarian assistance/contingency operations, etc.

- Based on lessons learned from Operation Desert Shield/Storm, DLA developed the DLA Contingency Support Team (DCST) concept. DCSTs are tailorable force elements that can rapidly deploy in support of a Theater or Joint Task Force commander for wartime, contingency, or humanitarian relief missions. A DCST consists of liaison officers and representatives from the materiel, distribution, and fuels management communities, plus disposal, reutilization, and marketing specialists.

C. Pricing practices and initiatives

DLA's pricing practice varies by Business Area. Table 3 presents an explanation of pricing techniques for representative DLA Business Areas.

DLA's Director has established guidance that Customer Prices must stay within the bounds established in the Program Objective Memorandum (POM), and meet the Performance Contract deliverable. The primary source of pressure on DLA prices is the reaction to its rates by the Military Services, and the corresponding threat of losing customer business. These factors drive DLA to control costs and provide the best value (price and service) to their customers.

DLA efforts to meet the CPC challenge by controlling, but preferably lowering, its operating costs are described in a later section. DLA also continually evaluates its pricing methodologies to comply with the requirement to fully recover costs while endeavoring to employ best business accounting practices. Some examples are:

- Storage billing based on cubic feet of warehouse space occupied was adopted in FY 99 in order to give DLA's customers visibility of the space occupied by their materiel and associated costs. This mirrors commercial practice.

- Net Landed Cost (NLC) will become the basis for distribution processing (i.e., receipts and issues) beginning in FY 02. This will replace a flat charge with a fee structure, which reflects the 'value added' of services required/requested.

DLA

- Transaction Activity Billing (TAB), which goes into effect in FY 02, will permit Service-level billing for DRMS services to be based on actual workload for eight different types of services.

Table 3. Defense Working Capital Fund
Defense Logistics Agency – Selected Business Areas

Business Area	Pricing Method	Funding and Buying Decisions	Comments
Distribution – Warehousing	cubic feet of occupied storage per time period; rates based on type of storage; e.g., outside, refrigerated, bulk, bin, etc.	paid by Service and federal agency ICPs and Project Managers from working capital or appropriated funds, as relevant	customer of this Service gets the bill
Distribution – Shipment	per transaction (i.e., shipment); rates based on weight and cube, materiel characteristics (e.g., bulk, hazardous, etc.) , and mode of shipment (e.g., surface or air)	paid by Service and federal agency ICPs and Project Managers from appropriated or working capital funds, as relevant	customer (i.e., the organization being shipped to) does not 'see' the cost of shipment mode implicit in the priority assigned by the customer to the order
Materiel Management	per item; rates based on cost of goods sold plus 'surcharge' covering cost of operations (surcharges differ among commodities)	paid by customer (i.e., organization ordering the items) from O&M (for operating units) or DWCF (for maintenance depots)	price paid by customer contains costs unrelated to the cost of providing the items ordered
Logistics Information Services	pro rata share of total operating costs	paid at Service and DLA headquarters-level from O&M (for Services) and DWCF (for DLA); pro ration based on distribution of previous year's transactions	DLA's share is rebilled to the ICPs for inclusion in their surcharges
Printing and Publishing	per transaction; rates based on length and complexity of document and mode (e.g., paper, CD, etc.)	paid by customer (i.e., organization ordering the items) from O&M or WCF, as relevant	customer prices reflect service requested by the customer

DLA also employs 'Price Comparability' in an attempt to extract readiness-related (i.e., "must-have-for-war-even-if-not-used-in-peacetime") costs from its rate structure, thus enabling customers to better compare DLA's prices with those of other sources. Costs that a commercial firm would not incur are identified and budgeted for via the Operations and Maintenance appropriation. Examples of such costs include storing war reserve material, and procuring and storing ozone-depleting substances. DLA is pursuing the addition of DLA's share of the Defense Transportation System's over-ocean transportation costs, DRMS demilitarization costs, and the costs of readiness/contingency IT requirements.

D. Business practice initiatives

DLA continues to be proactive in implementing the principles of acquisition reform, business process reengineering, outsourcing and privatization, and the use of emerging technology to reduce costs while maintaining the highest level of support to the warfighter. Salient examples follow.

1. Materiel Management Business Area

DLA has adopted a <u>Weapon System Management</u> approach. DLA has replaced its six commodity-oriented Inventory Control Points with three 'lead centers' – Richmond for Aviation Support, Columbus for Maritime and Ground Systems Support, and Philadelphia for Troop and General Support. A network of Weapon System Support Managers (WSSMs) and Weapon System Points of Contact (WSPOCs) interacts with a variety of Service contacts to maintain weapon and troop support readiness metrics, and recommend investment and acquisition strategies that enhance weapon and troop support.

<u>Prime Vendor (PV)</u> is the reliance on commercial distribution channels to deliver typically commercial products directly to DoD customers. DLA pioneered the PV approach to providing logistics support with the establishment of a medical supplies prototype in 1993. DLA extended the concept to other commodities with the creation of PV arrangements for pharmaceuticals and medical/surgical products; subsistence; food service equipment; materials used in the maintenance, operation, and repair of facilities, wood products, metal products, and fire fighting supplies.

<u>Virtual Prime Vendor (VPV)</u> extends the PV concept by contracting for the combined supply management and distribution to the customer of a mix of commercial and military-unique items having similar manufacturing or distribution characteristics.

VPV applications include: clothing and textiles support to recruit training centers, benchstock support to maintenance depots, automotive parts support for tracked and wheeled vehicles, and the recently awarded C-5 aircraft parts support contract.

One of the key features of successful commercial enterprise is the formation of 'strategic relationships' whereby the 'total ownership cost' of providing an array of items

is minimized while satisfying customer expectations. DLA is pursuing Strategic Supplier Alliances (SSA) with those sole source suppliers that produce a wide variety of military-unique items. The innovation in these long-term, corporate contracting arrangements is that they would include item demand-unique acquisition strategies; e.g., separate pricing structures for Catalog, Replenishment, and Rapid Response/Build to Order items.

2. Distribution business area

Dedicated Truck is used by DLA to routinely provide Time Definite Delivery to DLA's major customers. This 'customer-specific' traffic management concept, coupled with DLA's strategic Stock Positioning strategy, enables customers to attain readiness objectives and hold down costs by enabling them to reduce retail stocks and optimize the use of the local logistics workforce.

Premium Service allows materiel managers to position items typically weighing less than 150 pounds in a contractor-owned and -operated facility for expedited delivery worldwide. Overnight delivery in the CONUS and two-day delivery to overseas airports serviced by FedEx is guaranteed. The 'premium' distribution cost charged permits offsetting savings by enabling reliance on reduced inventories.

Depot Consolidation. Now that DSS – the Distribution Standard System – is fully operational, DLA can rationalize the utilization of closely located facilities that they inherited from the Services under DMRD 902. DLA has reconfigured the Tracy and Sharpe sites at Defense Depot San Joaquin, CA and the New Cumberland and Mechanicsburg sites at Defense Depot Susquehanna, PA. This consolidation of fast-moving, high-demand items at the highly automated sites and the slow-moving, low-demand items at the more antiquated sites will yield an annual reduction of over $30M.

Competitive Sourcing is being pursued at DLA CONUS distribution depots. Four depot competitions have been completed to date (the private sector won three). Competitions under way at another five depots are scheduled for completion this fiscal year. Competitions for the remaining depots are programmed for the out years.

Strategic Distribution Management Initiative (SDMI) is a partnership between DLA and USTRANSCOM to measure and improve the overall effectiveness and design of DoD's global supply chain. DLA's primary focus is on Stockage Management policies and practices that will reduce Customer Wait Time and ensure Time Definite Delivery.

3. Materiel disposition business area

Commercial Venture partnerships are being developed with private sector firms to handle the sales of selected commodity classes and scrap. These promise to reduce operating costs and to increase sales revenue through innovative marketing techniques.

Infrastructure Consolidation. DRMS' vision is to "move information, not property." This concept replaces physical consolidation of excess property in DRMS-operated storage facilities with a Web-based approach to locating customers. This approach has permitted DRMS to reduce the number of DRMOs far in excess of those that became surplus due to base closures. DRMS has further consolidated complex, specialized (and thus costly) functions, such as demilitarization, surveillance, and performance (by contractors) oversight, to a handful of DRMOs.

DRMS is also using Competitive Sourcing as a means of ascertaining the best value provider of logistics support services. The competition for the Northeast region has been concluded (the private sector won); competitions for remaining regions are scheduled to commence later this year.

E. Personnel management initiatives

DLA has been in a continual downsizing mode since 1993. Like many federal agencies, DLA relied extensively on incentivizing voluntary retirements and separations, coupled with constrained recruiting, to achieve its workforce reduction targets. This has led to shortages that are slight now, but projected to become severe in a number of critical skills. DLA has thus created a Corporate Intern Program, which is projected to grow to 350 per year.

DLA employs military personnel in command and key staff positions throughout its worldwide operations in order to ensure a 'warfighter focus' and to facilitate customer relations. DLA currently has 582 military personnel; of these, only 98 are occupying Joint Duty billets. DLA cannot obtain the numbers and quality of military personnel it needs to ensure that it can effectively perform its mission. Current fill rates by Service are, in percentage:

Army	60
Navy	100
Marine Corps	80
Air Force	70

DLA may be unique among Defense Agencies in that it has Reserve Component elements. Currently, 575 reservists are authorized. The bulk of these are earmarked for assignment to DLA Contingency Support Teams (DCSTs), which deploy with combat forces to assist in providing DLA's component of combat support services to the warfighter. In addition to training for their 'wartime' jobs, DLA's reservists also generate Peacetime Contributory Support by using their military and civilian skills and experience on special assignments associated with fulfilling DLA 'peacetime' missions.

F. Interview results

The salient themes from interviewing stakeholder and customer surrogates are:

- DLA management, the OSD PSA, and most of the Service representatives stated that the annual Performance Contract with the DMC was of no value to them. This is primarily due to the extremely high level of aggregation for the metrics in the Performance Contract. DLA and the Services consider bilateral (often site-specific) Service Level Agreements (SLAs) the preferred means for conveying performance expectations.

- There is inadequate high-level, deliberate external oversight of DLA. Both DLA management and the OSD PSA stated that a 'board of directors' representing customers is needed to set long-term goals, provide strategic direction, and guide the agency. Without such a body, there is no way to connect the 'performance expectations' of DLA's customers with the resources and authority provided by OSD to DLA.

G. Assessment and issues

Pricing Distortions. The DWCF prices that determine customer bills for DLA services are distorted. They do not always reflect the costs of the service provided. As a result, customers act on misleading signals, sometimes buying from other sources even when DLA's true costs are lower, sometimes buying from DLA but reimbursing only part of the costs incurred by DLA. Both cases may adversely impact readiness and total costs to the government.

A major cause of the distortions is that the prices charged for materiel supplied by DLA are used to recover costs related to readiness or to other activities, often based on direction from OSD. While DLA's Price Comparability initiative aims to defray selected readiness costs through appropriated funding, the dollars available are minimal, much less than one percent of overall DWCF costs. Further, this initiative does not address the substantial readiness-related costs of holding safety level stocks that could not be justified based on economic demand models alone. Another recent example is the recovery of the FY 01 costs of DLA's DRMS business area through the supply management prices. Inclusion of such unrelated costs raises the surcharges (over the cost of the goods provided) that DLA uses to recover its costs of operations, sometimes causing customers to seek out cheaper sources of supply. Competing for the Services' business can pressure DLA to improve its performance, but such competition should be based on prices that reflect whatever cost advantages DLA achieves. With distorted prices, customers may be driven away needlessly, with a potential loss of DLA buying power, supplier relationships, and visibility into Service requirements.

The lumping of peacetime and readiness-related costs in DWCF prices has a particularly pernicious effect on DLA's capability to stock slow-moving, readiness-related inventories. Stocking such items ties up DWCF funds that could otherwise be

used to maintain availability of high-demand items. Further, slow-moving items tie up warehouse space and may carry a higher risk of obsolescence and wastage. Today's DWCF prices do not convey to customers the true costs of stocking such items. DLA recovers its costs only through higher prices and reduced availability for high-demand items. Differentiating prices for high-demand and slow-moving items in the future could provide DLA with more revenue to meet readiness requirements without impacting other users.

Enterprise Integration. The Focused Logistics pillar of Joint Vision 2020 envisions replacement of the 'iron mountain' (i.e., large stockpiles of materiel) approach classically used by DoD for supporting forces in theater, with rapid, time-definite delivery of materiel from out-of-theater (commercial and government) sources. The key to making this concept work is Supply Chain Integration. In other words, the management of the supply chain from vendor to user must be integrated from end-to-end.

Currently retail-level materiel management, wholesale-level materiel management, and depot-level repair are managed as essentially stand-alone processes. Each of these processes relies on separate transactional IT systems, most using decades-old technology. The designation of DLA in the early 1990s as the single manager for consumable items and the single manager for distribution (i.e., warehousing and shipment of end items, reparable components, and consumable items) greatly expanded the number of IT systems that need to directly interface. Additionally, because these processes are each financed via Working Capital Funds, each of the supporting IT systems must interface with DFAS.

The Services and DLA have embarked on efforts to modernize their logistics processes and supporting IT systems. When queried about interface mechanisms among relevant efforts to ultimately ensure compatibility of processes and interoperability of systems, the answers typically were 'not sure' or 'just getting started.'

DLA and several of the Services are pursuing modified COTS enterprise resource planning (ERP) solutions for their modernized logistics IT environments. These ERPs come with financial modules; but permission to plan on using these modules rather than passing data to DFAS has not been forthcoming.

It would appear that some mechanism is needed for ensuring that the Service and DLA process reengineering/IT modernization efforts are compatible. Additionally, OSD needs to 'step into the breach' and develop a cohesive strategy for the modernization of financial and functional processes and IT systems.

IV. CANDIDATE QDR ISSUES

Global Distribution. The Dominant Maneuver cornerstone of Joint Vision 2020 (JV 2020) requires force deployment times that are an order of magnitude faster than

what was achieved in Desert Storm. Focused Logistics – the reliance on rapid distribution rather than large in-theater stockpiles –requires that 'sustainment' shipment be concurrent with force deployment. These considerations, combined with the goal of appropriate Customer Wait Time (CWT) and Time Definite Delivery (TDD) as the Measures of Effectiveness for DoD's logistics system, require a distribution system that can function seamlessly in peace and wartime.

The current DoD Supply Chain is an uncoordinated mix of inventory locations and distribution modes. TRANSCOM and DLA have initiated a partnership, known as the Strategic Distribution Management Initiative (SDMI), to find ways to synchronize their respective processes in order to improve distribution system performance. However, SDMI has its limitations. Neither party is willing to undertake process changes that will increase it own operating costs. Only a decision authority that can put the best interests of DoD as a whole to the fore can overcome this frailty.

More importantly, key providers of elements of the overall distribution process are not participants. For example, in-theater distribution is the responsibility of each of the CINCs (typically carried out by one of the Component Commands as executive agent); yet, with the exception of EUCOM (a recent additional participant), the Unified Commands are not SDMI participants. The Army, as the Single Manager for Conventional Ammunition (SCMA), is a major player in the CONUS leg of the distribution process, but not part of SDMI. Additionally each of the Services, as the managers of reparable end items and components, must be parties to any effort to institute a 'truly seamless' distribution process.

OSD needs to commission an effort to address the need for a seamless worldwide distribution system that functions effectively under both peacetime and wartime conditions. This effort should identify options for near-term and longer-term procedural, organizational, and IT systems changes. A bold initiative championed by top-level management will greatly improve the likelihood that defense distribution can someday fulfill the objectives of JV 2020.

II. DEFENSE INFORMATION SYSTEMS AGENCY

I. MISSION

A. Mission statement

The Defense Information Systems Agency's (DISA) formal mission statement reads "To plan, engineer, develop, test, manage programs, acquire, implement, operate, and maintain information systems for command and control, communications, computers, intelligence (C4I) and mission support under all conditions of peace and war."

The mission statement is amplified in the Agency's self-stated mandate, which indicates that "DISA is integrating hardware and software and constructing a common operating environment to sustain warfighters' needs for information anytime, anywhere..[through]...the Defense Information System Network, the Defense Message System, the Global Command and Control System, and the Global Combat Support System. DISA is also helping protect against, detect and react to threats to both its information infrastructure and information sources. Additionally, DISA is aggressively working with DoD Agencies, the military departments, and other federal agencies, and industry."

DISA was originally established on May 12, 1960 as the Defense Communications Agency (DCA) and redesignated as DISA on June 25, 1991. DISA has two primary missions, which are executed through a number of subordinate functions:

- DISA is the central manager of key Global Information Grid (GIG) assets, and is the combat support agency responsible for planning, developing, and operating/supporting joint C4I systems that serve the needs of the National Command Authority (NCA), the Military Services, joint theater and functional commanders in chief (CINCs), Defense Department agencies, and deployed forces under all conditions of peace and war. The GIG is defined as "the globally interconnected, end-to-end set of information capabilities, associated processes and personnel for collecting, processing, storing, disseminating and managing information on demand to warfighters, policy makers, and support personnel. The GIG includes all owned and leased communications and computing systems and services, software (including applications), data, security services and other associated services necessary to achieve Information Superiority...The GIG provides capabilities from all operating locations (bases, posts, camps. stations, facilities, mobile platforms and deployed sites...)..."

  The Director of DISA also manages the National Communications System (NCS), a confederation of 22 organizations across the federal government

tasked with ensuring the availability of a viable national security and emergency preparedness (NS/EP) telecommunications infrastructure. The President designates member organizations that own or lease telecommunications facilities/services of significant value to emergency response or that have important telecommunications policy, regulatory, or enforcement responsibilities. The assets of these organizations comprise the bulk of the federal government's telecommunications resources. In managing the NCS, DISA's role is to assist the president, National Security Council (NSC), Office of Science and Technology Policy (OSTP), and the Office of Management and Budget (OMB) in:

(1) the exercise of the telecommunications functions and responsibilities set forth in Section 2 of Executive Order 12472, and

(2) coordination of planning for and provision of national security and emergency preparedness communications to the federal government under all circumstances, including crisis or emergency, attack, recovery and reconstitution.

B. Origins and rationale

DCA was created under Secretary of Defense Thomas B. Gates in 1960 to consolidate the management of and provide direction to the Defense Communications System (DCS). The DCS was the consolidation of the Army, Navy, and Air Force's independently operated communications systems prior to DCA.

Rapid growth and additional consolidation characterized DCA in the 1960s. Additional responsibilities, including the Air Force Office of Commercial Communications Management, the White House Signal Agency, and the Operational and Management Division of Civil Defense Communications were added to DCA. The Agency also was designated as the focal point for space and ground element interaction of the Communications Satellite System, and the Defense Communications Engineering Office was established to work on AUTOVON/AUTODIN systems. Engineering and technical support functions for the National Military Command System (NMCS) and automated data processing support for NMCS operations and joint wargaming were added. The Director of DCA was designated Chairman of the Military Communications-Electronics Board, and Manager of the National Communications System.

In the 1970s, DCA assumed responsibility for the Minimum Essential Emergency Communications Network (MEECN) and the Military Satellite Communications (MILSATCOM) Systems Office. At the close of the decade, DCA was given responsibility for the Worldwide Military Command and Control System (WWMCCS) engineering effort and for computerized activity of the National Operations Technical Coordination Center.

In the 1980s, DCA became responsible for the Theater Mission Planning System and for developing and managing the Defense Data Network (DDN), the Defense

Switched Network (DSN), and the National Emergency Airborne Command Post (NEACP) software. In January 1987, DCA and the Joint Tactical Command, Control and Communications Agency were consolidated, improving DCA's capability to manage and enhance the interoperability of C3 functions. In 1989, a Joint Interoperability Test Center was established to provide compliance testing and certification. DCA was also asked to take the DoD lead in providing C3I support to national counter-narcotics operations. Responsibility for WWMCCS ADP modernization was transferred from the Air Force to DCA.

On June 25, 1991, DCA was redesignated the Defense Information Systems Agency to reflect the convergence of telecommunication and computer technology and the agency's expanded role in implementing the DoD's corporate Information Management Initiative.

C. Functions, products, resources, and customers

DISA's responsibilities have expanded greatly over time, consistent with both the rapid development and expansion of information technology and DoD's need to manage these assets. Initially an Agency that devoted much of its time and energy to strategic-level and some operational-level support, DISA is now intimately involved in tactical-level support as well. The cachet, "bandwidth to the battlefield," has more meaning now than ever before.

Specific products and services provided by DISA include:

- Voice communications (secure, non-secure)
- Video conferencing and services (secure, non-secure)
- Data communications (secure, non-secure)
- Military contingency communications/exercises
- Transmission services/products (Non-secure Internet Protocol Routing Network (NIPRNET), Secret Internet Protocol Routing Network (SIPRNET), Defense Satellite Communications, etc.)
- Global Information Grid management (planning, implementation, operations, and technical support)
- Customer support services
- Interoperability testing, evaluation, certification, accreditation, and support products and services
- Information processing operations (Defense Enterprise Computing Centers)
- Contracting support for purchases (hardware, software, telecommunications equipment, maintenance/service agreements).

The Agency's functions, products and services, resources, and customer base for its GIG and NCS missions are summarized in Tables 1 and 2.

Table 1. DISA's GIG Mission, Functions, Products/Services, Resources and Customers

Function	Product/Service	Resources	Customers
Plan, build, operate	Global Command and Control System (GCCS), the Defense Information System Network (DISN), the Defense Message System (DMS), and the Global Combat Support System (GCSS)	Primarily internal assets and capabilities, some commercial assets and capabilities	President, DoD, Defense Agencies, CINCs, Military Services
Provide	DoD computer emergency response capability and leadership for DoD information assurance	Primarily internal resources	DoD, CINCs, Military Services
Manage and provide	End-to-end integration of GIG components, technical support to compatibility, integration and interoperability activities of GIG	Primarily internal expertise and skilled individuals	President, DoD, CINCs, Services, Defense Agencies
Provide	Direct operational support to the Joint Staff, CINCs, and deployed forces	Worldwide DISA commands, internal assets and equipment, plus some commercial	JS, CINCs, Military Services, Defense Agencies
Provide	Key information technology (IT) products and services to support electronic commerce, business and public affairs, sharing of scientific and technical information	Mix of internal and commercial assets and skills	DoD, Federal Agencies, Services, CINCs, general public
Provide	Operational support to NCA, including White House communications and national security/emergency preparedness (NS/EP) missions.	Internal assets, contractor support	President, DoD, key Federal Agencies

Table 2. DISA's NCS Mission, Functions, Products/Services, Resources, and Customers

Function	Product/Service	Resources	Customers
Manage, plan, assist, advise	Telecommunications capability for the federal government under all conditions	Internal assets and capabilities, commercial assets and capabilities	President, DoD, 22 member Federal Agencies

D.   Interview results

Approximately 20 interviews were conducted pursuant to this task, the goal being to obtain as broad a sample of opinions as possible. Interviewees ranged from top management within the Defense Department down to operational customers in the field. Interviews were held with ASD C3I and several of his senior deputies, officials from other departments within the Office of the Secretary of Defense, the Director of DISA and his chief of strategy and planning, general and other senior officers from Service headquarters, and customers of DISA representing the Unified Command staffs, other joint agencies, and operational units.

Overall, the interviews produced insights, criticisms, and laudatory comments of DISA. There is nearly universal agreement that a joint agency such as DISA is needed. It plays a key role in ensuring "jointness" and interoperability through the setting of standards, operational testing, joint systems development, and frequency spectrum management. It is needed to operate a common communications backbone network that provides assured access, worldwide coverage, security, interoperability, and other features essential for command and control of military forces. In addition, the economic and operational advantages of the Defense Enterprise Computing Centers (DECCs) are recognized. In general, then, the current missions and functions of the Agency are considered to be appropriate. On the other hand, there is a widespread belief that not *all* DoD information systems and networks must be acquired and managed by the Agency. Many of DISA's customers believe they could achieve significant cost savings if they were permitted to acquire and manage certain information networks that support their unique administrative, logistics, and other routine, non-commandand control functions.

E.   Assessment and issues

"Jointness" and interoperability are perhaps more critical to C4 than to any other functional area and, as reflected in the interviews, a joint body such as DISA is essential to ensuring this capability. However, DISA's customers make a persuasive case that there would be economic advantages in allowing the Services more latitude in acquiring and managing information resources for non-mission critical activities. We conclude that balancing the potential economic and operational advantages and disadvantages is an

issue that should be explored in more depth and is a candidate for consideration by the QDR.

II. DISA PERFORMANCE MEASURES

A. Status of metrics and benchmarks

DISA's performance is measured through a variety of mechanisms. Performance contracts, strategic plans, benchmarking activities, surveys, and other defense agency reviews and initiatives are performed throughout the fiscal year. While the number of assessment activities taking place is adequate, there is some disagreement as to the effectiveness of such reviews in modifying, and ultimately improving, DISA performance.

The performance contract for DISA (and the other Defense Agencies) came out of Defense Reform Initiative Directive (DRID) #23, which requires Defense Agencies to manage by performance objectives. Draft contracts are submitted annually, with the POM, which (1) focus on the current budget year; (2) outline manpower, budget, and funding types; and (3) identify high-level, strategic performance measures. Within the performance contract, are four DISA business areas:

- Joint warfighting and DoD-wide enterprise capabilities,
- Telecommunications services,
- Computing services, and
- Enterprise acquisition services.

This breakdown of business areas was used in the 1999 Biennial Defense Agency Review and is used within DISA strategic plans and benchmarking studies.

The FY02 performance contract includes more than 40 deliverables for which specific metrics have been established. Types of performance measures include unit cost/productivity, quality/customer responsiveness, quantity/scale, reengineering actions, and improvements to metrics. Within the telecommunications services business line, metrics are well defined and quantitative. For example, DISN unit costs are established by theater for FY02 and the outyears. Quality metrics are tied back to data loss and latency rates. Reengineering and improvements metrics include deadlines and deliverable contents. Metrics for computing services follow the same pattern; unit cost rates are established, utilization of CPU capacity is defined, and a commitment on platform availability is made. Enterprise acquisition service metrics are quantitative and are focused more heavily on customer satisfaction than on cost. The joint warfighting and DoD-wide enterprise capabilities business area metrics focus on process and product achievements by particular dates, although a few quantitative metrics are included. Metrics from the FY00 performance contract show that DISA has executed 96 percent of its FY00 deliverables.

B. What the metrics and benchmarks show

With respect to particular initiatives, DISA has DECC consolidation and optimization goals. DISA projects that DoD will save $1.8B by the end of FY07. Another achievement is in the computing services business line. DISA reduced mainframe application support services costs by 22 percent, and is on track to meet or exceed the performance contract goal of reducing such costs by 25 percent by FY02.

Results of the 1999 biennial review are organized into the same four DISA business lines. Survey respondents included joint military and Service customers, followed by responses from other DoD and government customers. Overall, across business lines, customers surveyed indicated support for DISA's continued offering of products and services, with fewer than 14 percent of respondents indicating that their organization could provide products and services better than DISA. Effectiveness, efficiency, economy, and responsiveness were rated as satisfactory.

Customer comments to the biennial review did highlight some problem areas. Pricing of telecommunications services is contentious. Dissatisfaction with prices in the computing business line was voiced as well. The most common complaint is that the customers can find the same offerings in the commercial market, which will provide "faster, cheaper, and better" service.

This perception was documented in an earlier assessment, the 1998 CSART. In the CSART, the Joint Chiefs recommended that DISA (1) increase its focus on and be more responsive to customer C4 requirements; (2) partner more effectively with operating forces to improve C4 system interoperability; and (3) examine ways to clarify and modify the way DISA charges its customers for communications services. This final recommendation became a reality in FY00 when the two-tier pricing structure was introduced. In the CSART, the Joint Chiefs made a series of more detailed recommendations upon which they are currently tracking DISA's progress. Most recommendations are policy- or process-oriented in nature, and do not include specific quantitative metrics, as do the performance contracts.

C. Interview results

Most organizations interviewed expressed satisfaction with DISA performance, and enthusiasm for recent changes in DISA leadership and management. Responses supported performance contract and biennial review data, with customers mainly agreeing that DISA provides vital services, allowing DoD to operate in a global, protected network environment. DISA's mission was viewed by most as essential to achieving Joint Vision 2020; without DISA, Service-unique stovepipes would result, precluding the interoperable information networks that DISA is working toward now. While DISA should continue to make improvements to performance—focusing on

responsiveness and cost efficiency—most customers felt satisfied with DISA-provided services and relationships.

However, a distinct subset of customers voiced strong dissatisfaction with DISA responsiveness, efficiency, and cost and accounting mechanisms. These opinions were heard most frequently among the Military Departments. They argued that DISA is not sufficiently responsive and disagreed with OSD policy biasing the procurement of long-haul telecommunications through DISA. They want greater transparency in the Defense Working Capital Fund (DWCF) rate development process, an understanding of the costs to be recovered through DWCF rates, and an accurate inventory of Military Service requirements being fulfilled by DISA.

Unified Commands gave much more positive assessments of DISA. Their views may differ from those of the Services, because the DISA's support to the CINCs is funded out of the Services' budgets. Customer-unique biases and histories, and a varied understanding of DISA's perspective, also explains differences is customer attitudes. Customers we interviewed who had worked a rotation at DISA understand the Agencies' challenges and its efforts to improve. They also better understood how to tap into DISA support, through colleagues that could readily answer questions and address concerns. The presence of a DISA representative as a liaison between the customer and the Agency also improves customer satisfaction (a DISA field representative and small staff are assigned to each CINC).

D. Assessment

The performance measures and metrics, biennial reviews, and other processes have resulted in positive DISA improvements: DECC consolidation and savings, a two-tier approach to telecommunications pricing, reform of acquisition approaches, and other initiatives are a direct result of such processes. Yet, performance contracts and other tools need further refinement. First, the agency needs to be held accountable when goals are not met. What happens if DISA fails to deliver on its promises? No enforcement mechanisms or penalties currently exist. Second, customers need to play a bigger role by working with DISA to develop specific metrics within each goal or business line. Some customers feel that the performance contracts are merely cookie-cutter agreements focused on low-hanging fruit—not the truly challenging problems faced by the Agency. Third, metrics and goals need to be tied to the POM and Agency budgets so customers have a better understanding of the resources involved in achieving particular goals.

DISA metrics and performance are summarized in the Table 3. The Agency's initiatives to improve performance are summarized in Table 4.

Table 3. Agency Metrics and Performance

Function	Metrics in place?*				Performance Assessments (Problems & Opportunities as seen by Services, OSD, Agency, Joint Military)
	Peace	War,	Eff,	Inov	
HQ/Policy					
Business Lines					
Joint Warfighting	P,G,A	P,G,A	P,G,A	A	
Computing	P,G,A,C	P,G,A	P,G,A	A	
Telecommunications	P,G,A,C	P,G,A	P,G,A	A	Need metrics on cost visibility, accounting
Enterprise Acquisition	P,G,A,C	P,G,A	P,G,A	A	

*Key:
P: Performance contract
A: Agency strategic plan/ performance plan
S: DA&M survey
J: JS CSART
G: GPRA
C: Commercial benchmarks

Table 4. Improvement Initiatives

Function	Outsourcing			IT/ Process Initiatives (planned/proposed)
	Eligible	Done	Planned	Description Assessment Impediments
HQ/Policy				Director's "500 Day Action Plan" includes the following major goals: (1) provide flexible, reliable information infrastructure
Business Lines				supporting GIG; (2) easy sharing of information supporting
Joint Warfighting				interoperability; (3) provide secure information resources; (4)
Computing	X			ensure personnel are available, well qualified, able to improve
Telecom		X		their skills, and have advancement potential; (5) Use
Enterprise Acquisition	X			information technology in support of business evolution.

III. MANAGEMENT

A. Description of Agency top management, PSA governance structure

The Director of DISA is normally a three star general/flag officer and the assignment is rotated among the Military Departments. In practice, an Air Force or Army officer fills the position; a Navy officer has not been assigned for many years and a Marine has never held the position. The Deputy Director is also military and, again, this billet rotates between the Services. A two-star officer normally is assigned as the Commander of the Joint Task Force Computer Network Operations (JTF CNO), and in this capacity reports to the Command in Chief, United States Space Command.

Oversight of the Agency is provided by the Assistant Secretary of Defense for Command, Control, Communications and Intelligence (ASD C3I), who is also the Chief Information Officer for the Department of Defense. ASD C3I also is responsible for

overseeing the Defense Intelligence Agency (DIA), the Defense Security Service (DSS), the National Imagery and Mapping Agency (NIMA), the National Reconnaissance Office (NRO), and the National Security Agency (NSA).

B. Status of processes

1. PSA supervision and guidance

Day-to-day responsibility for oversight of the Agency is divided among three directorates within the Assistant Secretary's staff: Security and Information Operations; Command and Control, Communications, Intelligence, Reconnaissance and Space (C3ISR&Space); and the Deputy CIO. Some 26 DISA billets are integrated into the ASD C3I staff. There is extensive contact between the staff and the Agency at the action officer level as well as top management. The Assistant Secretary conducts weekly meetings with the Director, which are also attended by the chiefs of the computer and communications departments of the Military Services These are supplemented, as required, by additional meetings and frequent communications between the Assistant Secretary and DISA Director.

2. Customer feedback and performance assessment

The new Director has initiated a comprehensive customer outreach program, visiting and soliciting feedback from customers within the joint commands, agencies, and Services. The response has been favorable and is regarded as a major shift in approach. The results of these visits have been encapsulated in the Director's "500 Day Action Plan," which includes a detailed list of goals for the Agency to accomplish, implicitly before the Director's expected reassignment. In the past, some of the Agency's perceived performance problems may actually have stemmed in part from a lack of effective customer relations, and this may be helped by the outreach measures implemented under the new leadership and embodied in the Plan.

The Agency also has created a Network Services Directorate at the headquarters, headed by a brigadier general. Its purpose is to enhance contact with customers who use the information networks managed by DISA. This is in addition to the existing Customer Service Division within Defense Information Systems Network (DISN) Service Center (DSC) at Scott AFB, IL, which assists customers in acquiring, provisioning, and managing telecommunication services. In 1999, the Institute for Defense Analyses assisted the DSC in developing a comprehensive set of performance metrics to facilitate customer support and comply with the Government Performance and Results Act and other national and DoD requirements, as well as to provide measurements in support of the DISA Performance Contract.

3. Planning, programming, budgeting

Both the ASD C3I and the Agency director believe that there is extensive and detailed scrutiny of budgets and programs—at least as much as experienced by the Services. However, the military departments, which pay some $574M for Defense Information Systems Network (DISN) services alone, point to growth in the DISA budget and express some skepticism about how rigorously it is reviewed.

C. Pricing practices and initiatives

Three of DISA's business lines—telecommunications, computing, and enterprise acquisition services—are funded through a revolving fund, the DWCF. Activities under the remaining business line, joint warfighting and DoD-wide enterprise capabilities, receive appropriated funds. Figure 1 shows the percentage of funds allocated to each DISA business line, and the method of funding used.
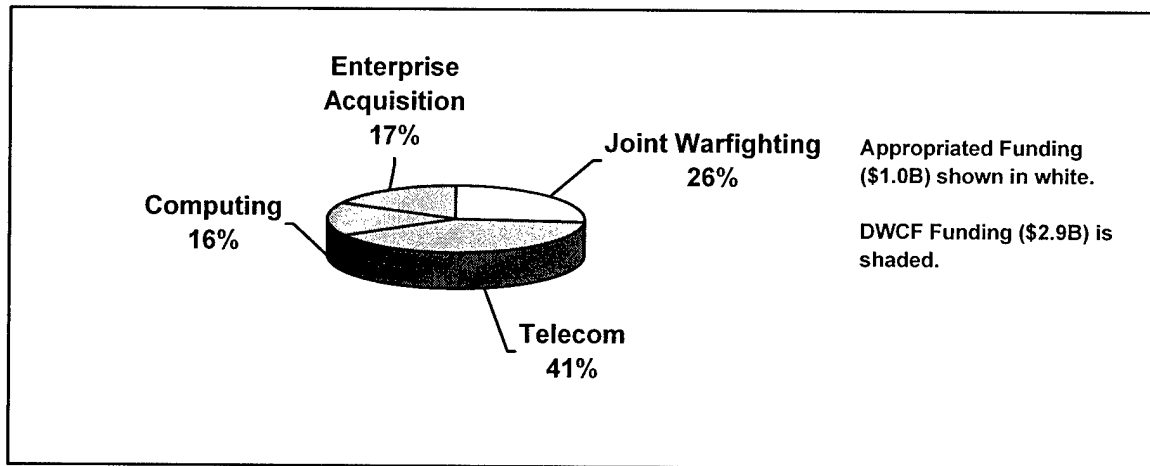
Figure 1. DISA Funding Sources

Source: FY00 President's Budget Submission.

Two-tiered pricing was introduced in FY00 in an attempt to incentivize the use of DISA telecommunication systems. Because the military requires secure, interoperable communications, DISA operates a dedicated network (the DISN) that offers security and availability features not present in commercial services. However, these features engender costs not borne by commercial telecommunications providers. These additional costs must be included in DISA's cost base and recovered in the DWCF rates. Because DISA faces a larger set of costs due to military-unique requirements than do commercial providers, and because DISA's rates are based on average costs, in many cases the Agency's rate for a particular type or location of service exceeds the commercial offering. In these situations, customers face an economic incentive to seek alternative service providers. Yet, when DoD users opt out of DISN, total DoD telecommunications

costs increase and economies of scale are lost. DISN costs are largely driven by military requirements and are funded regardless of the level of customer use.

Recognizing this problem, a new pricing policy was established to encourage the use of DoD telecommunication systems and promote security, interoperability, and efficiency. The goal of the policy is to price DISA telecom services based on rates for similar services established in commercial markets. Readiness costs are funded through and appropriated account for each Service. Tier one is intended to reflect the cost of the infrastructure and capabilities needed to ensure military readiness and execute command and control functions. Tier two is intended to finance the remainder of network costs associated with the delivery of services similar to those provided commercially, and is based on customer usage. In FY02, $174M is expected in tier one revenue and close to $400M is expected in tier two.

Customer response to the two-tier pricing system has been mixed. Almost all customers agree that greater visibility in cost accounting is required.

D. Defense Reform Initiative (DRI) and related business practice initiatives

Several significant actions have been taken in response to the Defense Reform Initiative. Some 194 computing centers operated by the military departments have been consolidated into 16 DECCs, and this number is being reduced to six. Initial indications are that significant efficiencies and savings have resulted, with DISA reporting mainframe computing costs to DoD dropping some 69 percent since 1990, and 974 military billets being returned to the Services (it should be noted that during this time, costs would have dropped anyway due to a major shift away from mainframe and toward client-server computing). Another action taken in response to the DRI was establishment of the Joint Electronic Commerce Program Office (JECPO), a joint effort with DLA to accelerate the application of paperless electronic business practices and associated information technologies. Finally, the Defense Technical Information Center (DTIC) was realigned under DISA to improve efficiency and management.

E. Personnel and facilities management plans or initiatives / information technology personnel/resources

The general perception outside the Agency is that DISA has gotten too large to be highly agile and efficient and, to quote one source, "needs to go on a diet." However, since FY93 the Agency has actually been reduced in size from more than 13,000 civilian and military personnel to 8,000, yet new responsibilities and requirements have been added that relate to information assurance, the Defense Message System, frequency spectrum management, electronic commerce, and expansion of field offices supporting the CINCs. The Agency is finding it difficult to recruit and retain high technology

personnel. This is a serious problem not only for DISA, but also for all of DoD. Greater flexibility in hiring and compensation practices is needed to be competitive with industry.

Two additional problems related to personnel surfaced during the study. The first is the high percentage of military workforce dedicated to presidential and national command center support. Of the 1,918 uniformed personnel assigned, 897 (47 percent) are within the White House Communications Agency or the National Command Center and are essentially unavailable for any other use. Secondly, many of the military billets in DISA do not result in the individual's receiving "joint designation," a virtual requirement for promotion to the higher ranks. The Navy has no information technology career path for unrestricted line officers, so being assigned to DISA is generally not career enhancing.

The DISA 500 Day Action Plan includes as one of its five strategic goals and objectives, making DISA a "sought after employer...(where)...personnel are available, well qualified, and able to improve their professional skills and advancement potential." The Plan indicates that to achieve this goal, DISA will focus on recruiting and retention, training, assignment of skilled personnel to combatant commands, use of reserve personnel in support of information assurance, and appropriate recognition and rewards for excellent performance.

F. Interview results/thoughts on agency management

Concern was expressed among those interviewed about the capability of the PSA to oversee the Agency adequately in view of the breadth of that office's responsibilities and lack of staff resources. In addition, there is an oft-repeated criticism that the OSD staff tends to act as an advocate for the Agency rather than a neutral common superior when arbitrating issues between the Agency, CINCs, the Military Departments, and other customers.

Internal Agency management also generates some concern. A frequent observation is that the Agency has acted like a monopoly for too long and needs to adopt a more businesslike approach. It should have a sharper focus on the customer and greater sense of urgency, be more efficient and cost consciousness, be less bureaucratic, and import "new blood" among upper- and mid-level management. A number of interviewees also mentioned the lack of continuity that results from having two military officers at the top and recommended that a civilian be assigned as Deputy Director.

G. Assessment and issues

1. Agency oversight

The Assistant Secretary's office does have exceptionally broad responsibilities, being charged with managing not only DISA, but several other key agencies and

organizations with important defense-wide and national missions, including DIA, DSS, NIMA, NRO, and NSA. And although there are certain common areas of interest among them, and potential synergy to be gained by having them fall under a single PSA, managing all of them effectively would be a challenge for any staff organization, even one with unlimited resources. ASD C3I, however, is spread very thin, despite being permanently augmented by the DISA billets. And these billets, while providing additional manpower and expertise, may contribute to the perception of bias when resolving differences between the Agency and the Military Departments.

2. Agency management

Increasing the requirement for the Agency to compete against commercial suppliers would serve to encourage a more businesslike approach. It would likely be beneficial from a cost and efficiency standpoint to DoD overall, and could be accomplished while still satisfying requirements for military readiness. Businesslike approaches and attitudes would also be facilitated by infusing the Agency with managerial talent imported from industry. Additionally, appointing a civilian executive as Deputy Director, especially one hired from the commercial world, would help to address both the lack of continuity and the need to more aggressively implement business practices.

3. Mandatory use of DISN versus contracting directly with vendors

DoD policy requires that the Services use the DISN to satisfy off-base telecommunication requirements unless a waiver is obtained, and further stipulates that DISA has "first right of refusal." This essentially means that if DISA indicates it can satisfy the requirement, the Service has no option but to use the DISN even if it might be significantly more expensive (from the users' standpoint). The Services complain that this near-monopoly provides little incentive for DISA to modernize, be efficient and cost conscious, or guarantee the quality of service on its networks. They claim that commercial offerings are "better, cheaper, and faster," and that providing internal telecommunications support, between bases for example, falls within their Title 10 responsibilities and prerogatives with respect to "manning, equipping, training, and providing forces to combatant commanders." Moreover, they claim that this policy conflicts with other DoD policy that requires the use of commercial products and services whenever possible. DISA, on the other hand, cites its responsibility to provide "best value for DoD overall," even if the cost to the individual user might be higher. In determining prices, the Agency must factor in the costs of security, interoperability, meeting surge requirements, dual routing/redundant circuit paths, and providing service to remote areas. This may cause telecommunication service provided by DISA, especially within CONUS, to be priced significantly higher than ostensibly comparable service obtained directly from vendors. The Military Departments respond that there are numerous cases

where "readiness" features are unnecessary (such as in support of routine administrative requirements), and paying for these features does not make economic sense. The QDR should address the economic and operational issues associated with mandatory use of the DISN, as well as the apparent conflict with policies requiring maximum use of commercial products and services.

4. Pricing

Related to the issue above, in the past DISA has not done a good job of explaining its pricing structure to the Military Services, especially the amount it expects them to pay into the DWCF. This is due in part to the lack of adequate accounting processes and systems that can be used to reveal DISA's true costs of doing business (for example, the cost of providing security, dual routing, remote access). Such mechanisms are needed to justify prices to customers and to facilitate tradeoff decisions regarding whether it is more advantageous economically and operationally to acquire services directly from vendors or use the DISN.

Another issue related to pricing involves usage-based billing. For some information services provided by the Agency, customers are charged on the basis of how much the service is used (for example, those services priced under Tier 2 of the DWCF), as opposed to a flat fee. The intent behind such billing practices is to encourage efficiency among the using units. A great deal of time and expense goes into the processes for determining usage and billing customers; however, there is evidence that this effort is wasted because the bills are usually paid by some far removedhigher headquarters, and the using unit never feels the impact. This and the lack of adequate accounting mechanisms are candidates for consideration by the QDR.

Supervision and management of DISA are summarized in Table 5.

Table 5. Supervision and Management

Management Oversight and Customer Interface	Mechanisms in Place/Assessment
- PSA	Overall supervision by ASD C3I. Office stretched thin given breadth of responsibilities.
- Agency Top Management	Top management includes two general/flag officers. Would benefit from more business orientation and civilian Deputy Director.
- Customer Interface	Customer interface provided by Director's outreach program, presence of representatives at unified commands, frequent contact between agency management and Military Service C4 staffs, creation of Network Services Directorate, and existence of DISN Service Center. Interaction greatly improved recently.
PPBS Review	**Mechanisms in Place/Assessment** Essentially same as other DoD organizations. Oversight adequate.
Performance Contract and Requirements	**Mechanisms/Assessment** Performance Contract, Biennial Review, CSART processes in place. Could profit from additional customer participation in development and assessment.
Strategic Plan and Performance Plan	**Mechanisms in Place/Assessment** Plans in place. Director's 500 Day Action Plan outstanding.

IV. CANDIDATE QDR ISSUES

A. Agency oversight

As indicated in the interview results and assessments above, PSA oversight of the Agency should be strengthened. Several alternative approaches follow.

- Appoint a Board of Directors to assist ASD C3I. This would help keep Agency focus on the customer, provide an objective view of Agency performance, and eliminate possible perceptions of bias.

- Increase the size of the ASD C3I staff to produce a more reasonable workload.

- Assign responsibility for supervision of the intelligence organizations to a different PSA, such as a newly created Assistant Secretary for Intelligence.

- Assign responsibility for oversight of the Agency to an organization with line authority, such as a newly created Defense Support Executive (Staff

authority, principally policy making, for the functional area of C3/C4 would be retained by ASD C3I.

- Reassign responsibility for the Agency to a unified commander. This would allow ASD C3I to perform purely staff functions while allowing a line organization to supervise Agency operations. Consider USCINCSPACE for this role. This would also align the JTF CNO under a single command structure.

B. Internal management

There are opportunities for improving internal management through further adoption of business practices:

- Require the Agency to compete more extensively against commercial suppliers in providing services other than those related to critical military functions such as intelligence and command and control.

- Bring in "new blood." Recruit top- and mid-level managers from industry.

- Appoint a senior civilian executive, trained and experienced in commercial business practices, to serve as deputy director. This would provide both continuity and a business perspective.

- Assign an officer from the Navy Department as director upon the next rotation. A Navy officer could help change attitudes within that Service toward the Agency. A Marine could provide balance, new perspectives, and could facilitate "jointness" within the Agency.

- Improve relations with and responsiveness to the Military Services by appointing a representative to each Service headquarters, as is done for the unified commands.

C. Agency performance

The Agency appears to be improving in response to Performance Contracts, the Biennial Review, and the CSART, and is exhibiting a new sense of customer focus and urgency under the Director's 500 Day Action Plan. However, it would also be beneficial to:

- Increase the role of Service, CINC, and Defense Agency officials in developing Agency performance metrics and in evaluating performance.

- Institute mechanisms to hold the Agency accountable for meeting objectives, such as tying performance against metrics to the Agency budget.

D. Requirement to use DISN versus commercial networks

The policy requiring use of DISN for all off-base telecommunications should be analyzed as follows:

- Evaluate specific operational requirements and conduct cost-benefit analysis to provide a rational basis for determining when use of DISN should be mandatory.

- Evaluate the policy requiring use of DISN in light of other DoD policies requiring maximum use of commercial products and services.

E. Pricing/accounting mechanisms

The Military Departments contribute major sums toward the operation of DISA networks, but receive no clear explanation of or justification for what they are charged. In addition, it appears that usage-based billing practices are ineffective, and in fact may be counterproductive in that the cost to administer them is higher than any savings realized. It is recommended that the QDR:

- Address the need for accounting processes and systems that will enable the Agency to accurately determine costs and justify prices.

- Examine usage-based billing practices to determine their effectiveness.

F. Information technology personnel

DISA and the rest of DoD are facing major challenges in hiring and retaining highly qualified information technology personnel. In addition, many DISA billets are not designated as joint and are not considered career enhancing. It is recommended that the QDR address the issue and evaluate options to:

- Increase flexibility in hiring and compensation practices

- Increase use of contractor support where appropriate

- Increase the number of billets that are joint designated.

III. DEFENSE FINANCE AND ACCOUNTING SERVICE

I. MISSION

A. Mission, vision, and goals

The mission of the Defense Finance and Accounting Service (DFAS) is to "Provide responsive, professional finance and accounting services to the Department of Defense."

DFAS' vision is to be the:

- World-class provider of finance and accounting services, with a strong corporate identity.
- Trusted, innovative financial advisor.
- Employer of choice, providing a progressive and professional work environment.
- Competitive, best value to customers.

DFAS has established the following major goals toward realization of this vision:

- Improve the delivery, accuracy, and timeliness of finance and accounting services.
- Leverage technology and change processes to improve performance and reduce costs.
- Ensure financial information is timely, useful, and responsive to customer needs for decision making.
- Develop and deliver creative solutions to serve customers' needs and exceed their expectations.
- Ensure employees are well-trained, equipped, and adaptable to change in the organization inspired by trust, open communication, and teamwork.
- Create an environment that fosters and rewards extraordinary contributions.
- Maintain an aggressive internal control program to ensure proper stewardship of DoD resources.

B. Origins and rationale

The decision to centralize finance and accounting services within DoD was recorded in DMRD 910 in the fall of 1990. DFAS was established in January 1991 as a working capital fund entity by capitalizing the personnel, systems, and physical assets of finance and accounting activities throughout DoD, primarily from the Military

Departments. Most of this capitalization was done in the first two years, although it continued through 1996, when Service operations in Europe were capitalized.

The consolidation of finance and accounting services was intended to provide better service at lower cost through the reengineering and standardization of business processes, the consolidation of operations, and the elimination of redundant and often outmoded supporting systems. As DFAS was beginning to take these actions, government-wide financial management reforms were mandated in the Chief Financial Officers Act and subsequent legislation, and the DoD Comptroller began to insist on strict compliance with existing financial management regulations and the elimination of a large backlog of errors in financial records. Thus DFAS has a mandate for change in almost every aspect of DoD's financial operations. These objectives sometimes conflict, since actions necessary to achieve the objectives of consolidation, reengineering, and elimination of redundant systems result in loss of expertise and other disruptions that, in the short run, reduce the quality and timeliness of service and impede achievement of the other objectives, such as the elimination of errors in DoD's records.

A second rationale for consolidation—not part of the official record but implicit in the debate—was that reforming financial management would be relatively easier if primary responsibility lay with an agency that reported to OSD than if that responsibility remained with the Services.

C. Functions, customers, products, and resources

DFAS provides the full range of finance and accounting services throughout DoD.[1] DFAS is responsible for financial management policies, procedures, and systems and for making many of the changes necessary to bring DoD into compliance with government-wide financial management standards. (Its customers also have a major role to pay in bringing feeder processes and systems up to standards.) DFAS also has oversight of several financial services, such as overseas banking and government credit cards.

In DFAS' terminology, a client is a major organization (e.g., a Military Department or other Defense Agency) with which DFAS plans to have a formal agreement for the delivery of services, known as a service level agreement (SLA). (These are being developed for each client and business line.) Each client has a client executive who serves as his primary point of contact and client service executives for the business or product lines it receives.[2] This team is responsible for achieving the goals of the SLA.

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[1] The number of financial management billets retained by the Services has been estimated to be between 17,300 and 21,000. These billets are largely at headquarters for managerial accounting or in deployable units for financial operations that must be done in the field. Additionally, there are some instances in which organizations retained responsibility for functions that DFAS performs for most of DoD, e.g., the Corps of Engineers and the intelligence community.

[2] There also are client development executives responsible for business development.

SLAs and these client/customer interface arrangements are relatively new, so their success cannot yet be determined. They do, however, follow the model widely used in business.

A customer is an individual or organization that receives a service. For its customers, DFAS has three business lines and a total of 14 product lines, as shown in Table 1. (Some product lines likely will be consolidated in the future.) DFAS' customers for day-to-day finance and accounting services include managers in headquarters and the field; individual military members, civilian employees, and retirees; and vendors and contractors. DFAS' customers for financial management reform are managers in OSD and the Military Department headquarters who are held responsible for meeting government-wide financial management standards by the administration and Congress.

In FY2001, DFAS is budgeted to have about $1.6B in revenues and expenses and to employ 18,629 work years, distributed as shown in Table 1. This is programmed to fall to about $1.4B and 15,289 work years in FY2005. (The last row in the table—Support to Others—covers services for which unit costs have not yet been established or are not appropriate. It constitutes only four percent of DFAS' work.)

D.   Interview results

No one we interviewed and none of the reports we read questioned that:

- DoD must receive, from some source, the services that DFAS provides;
- some of DFAS' work is inherently governmental (e.g., policy and oversight);
- consolidation has produced savings in manpower and dollars and that further savings are possible; and
- DFAS should consider using the private sector in some way for all of its work that is not inherently governmental.

No one suggested disestablishing DFAS and returning responsibility for finance and accounting to the DoD Components. We heard several concerns with delivery of specific services to particular customers, most notably military pay in the Navy and late payments to vendors that result in interest penalties. Most of those who voiced general criticisms were concerned that the pace of change was not fast enough, particularly concerning use of the private sector, and that DFAS' A-76 competitions were biased against the private sector. Several of those with whom we spoke also opined that DFAS is not adequately responsive to customer concerns and priorities.

Table 1: DFAS Mission and Functions

Mission Statement					
Provide responsive, professional finance and accounting services to the Department of Defense.					
Function	**Total $M (% for Mpr)**	**Pricing Mechanism (All WCF)**	**Rationale**	**Performer**	**Customers**
FM Policy	NA	HQ function apportioned across all rates	Common product	Inherently civilian governmental	All DoD
FM Reform	NA	In rates for applicable products	Common requirement	Inherently civilian governmental	Senior OSD & MilDep FM managers
Misc Common Services	NA	HQ function apportioned across all rates	Common services	Inherently civilian governmental	All DoD
Civ & Mil Pay Military Civilian Retiree Annuitant Debt Col'n Garnishmnt Travel	 251 (52) 49 (48) 57 (57) 12 (63) 22 (70) NA 64 (66)	Per payroll account or per action	Common services	Most work is not inherently governmental	All DoD personnel, retires, & annuitants
Comm'l Pay Vendor Contractor Trans Debt Coll.	 176 (62) 125 (59) 21 (48) 1 (81)	Per action	Common services	Most work is not inherently governmental	All DoD organizations with procurement authority & all vendors
Accounting Field Deptmntl Disbursing For: FMS Commissaries All Other	 37 (73) 9 (63) 723 (54)	Per hour for accounting; per action for disbursing	Common services	Most work is not inherently governmental	All DoD activities that receive accounting reports
Support to Others	66 (26)				

We heard concern about the adoption of enterprise resource planning (ERP) systems, which is being done or considered by a number of organizations throughout DoD. Two modes of integration are under way within DoD: integration within functional areas (e.g., finance and accounting and personnel) and integration across functions within organizations. Either mode may be best in any particular situation. Even if the financial modules of these ERP systems comply with government-wide and DoD requirements, use of these modules would result in growth in the number of financial systems, and therefore financial system costs, within DoD. Current OSD policy, as reflected in PBD 427 dated January 19, 2001, permits use of some financial modules of ERP systems provided *inter alia* that they meet DoD standards and interface with DoD standard systems. (This seems to preclude use of pay and disbursing modules, but permit use of accounting modules below the Departmental level.) An MOU with DFAS is required for each such system.

E.   Assessment and issues

Consolidation/Standardization. A growing body of law and government-wide regulation mandate many financial management practices, and the need to prepare consolidated DoD financial statements necessitates enough standardization of financial management practices to collect required data using standard business rules. We suggest no issue about standardization of policy and practices.

This same body of law and regulation results in no (or few) differences among the Services and Agencies in finance (payment) services, such as civilian pay or debt collection. This makes a compelling case for use of standard systems in these cases, and DFAS is well along in its plan to have only nine finance systems, each of which will be standard across DoD. We are unaware of any analysis that demonstrates that the economies of scale are greater for DoD-wide finance operations than they would be if operations had been left within the individual Services and Agencies in these instances. On the other hand, no one we interviewed suggested giving total responsibility for these operations back, and we see no obvious advantage to doing so. We suggest no issues about standardization of finance systems and operations.

Law and government-wide regulation also mandate many accounting requirements. Differences remain between the needs of appropriated fund and working capital fund activities, however, and among organizations with operations of different complexities. Here, DFAS does not plan the degree of system standardization planned for finance systems. (The current plan includes 23 accounting systems.) Because of this, there will not be as much consolidation possible in accounting operations as in finance. As in the case of finance, we are aware of no quantitative case for the consolidation of

accounting operations, but we see no reason to return total responsibilities to the Services and Agencies now that they have been consolidated.

Provision of Services by the Government. As noted above, there is general agreement that DFAS should consider using the private sector in some way for all of its work that is not inherently governmental. The current Director told us he intends to compete all work that is not inherently governmental over the next five years.[3] Others have suggested that privatization of some services and public-private partnerships be considered, but we heard no strong case that either would offer advantages over outsourcing. The only possible issue we see here is the pace at which studies are initiated, which presently is limited by resources and concerns about disruption of the work force, especially those whose function already has been studied once.

Monopoly. DFAS has a *de facto* monopoly on most financial services in the short run, since few if any of the services it provides are available in the private sector exactly as DoD requires them. For example, the Navy recently discussed provision of military pay services with one of the major vendors of payroll services in the private sector. The vendor did not have the ability to determine military entitlements and thought it would take several years to develop such a capability. We believe DoD ought to reexamine giving DFAS a permanent monopoly if a customer can procure the same service less expensively from another source.[4] (On the other hand, we doubt a vendor would make the necessary investment in DoD-specific capabilities unless assured of a significant amount of business.)

II. PERFORMANCE

A. Metrics

DFAS' performance contract has both unit cost and quality metrics for most of its products. It also has metrics for corporate level initiatives. All these are computed for observed performance and most are based on a level of activity that includes contingency operations, but not a major war. DFAS has not been designated a combat support agency and has no measures related to estimated wartime performance. It does, however, have a corporate contingency plan that covers surge operations.

Table 2 shows selected metrics from DFAS' performance contract for FY2000 (the latest year for which actual performance is available). The table includes past performance, where available, and performance goals for these same metrics from the FY2001 performance contract (since the FY2002 contract is still under review).

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[3] Initially, DFAS had designated 85 percent of its spaces as inherently governmental, but it has reduced this to 16 percent.

[4] Such vendors would have to comply with government-wide and DoD requirements and be able to transmit financial data to DFAS as needed for any services DFAS still provides (e.g., consolidated financial reports).

Table 2: Performance Metrics

	FY1998 Actual	FY1999 Actual	FY2000 Goal	FY2000 Actual	FY2001 Goal	FY2005 Goal
Military and Civilian Pay						
Mil pay unit cost	$8.41	$6.99	$7.55	$7.08	$7.39	NA
Civilian pay unit cost	$3.69	$3.00	$3.10	$2.77	#3.19	NA
Pay calculations accurate	98%	99.2%civ 98.3%mil	98.1%	98.9%civ 99.1%mil	98.2%	98.5%
Pay delivered on time	99.5%	99.9%	99.6%	99.9%	99.6%	99.9%
Pay changes processed w/i one pay period	98.9%	99.4%civ 99.9%mil	99.1%	99.6%civ 100%mil	99.1%	99.5%
Pay problems resolved w/i 30 days	93%	98.6%civ 96.8%mil	96.0%	99.2%civ 98.1%mil	96%	99.5%
Temporary duty (TDY) pmts. accurate	NA	NA	95%	99.9%	95%	≥99%
Days to process a TDY action	NA	10	9	9	9	5
Commercial Payments						
MOCAS contracts unit cost	$87.60	$116.81	$119.76b	$110.38	$108.99	NA
Commercial invoices unit cost	$15.65	$19.38	$16.34b	$16.10	$15.57	NA
Travel vouchers unit cost	$14.58	$15.69	$12.73	$10.95	$12.84	NA
Commercial payments accurate	NA	NA	95%	99.6%	95%	NA
Timely payment of bills subject to the Prompt Payment Act	92%	94.1%	93%	**91.7%**	94%	95%
Reduce backlog of over-aged commercial payments	NA	NA	Down 15%	**Up 37%**	NA	NA
Reduce use of DTRS	NA	NA	Down 85%	**Down 27%**	Eliminate system	NA
Accounting						
Billable hour	NA	NA	$70.56	$70.36	$70.45	NA
Delivery time for SF 133	NA	17 days	16 days	16 days	15 days	12 days
Delivery time for AR 1307	NA	17 days	16 days	16 days	15 days	12 days
Delivery time for AR(M) 1002	NA	22 days	22days	21 days	20 days	17 days
Reduce NULOs	NA	2%	75%	77%	Hold at 75% of 9/98 baseline	NA
Reduce UMDs	NA	37%	75%	82%		NA
Reduce aged in-transit disbursements	NA	41%	75%	86%		NA
DFAS-wide						
Reduce total cost of operations			5%	5%	5%	NA
Consolidate production of checks, etc., at 3 sites			90%	98.3%	100%	100%
Conduct F&A electronically	NA	NA	70%	87%	75%	NA
Use electronic certification	NA	NA	70%	**0%**	25%	NA
Overall customer satisfaction	NA	Sat	Sat	Sat	Sat	NA
FM Training as % of payroll	NA	NA	3%	3.2%	3%	3%
Provide exec suite of training	NA	NA	40%	**30.6%**	Metric gone	NA
DFAS financial statements	NA	NA	Clean opinion	Met	Clean opinion	Clean opinion
A-76 studies	NA	NA	Initiate 1	Ann'ce 1		
Benchmark studies			Schedule	Met	Schedule	NA
Plan for post-pmt vendor audits			Develop	Met	NA	NA

Performance that did not meet the goal in FY2000 is bold faced. Comparable data are not available on performance before DFAS was created or, in most cases, during DFAS' early years.

In addition to the measures in the table, there were 6 metrics for new or improved performance measures, all of which were met, and 18 metrics related to systems. DFAS capitalized 127 finance systems and 197 accounting systems (324 total). As of the end of FY2000, there were 15 finance and 53 accounting systems remaining, bettering the goal for that year of 15 finance and 69 accounting systems. DFAS expects to have only 9 finance systems by the end of FY2003 and 23 accounting systems by the end of FY2005, for a total reduction of 90 percent. Except for two systems, DFAS met its goal of bringing systems that will not be eliminated into compliance with Federal Financial Management Improvement Act (FFMIA) requirements by the end of FY2000.

B. Interview results

We heard four general criticisms about the metrics in the performance contract:

- The DFAS contract has too many performance measures for a high-level document.

- On the other hand, measures that aggregate performance for DFAS as a whole are not adequate either to inform the Services of how well DFAS is doing for them or to pinpoint problems.

- Some improvement goals show gradual and smooth improvement rather than improvement in one or more steps that would indicate some specific improvement action; thus they do not appear to have a firm basis in specific improvement plans.

- Customers are not always aware of the cost to them of DFAS' achieving different levels of performance, so they sign up for attractive goals and then are unhappy with the bills.

Several people mentioned the specific problem of interest penalties for failure to pay bills on time, and DFAS' performance metrics clearly indicate this problem. The problem mentioned next-most-often was with military pay. Another criticism is that accounting reports are neither timely nor accurate and do not provide the sort of information needed by managers, especially those in business-like activities. Neither of these latter two complaints is evident from the performance metrics.

C. Assessment and issues

Overall. For FY2000, DFAS met the vast majority of its performance goals. Until more benchmarking studies are completed (see Section III), DoD can chart further improvement, but it will not be able to determine how much improvement is possible. The disconnect between DFAS good performance against established goals, in most cases, and the dissatisfaction expressed by many of those we interviewed, suggests that

some metrics may not be measuring the aspects of performance that are of concern to customers, e.g., accounting. In other cases, it may just reflect the fact that improvement cannot be made faster, particularly when the entire process it not within DFAS' control, e.g., military pay.

All Pay Except Military. We heard no major complaints about DFAS performance in those product lines where DFAS has completed the consolidation and modernization of supporting systems, most notably the entire Military and Civilian Pay business line except for military pay. The remaining issue for these product lines is whether DFAS can further reduce costs by additional reengineering of its processes and/or outsourcing the work.

Military Pay. Although DFAS is achieving its performance goals for military pay, an error rate of even 0.5 percent results in a large number of unhappy Service members. Errors occur not only within DFAS but also in the data provided to DFAS. If the data DFAS received on civilians are inaccurate or late, DFAS is not credited with the inaccurate payment, but late or inaccurate data on military members do affect the computed performance. The draft performance contract for FY2002 commits DFAS to monitoring and reporting to the Defense Agency Task Force by agency and by system how much of the problem is caused by the data received and how much by processing within DFAS. The long-term solution that DoD has chosen is to develop and deploy a joint system that integrates personnel and pay functionality—the Defense Integrated Military Human Resources System (DIMHRS). Within the last year, the two functional communities agreed that a common database and pay functionality will be the first useful asset of DIMHRS. Once that part of DIMHRS is completed, the remaining question for DFAS will be whether its costs can be further reduced by additional reengineering of its processes and/or outsourcing the work.[5] Pay problems due to receipt of inaccurate or untimely data from the Services will remain, however, until Service personnel systems are replaced by DIMHRS. As discussed in more detail below, we believe the issue of how DoD best manages solutions to crosscutting problems like this is a major issue.

Accounting. Since DFAS is meeting its performance goals for the timeliness of accounting reports, we suggest two issues. There needs to be a dialogue between DFAS and its customers about what accounting reports are needed and how often and whether more frequent reports would be useful, even if based on data that have not been fully reviewed. There also is an apparent need for accuracy measures for accounting products.

Crosscutting Problems. Prompt, accurate payment of members and vendors and the preparation of accurate and timely accounting reports are examples of processes in which a Defense Agency plays a role but over which it does not have complete control.

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[5] The major source of problems within DFAS is the time required to add or modify entitlements when the law changes. This will be reduced in a modern system, but delays still may occur.

The link between personnel and pay has been discussed. Before a vendor can be paid, there must be adequate funds committed in the accounting system, a contract, a receiving report, and an invoice. Many late payments result from DoD's inability to assemble all this documentation in a timely manner in the current, paper-based system. Similarly, timely and accurate accounting reports depend on timely receipt of accurate data from numerous feeder systems in the acquisition, logistics, and personnel business areas, as well as the timely recording of commitments and obligations in the accounting system by the customer. These interface problems would remain if DFAS were to outsource its part of the process. DFAS is involved in a wide variety of internal and DoD-wide initiatives (in addition to DIMHRS) to move to a paperless environment and to ensure complete and accurate information, including the:

- Defense Procurement Payment System
- Standard Procurement System
- DFAS Corporate Database
- Electronic Document Management
- Electronic Document Access
- Electronic Data Interchange
- Web Invoicing System
- Vendor Pay Inquiry System
- Electronic Funds Transfer
- Employee/Member Self Service
- Intergovernmental Payment And Collections System.

Some of the necessary actions by the Services and Agencies are outlined in DFAS' performance contract. We believe the issue of how DoD best manages solutions to crosscutting problems like these is a major issue.

III. MANAGEMENT

A. Reporting structure

The Director and Deputy Director of DFAS are career members of the Senior Executive Service (SES); all other senior managers are career civil servants. DFAS has one flag-rank military billet, but it has not been filled for several years.

Initially, DFAS was organized largely along Service lines. In October 2000, management was reorganized along product lines.[6] In addition to the external business/product lines described earlier, DFAS has five internal support service business

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[6]   As redundant systems were eliminated during the 1990s, the product lines they supported already had migrated to one or a few locations (e.g., retiree and annuitant pay).

lines, such as resource management. Each business and product line is managed by a business or product line executive. The Director has performance contracts with business and product line executives, which incorporate appropriate subsets of the metrics in DFAS' performance contract and additional metrics. All of DFAS' members of the SES meet as the Leadership Council for two to three days each month to review progress against goals.

B.   External guidance and oversight

The OSD PSA for DFAS is the USD(C). His only recurring written guidance is the performance contract, but much verbal and written guidance have been provided *ad hoc* as specific problems arose and as a result of DoD-wide studies such as the DMR, QDR, and DRI. DFAS also receives guidance on accounting policy from the Deputy Chief Financial Officer within OUSD(C).

As is the case for all agencies, the improvements in performance shown in DFAS' performance contract are linked to its program only for unit costs and systems initiatives for which DFAS make the connection. Outside DFAS, development of the performance contract and review of progress is not connected to review of the DFAS POM. DFAS is, however, being considered as a test case for making such a linkage for the FY2003 program.

DFAS's budget is reviewed by the Director for Revolving Funds in OUSD(C). Once rates have been finalized, the performance contract is updated to reflect those rates and the associated workload.

The Director of DFAS meets weekly with the USD(C), the Assistant Secretaries of the Military Departments for Financial Management, and others with related responsibilities to discuss problems of mutual interest. A Board of Advisors, including four members from the private sector, was formed recently for DFAS to advise the Secretary and Deputy Secretary on "the mission of DFAS as it transforms its financial management operations, processes, and systems." Its first meeting was scheduled for April, 2001.

C.   Pricing practices and initiatives

For products in the Civilian and Military Pay and Commercial Pay business lines, DFAS charges customers by the payroll account or by the action for commercial pay. Accounting customers are charged by the billable hour. The latter is a recent change from charging by the trial balance, and has resulted in a reallocation of costs among specific customers, including components. It is consistent with commercial practice.

Unlike other agencies, DFAS' prices include almost nothing for surge capacity and no surcharges for costs that cannot be traced directly to a product. Unless DFAS can

consolidate operations further, however, it may have difficulty lowering its costs to commercial levels in some instances. This is part of a larger issue of whether customers should be charged for costs DoD must bear that do not relate directly to efficient provision of the good or service being provided.

The Director noted that price stabilization had precluded him from lowering prices as soon as he was able to complete cost-reducing initiatives and that he would like the flexibility to do this.

In most instances, the customer has no control over the quantity of services he buys. Use of the government purchase card, however, did result in a reduction in the number of bills for small purchases and was an incentive for customers to adopt the card. DFAS has begun to add footnotes to its bills when a customer can take action to lower a bill. DFAS is developing several specific initiatives to provide incentives to customers, including differentiating prices by customer, offering price reductions for increased use of electronic commerce, and relocating customer work when possible.

D.   DRI and other business practice initiatives

Activity-Based Costing (ABC) and Benchmarking Studies. DFAS' performance contract commits it to conducting ABC and benchmarking studies of each of nine functional areas[7] every five years, with the first cycle completed by FY2004.

In 1998-99, PriceWaterhouseCoopers performed ABC and benchmarking studies of DFAS' accounting business line. DFAS was compared to two other US Government agencies, two state governments, two large private corporations, and the Canadian MOD. The study suggested no measures of the cost of accounting services comparable to "cost per bill paid" or "cost per payroll account serviced." Measures included (1) the ratios of accounting workforce and costs to total entity workforce and revenue, and (2) the distribution of workforce effort and costs within the accounting function. Results varied widely among the non-DFAS entities, as well as between them and DFAS. The study is inconclusive in regard to DFAS' performance relative to external standards, although it points to some areas where DFAS may be able to make improvement.

In 2000, an ABC study of vendor pay forecast savings of 35 to 55 percent at most DFAS sites that do vendor pay once certain initiatives are completed. No companion benchmark study was done to determine the reasonableness of the final cost.

Also in 2000, DFAS conducted benchmarking studies of three specific processes: debt collection, the issuing of PINs to members for access to their payroll data, and month-end reporting. DFAS rated average to marginal compared to best practices. These studies identified many specific areas where improvement may be possible, and DFAS

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[7]   These are combinations of product lines.

believes detailed studies like these are the most useful ones. Costs were not included in these studies.

The cost of a civilian payroll account has fallen from $6.47 per account per pay period in FY1991[8] to around $3.18 this year (2001). A Defense Science Board review found private sector prices between $1.60 and $3.20. Given this wide range of prices in a competitive market, it seems unlikely they all are prices for the same set of services that DFAS provides.[9]

Outsourcing Studies. By August of 1999, DFAS had completed six outsourcing studies covering 1319 work years under the procedures of OMB Circular A-76. In every case, the work remained in DFAS, although development of DFAS' most efficient organization (MEO) will result in savings of 538 work years and $27M per year, starting in FY2001. In response to industry concerns that DFAS A-76 cost comparisons were not full and open, DFAS reviewed its entire A-76 process and implemented significant changes to provide a more competitive environment. These changes centered on five areas: (1) process, (2) communications strategy, (3) collaborative work environment, (4) A-76 agency training, and (5) strategic partnerships. As a result, DFAS' A-76 competitive sourcing program has alleviated previously stated industry concerns; the Business Executives for National Security recently complimented DFAS on its A-76 program. Three studies covering 1610 work years using the new process are expected to be completed by the end of FY2001—civilian pay, retiree and annuitant pay, and security assistance accounting.

PBD 710, dated December 22, 1998, directed DFAS to study 6280 civilian positions through FY2003 and to assume a gross savings of $100M through FY2003. During preparation of the FY2002 budget, the number of positions to be studied was revised to 7207 by FY2007. DFAS' performance contract for FY2001 and the draft for FY2002 provide general plans for the conduct of A-76 studies each year in each business line, but do not show which specific product line will be studied. Because of the need for Congressional notification, specific studies cannot be identified in the out-years of a performance contract.

Customer Surveys. In the biennial OSD survey of customer satisfaction with DFAS, the percentage of customers reporting satisfaction rarely exceeded 75 percent, and averaged about 50 percent. The one question about the quality of specific products still aggregated product lines, e.g., military and civilian payroll, so known differences between them and among the Services are not reflected.

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[8] A CNA review of DFAS cited initial costs of $14 per individual per month, but that was a monthly cost vice a cost per pay period.

[9] The vendor with whom the Navy discussed payroll services said that many of its customers retained complex entitlement determination processes, which DFAS does for DoD.

DFAS' performance contracts commit it to conduct customer satisfaction surveys every other year for each functional area. DFAS has been conducting surveys since 1998, using its own or contractor resources. Unlike the OSD survey, these are focused on the customers of a particular product. Survey results for FY2000 showed a somewhat higher level of satisfaction than reflected in the OSD survey. Beginning in FY2001, DFAS is using focus groups to tailor survey questions to product lines and employing the services of the Office of Personnel Management to conduct the survey. Once a survey is completed, the appropriate product and business line executives will develop and implement improvement actions.

We heard two general problems with customer surveys. First, some customers do not know where the problem lies, e.g., a Service member whose pay is wrong will blame DFAS not knowing that the problem most likely resulted from late or inaccurate data provided to DFAS by his Service. Second, but related, the questions need to be tailored to the responsibilities of the individual surveyed. It is possible for a respondent to be dissatisfied with a particular product but satisfied that DFAS is making progress as quickly as possible. Both problems need to be taken into account in the design of questions and the selection of those surveyed.

Contingency Plan. DFAS' Continuity of Operations (COOP) planning has been recognized as a Best Business Practice in the Federal Government. It adopted an automated COTS tool, the Living Disaster Recovery Planning System (LDRPS), which began in 1995. All of DFAS' COOP plans are automated, routinely updated, and backed-up on at each site and on off-site laptops. Because of its implementation of LDRPS and its efforts to avoid Y2K problems, OASD(C3I) recognized DFAS as having one of the best contingency plans in DoD.

E. Personnel and facilities management plans or initiatives

Site Consolidation. During 1991 and 1992, DFAS capitalized work at 338 locations. Work in Japan and Europe was capitalized in the mid-1990s. During the early and mid-1990s, work was consolidated into 26 locations.[10] Some of those we interviewed believe DFAS could consolidate work further, but this is not likely to be possible without base closure authority.

Workforce. DFAS began with an end strength of 11,000. Its maximum staffing was reached in FY1995 with an end strength of 27,000, which represented the net result of capitalization of additional positions and reductions made possible by reform initiatives, such as achieving economies of scale through site consolidation and the standardization of systems. The FY2002 President's budget showed DFAS at 18,629 work years at the end of FY2001 and at 15,289 work years by the end of FY2005. The

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[10]   DFAS also staffs 41 Defense Military Pay Offices (DMPO) at Army installations.

finance and accounting activity currently conducted by DFAS was previously performed by 32,252 personnel in the Military Departments and Defense Agencies. By the end of FY2005, DFAS will have accomplished a 47 percent reduction from that level. There is no goal in the performance contract for workforce, but workforce is a major factor in unit cost measures. In addition, DFAS is subject to the civilian workforce reduction mandated in the QDR of 1997, which required a 20 percent reduction from the end FY1997 baseline by end FY2003 (later slipped to FY2005).

As DFAS automates, the composition of its workforce will need to change from today's, which is predominately GS-5, 6, and 7s moving paper, to a smaller force of GS-11, 12, and 13s. As a result of consolidation and downsizing with little new hiring, there are relatively few mid-career civil servants in DFAS' workforce. The Director noted that "I've lost a generation." DFAS can offer competitive salaries and benefits to attract mid-career people from outside to take these positions in most of the cities where it operates, except the Washington DC area and Denver, and the government lifestyle is attractive to some people. DFAS' managers must learn to recruit, however. Additionally, the Director noted the need for tools to help with this restructuring, such as buy-out authority, job banding of skills, and authority to offer jobs on the spot as private sector employers now do at job fairs.

DFAS faces many of the same problems faced throughout the government. Information Technology specialists are especially hard to keep, despite the recent OPM decision to raise Series 334 salaries by 11-30 percent through grade 12. Too many of the current IT workforce have skills only in legacy systems. There is a significant problem across all the contracting agencies retaining contracting officers. Currently, 32 percent of the workforce is eligible for retirement, and this will increase to 47 percent in FY2003. As noted in Section II, DFAS had two performance goals for workforce training in its FY2000 contract; one was dropped in the FY2001 contract.

All Services continue to perform some financial management functions in units that deploy. We believe DoD ought to conduct a study to determine how much of this activity could be transferred to DFAS through further automation, and what the irreducible minimum need is for field-level financial management activities. DFAS and the Services believe there is value in having Service members work in DFAS so that DFAS understands these field activities, and vice-versa. There may be a problem maintaining this cross-pollination if activities are contracted out. DFAS also believes it has difficulty getting priority for its military billets because it is not a combat support agency.

F. Interview results

We often heard general comments about the need for better incentives for management at all agencies, including DFAS. Additionally, there is a general concern that requirements and resources in agencies do not compete against requirements and resources within the Services at any time during the PPBS. The perception is that agencies' needs are likely to be funded by OSD at the expense of Service programs, without consideration of tradeoffs.

We heard complaints that those who participated in development and review of DFAS' performance contracts, those who will sit on DFAS Board of Advisors, and members of the Defense Management Council (DMC) often do not have expertise in financial management and are too busy to devote the time required to effectively participate. We also received indications that there may not be adequate participation within the Services/Military Departments in developing positions for their representatives to these oversight activities.

We also heard the complaint that the prices assumed in developing the program often changed by the time the budget was completed, causing disruption in Service plans.

G. Assessment and issues

External Guidance and Oversight. Throughout most of the 1990s, USD(C) was heavily involved in guidance and oversight of DFAS and of related Component actions, including the development and implementation of specific solutions to problems. Thus, the general criticism that the OSD PSA is not actively involved in oversight does not apply in the case of DFAS.

The absence of clear linkages among performance improvement goals in the performance contract, specific initiatives and costs, and the DFAS program is a process problem that OSD is aware of and intends to fix. We believe OSD and the Components ought to ensure full participation by all interested parties in developing the Component position on the performance contract, SLA, and issues considered by DFAS' Board and the DMC. Component programmers should participate in the process, as well as financial managers and other customers, so that the Component can compare improvements in DFAS' performance against other uses of the marginal funds.

As in the case of all agencies, those involved in oversight of DFAS need to consider ways to provide meaningful incentives to managers throughout DFAS. The Director suggested a serious look at making DFAS a Performance-Based Organization.

Pricing. We found no major issues with DFAS' pricing scheme. As DoD decides how to link performance goals to programs, however, it should consider a two-tiered pricing scheme to provide incentives to customers to implement cost reducing initiatives.

Cost Reduction Initiatives. ABC will assist in (1) reengineering DFAS' processes for greater efficiency, (2) providing accurate data for outsourcing studies, and (3) estimating the savings from specific cost-reduction initiatives for use in establishing performance goals and linking the performance contract to the program. Benchmarking, when possible, will assist in establishing performance goals and selecting promising candidates for outsourcing. If there is any issue here, it is the speed with which studies can be completed.

Although the work that DFAS might outsource is not inherently governmental, it is essential that people and vendors be paid in a timely manner and there are legal requirements for many accounting actions and products. As noted, most of this work is not done in the private sector exactly as DoD requires it, so a vendor would have to make an investment in systems and people to take over the work. If outsourcing merely trades an internal monopoly for an external one, the projected benefits may not last. Additionally, essential services would be vulnerable to disruption. One issue is whether DFAS should divide work among two or more vendors to maintain competition even if that increases costs slightly. (The pace of studies already has been mentioned as an issue.)

Like all agencies, DFAS will need base closure authority to make the further consolidations that many people think are possible. Additionally, DFAS needs greater flexibility in personnel management to shape its workforce and attract and retain the skills it will need in the future. We suggest no issues here of which DoD is not well aware.

IV. CANDIDATE QDR ISSUES

In the final part of Sections I through III, a number of issues and ideas were mentioned that we believe merit consideration by DoD. This section notes three that may rise to the level of importance appropriate for the QDR. All of these likely apply to more agencies than just DFAS.

Monopoly. Should DFAS have a permanent monopoly to provide services either in-house or by contract, or should customers be able to arrange their own sources provided (1) these sources comply with government-wide and DoD requirements and can transmit financial data to DFAS as needed for services DFAS still provides, and (2) the total cost to DoD does not increase? It seems likely that the provisions of OMB circular A-76 would apply to outsourcing by individual customers, since work now done by government employees would be moved to the private sector.[11] DoD would need to consider how it would follow A-76 procedures in such cases, since they are not well

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[11] Even if A-76 did not apply, some form of cost analysis may be required by several other provisions of public law.

suited to evaluating the outsourcing of a particular service for only one or a few of the customers of the service-providing organization.

Integration of the Performance Contract into the Program. For DFAS, a process like the one outlined below might eventually be made to work successfully, solving several of the problems we heard about.

- USD(C) gives guidance on any initiatives DFAS must undertake to meet externally imposed requirements or to complete its part of DoD-wide initiatives.
- DFAS develops SLAs with each client, including only goals directly related to the price and quality of the products the client buys. Performance goals are tied to specific initiatives to be undertaken by DFAS and the client, with full consideration of costs. This solves the problem of lack of visibility into DFAS performance vis-à-vis individual clients. If both the client's finance and accounting managers and its programmers participate in this process, this allows the client to trade improvements in DFAS' performance against other uses of the client's funds.
- USD(C), advised by the DFAS Board of Advisors, resolves conflicts among these agreements (e.g., if only one client wanted DFAS to undertake an initiative that would benefit all of them) and the SLAs are adjusted accordingly.
- The goals in these detailed agreements are aggregated to determine DoD-wide goals for the performance contract. Goals for steps DFAS must take necessary to meet these performance goals (e.g., system-related goals) are put into performance contracts between the Director and appropriate subordinates. These two steps will reduce the number of measures in the high-level contract and the number that DFAS must negotiate with its clients.
- The initiatives agreed to in the SLAs become the basis for the DFAS POM and Component POMs, if they depend on client initiatives.

Management of Crosscutting Initiatives. Our review of DFAS provides three examples of such issues:

- Pay, which cuts across DFAS and the Services as well as the personnel and pay functions,
- Vendor pay, which cuts across DFAS and all Components as well as the commercial pay, acquisition, and logistics functions, and
- Accounting, which cuts across DFAS and all Components as well as the accounting, acquisition, logistics, and personnel functions.

IV. THE DEFENSE SECURITY SERVICE

The Defense Security Service (DSS) was established in 1979 to consolidate personnel security investigations, which previously had been supported by independent investigative organizations within each of the Services. Within five years of that time, the responsibility for industrial security oversight was assigned to DSS, and it picked up its third function, security training, shortly thereafter.

DSS stands by itself among DoD agencies in having the lowest customer approval ratings. These result from severe backlogs in the Personnel Security Investigation (PSI) process, which began with an un-funded mandate for substantial increases in clearance reinvestigations in 1996 and increased with the failure of an automated management control system installed in October of 1998. The backlogs and the consequent delays in processing security clearance requests are seriously affecting the security posture of DoD. Clearing the backlogs is the central issue for the Agency and for DoD.

I. MISSION

Personnel security investigations of several types are required. They must establish a level of trustworthiness for a determination of whether security clearances of various levels (e.g., Confidential, Secret, or Top Secret) should be granted, and whether the person should be found qualified to perform critical tasks, such as custodian of nuclear weapons. The basic level of investigation, required for Confidential and interim Secret clearances, includes a National Agency Check (of criminal records through the FBI), a local agency check (of local police records), and a commercial credit check. The more complete type of investigation, required for higher level clearances, covers an additional nine checks, including neighborhoods, employers, and educational background, along with interviews of character references identified by the individual and with other investigative leads developed by the investigators. The scope of both type investigations is explicitly defined by national standards, and both are conducted by the Federal Office of Personnel and Management (OPM), as well as by DSS. The results obtained by OPM and DSS investigators are used interchangeably by the Central Adjudication Facilities, which grant the clearances.

Industrial Security Oversight is the process by which DoD ensures that DoD contractors, who have been granted facility clearances in order to hold or process classified information, are observing the mandated procedures and practices as presented in the National Industrial Security Program Operating Manual (NISPOM). This oversight

requires an initial inspection in the process of granting the initial facility clearance, and periodic reinvestigations.

Originally, the scope of security training was oriented towards the personnel security and industrial security investigators employed by DSS itself. The current scope of the training, now housed in the DSS Academy, is increasing to cover DoD-wide security training requirements as the need for them is identified and validated. Recently, the DoD Polygraph Institute, formerly supported by the Army, was placed under DSS. The training and education effort consumes only one to two percent of DSS resources.

The rationale behind why these functions were assigned to DSS is characterized in Table 1. Four observations cover the main message of the table:

- The functions are inherently governmental to varying degrees, but no independent commercial alternative is evident in any case.

- Consolidation of these functions into a single agency, rather than spreading them out across each of the Services, achieves significant economies of scale.

- The most important reason for consolidation is that applying all three functions consistently across DoD is critical to overall security. The results of the process are the explicit vetting of the subject individuals and organizations as trusted insiders. The level of the weakest performer is the effective measure that applies to DoD security in protecting critical information.

- The impact of current policy, as outlined in Joint Vision 2020, is the emphasis placed on the free sharing of needed information among DoD warfighters and the people and organizations supporting them. This makes it particularly important to attribute trustworthiness correctly.

Of the three functions (see Table 1), industrial security oversight is the most inherently governmental. It would serve little purpose for the government to hire an independent contractor to provide oversight of other contractors. Personnel security may be less inherently governmental in cases where security clearances are awarded to individuals with clean records (it may not matter who wields the rubber stamp). However, when adverse material is uncovered by investigations, the clearance processes can turn highly adversarial, and individual rights can come directly into conflict with government prerogatives to protect critical information by denying access. The adjudication of these cases clearly is inherently governmental. The determination of the requirement for and the content of security training and education also is a governmental function, but the instructors could be either government or contractor. In fact, contractors are used extensively for personnel investigations and for other DSS functions, but for none of these three functions does a significant commercial market providing relevant services for customers outside of DoD and the Intelligence Community exist.

Table 1. Characterization of the Functions Supported by DSS

Function	Rationale for Assignment to an Agency	Nature of Function	Customers
Personnel Security Investigations	Requirements for this service are common across all of DoD; consistency and uniformity of standards are critical	Adjudication is inherently governmental, at least where adverse findings are uncovered	All DoD: Services, Agencies, Joint Organizations
Industrial Security Oversight	Requirements for this service are common across all of DoD; consistency and uniformity of standards are critical	Inherently governmental	
Security Education and Training	Requirements for this service are common across all of DoD; consistency and uniformity of process and procedures taught are critical	Not necessarily inherently governmental	

Both personnel security investigations and industrial security oversight require extensive organizational infrastructure distributed across the country, not necessarily restricted to locations where DoD personnel now reside. DSS has personnel distributed in each of the 50 states, according to the needs of clearance investigations (i.e., covering where DoD personnel came from, not where they are now employed). The assignment of these functions to DSS allows Service investigative organizations to focus their national organizations on providing investigative services for the more direct needs of their Services. This provides economies of scale.

Consistency and effectiveness of the security processes is the most critical consideration behind centralizing these functions in DSS. DSS personnel security investigations and industrial security clearances amount to explicit vetting of people and organizations as trusted. When the services are provided, they provide a measure of confidence in the trustworthiness of these people and organizations. However, when the services are delayed, as they frequently have been for the past several years (and delayed by more than a year), operational commanders can take two approaches:

- Waive the clearance requirements, accepting a measure of risk that some personnel do not warrant the level of trust that is placed in them.
- Prohibit individuals from performing their intended jobs.

Most often, the first approach is taken; that is, to waive the clearance requirement. The Navy spoke of a ship sailing recently from Norfolk with 2,500 of the crew of 3,500 not having received their requested clearances. The Marine Corps reported a standing backlog of nearly 100,000 outstanding requests against a set of only 50,000 billets requiring clearances—apparently many individuals having never received clearances before their replacements arrived. Generally waiving such requirements has an intangible

effect on operations; they proceed as if nothing is amiss. However, there is a (generally) invisible risk that the operations will be compromised, possibly in a catastrophic manner.

The second option, to prohibit individuals from performing their intended tasks, entails real economic costs. In those cases, the most appropriate person for the job may not be allowed to work; the work may be done by less capable alternatives or by imposing an increased workload on those who do have clearances. In many cases, the demands of the mission may not tolerate this alternative.

The bottom line is that security is often ignored with apparent impunity, but at the risk of catastrophic failure compromising high-level missions at inopportune times. The preferred alternative is for the security services to be consistent, effective, and timely.

II. PERFORMANCE

The overriding issue for DSS is the problem with the personnel security investigation process. The discussions below outline the end-to-end process as it currently exists and then describes at least the top-level problems. A final section addresses the other two functions, industrial security and security training.

A. An overview of the personnel security process

The end-to-end process associated with personnel security investigations is important because problems with that process have resulted in clearance request backlogs that are recognized as the major problem facing DSS, both within the Agency and across all of DoD. The general process is depicted in Figure 1.

Clearance requests are generated by personnel throughout DoD and normally submitted at the discretion of low-level unit commanders directly to DSS. Previously the forms were long paper forms that required significant data entry, but now electronic forms are used that eliminate the data entry step.

Clearance requests require four basic types of investigation:

- National Agency Check, Local Agency Check, and Credit Check (NACLC).
- NACLC/ Periodic Reinvestigation (PR).
- Single Scope Background Investigation (SSBI).
- SSBI/PR, sometimes termed Top Secret/PR.

The automated system at DSS that supports the clearance investigation process is the Case Control Management System (CCMS). The system contains a large database holding the status of each request. The CCMS has a tailored interface with two-way information exchange to the legacy Field Management System (FMS) that is used by the field offices to manage the assignment of leads to investigators in regional and local

office. Managers and investigators at Headquarters, DSS, can use the CCMS to manage status of cases and to generate queries to the FBI and commercial credit organizations for NAC and credit check information.
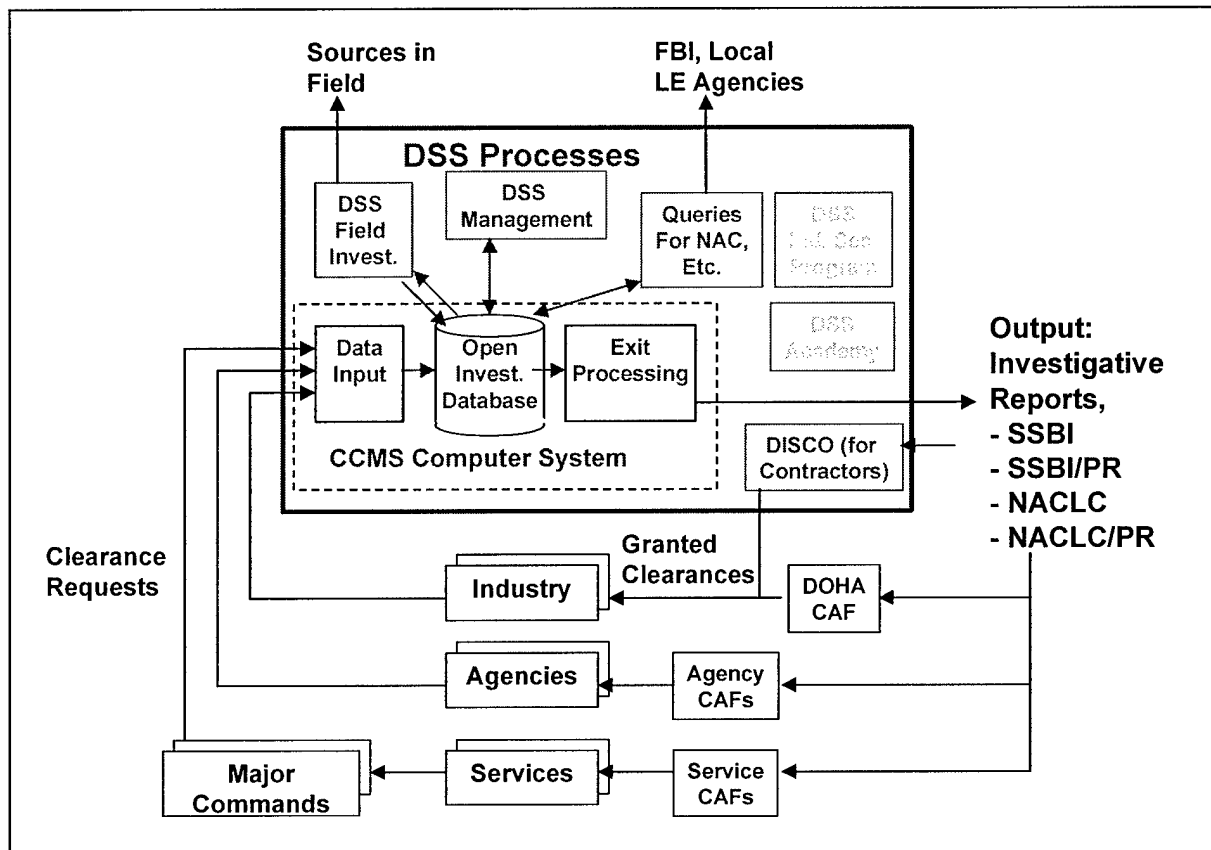
Figure 1. The End-to-End Process Associated with Personnel Security Clearances

As investigations reach completion, they pass through quality control and exit processing, and are provided to one of eight Central Adjudication Facilities (CAF) where the determinations of whether a clearance will be granted are made. In the case of contractors, DISCO (Defense Industrial Security Clearance Office) can make favorable determinations of clearances in cases with minimal adverse information, but others are referred to the CAF at the Defense Office of Hearings and Appeals (DOHA). In all, there are eight CAFs: Army, Navy, Air Force, DIA, NSA, Joint Staff, Washington Headquarters Services, and DOHA. The CAFs inform the requesting organizations of the outcomes of the clearance request adjudication.

B. Quality control issues

Although backlogs are the major problem (described frequently in the press and well known across all of DoD), there are a number of secondary and contributing

problems that may provide insight into fundamental causes and provide clues on how to fix them. Problems are evident on both the Service and DSS sides.

1. Errors in clearance request applications

Errors and omissions in the clearance request packages submitted by units across DoD constitute one of several factors that can delay the request processing and extend the time it takes to obtain a clearance. The submission of clearance request forms in electronic form simplifies the data entry problem, but it does not guarantee that the forms are filled out completely or that all essential information is provided. If the information is not provided, DSS must contact the requesting organization and have the forms re-submitted.

In addition to the electronic form, fingerprint cards are required, as well as signed waivers by the applicants authorizing DSS to conduct the application. These two physical items must be received and associated with the electronic request before the investigation can begin. Frequently they are late or missing, making this association difficult.

Problems of this type result in part from the ad hoc procedures employed by units across DoD in assembling the form. Responsibility for getting the materials together is normally assigned as a collateral duty to one person in each unit designated as a security manager. The security manager is responsible for a number of miscellaneous security-related duties. These range from overseeing the clearance requests to passing and receiving visit requests, to running unit security awareness programs, to overseeing the proper handling of classified documents (maintaining security containers, providing cover sheets and burning or shredding discarded classified material). Each of the Services periodically offers short-courses for training these people, but overall there is minimal oversight or awareness of how security managers perform their duties or the extent of the effort. Performance is likely to depend on the individuals themselves and the attitudes shown by the commanders of each unit.

2. Service ability to monitor pending clearance requests

An ability to accurately predict the numbers of future clearance requests is clearly central to the ability of DSS to function smoothly in the long term. Recently, the security policy section for the Navy Criminal Investigative Service was asked whether the number of security clearance requests from Navy elements was running above or below the projections that had been made earlier during the budget process. The central office was unable to answer the question because it had no insights on who was submitting clearance requests until after the clearance investigations were completed, which now often take more than a year to complete. There is no centralized oversight of the requests within the Services, either at the major command (or claimant) level or at the Service level.

The Navy security policy personnel also suggested that unit-level security managers requesting clearances received inadequate feedback from DSS. Frequently, after the requests go in and nothing is heard in response for more than six months, duplicate requests might be submitted to ensure that the requests are under consideration.

When asked about such issues, the DSS response was that the units could verify that the requests have been received through the DSS web site, and that such responses should be available within three working days of when the requests were submitted. They also indicated that reports could be generated from the on-line system for Service-level oversight of the processes. However, they did acknowledge that some desirable information, such as the major command/major claimant designation, was missing from those reports.

At a minimum, there appears to be an awareness gap between the collateral duty security managers who assemble and submit individual security clearance requests, and the means afforded by DSS and the automated CCMS system for the managers to verify that their requests are being processed. In addition, a similar gap appears to exist between Service CAFs and the CCMS report-generation capability and/or CCMS exhibits limited flexibility to generate reports that can be recognized by the CAFs as relevant to the management of their pending requests.

3. Stability of the CCMS

The Case Control Management System (CCMS) was intended to automate the investigation management process and to replace legacy systems that previously had provided semi-automated capabilities. However, when it was installed in October 1998, it failed to operate as intended and the instability of the system disrupted the investigation processes. The system was able to sustain an average of 1,085 cases per day[1] during FY 1999, whereas the stated goal for stable operations was approximately 2,500 per day. If the system could process 2,500 cases per day, it was thought it could stay ahead of the number of incoming clearance requests. The failure to meet the demand for clearance investigations over the following year because of this instability is in large measure the root cause of the current problems with backlogs.

DSS throughput rose from an average of 1,085 cases per day in FY 99 steadily throughout FY 2000. The rate rose to 2,650[2] per day through August and September of 2000, and apparently has been maintained at approximately that rate since that time.

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[1]   *DSS FY 2000 Annual Performance Report*, Defense Security Service, Alexandria, VA.

[2]   *DSS FY 2000 Annual Performance Report*, Defense Security Service, Alexandria, VA.

4. Omissions in reports of investigations

In reviewing a sample of approximately 500 investigation reports prepared by DSS, the GAO found at least some problems with over 90 percent of the cases examined.[3]

When asked about the quality problems, the Navy CAF personnel indicated that whereas the GAO reports may have overstated the problem, the quality problem is of significant concern. The Navy CAF currently has its own backlog of cases where investigative reports have been received but not yet adjudicated. While this backlog is more limited in scope than the DSS problems and should be corrected with hiring actions that are currently in progress, the receipt of incomplete investigative reports can substantially delay the adjudication process.

When adjudicators receive incomplete cases, the current procedure is to go to the individual's Major Command and attempt to collect the missing information informally through local investigative efforts. Only if the missing elements from the report are such that these ad hoc investigations are impractical will the CAF return the case to DSS. The problem to returning the case to DSS is that the case will go to the back of the queue, and the individual may wait another year for his or her clearance. In the presence of significant backlogs and delays in investigation, the limited numbers of cases returned to DSS by the CAFs probably understate problems associated with the quality of the investigative products.

C. Backlogs

The heart of the problems associated with the DSS personnel security investigation (PSI) program is the backlog of cases. In fact, there are two distinctly different backlogs, both estimated on the order of 500,000 cases, which is approximately the yearly throughput of the DSS PSI program. The first backlog is associated with the latency of the PSI process: clearance requests that have been received by DSS for which the investigations are not yet complete. Since it takes time to investigate cases, this backlog will never be zero, but it is now three to four times what it should ideally be. The second issue arises as a consequence of quotas being imposed on the Services for the number of clearance requests (primarily for periodic reinvestigation) that they can submit. Because of the limits, a number of clearance requests are being withheld that would be submitted if the quotas were lifted. Although it is currently difficult to estimate how many cases are in this category, they would potentially add to the latency backlog.

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[3] *Inadequate Personnel Security Investigations Pose National Security Risks*, U.S. General Accounting Office, GAO/NSIAD-00-12, October 1999.

The severity of the backlogs for the DSS personnel security clearance investigations can be seen in the metrics of Agency performance, as determined by OSD surveys. Sample results are shown in Figure 2, where the DSS PSI figures are shaded and the text enlarged to emphasize that section of the data. The overwhelming reason for the conspicuously low rating for DSS is the problem of the clearance backlogs and the extended waiting times for clearances that follow from the backlog.
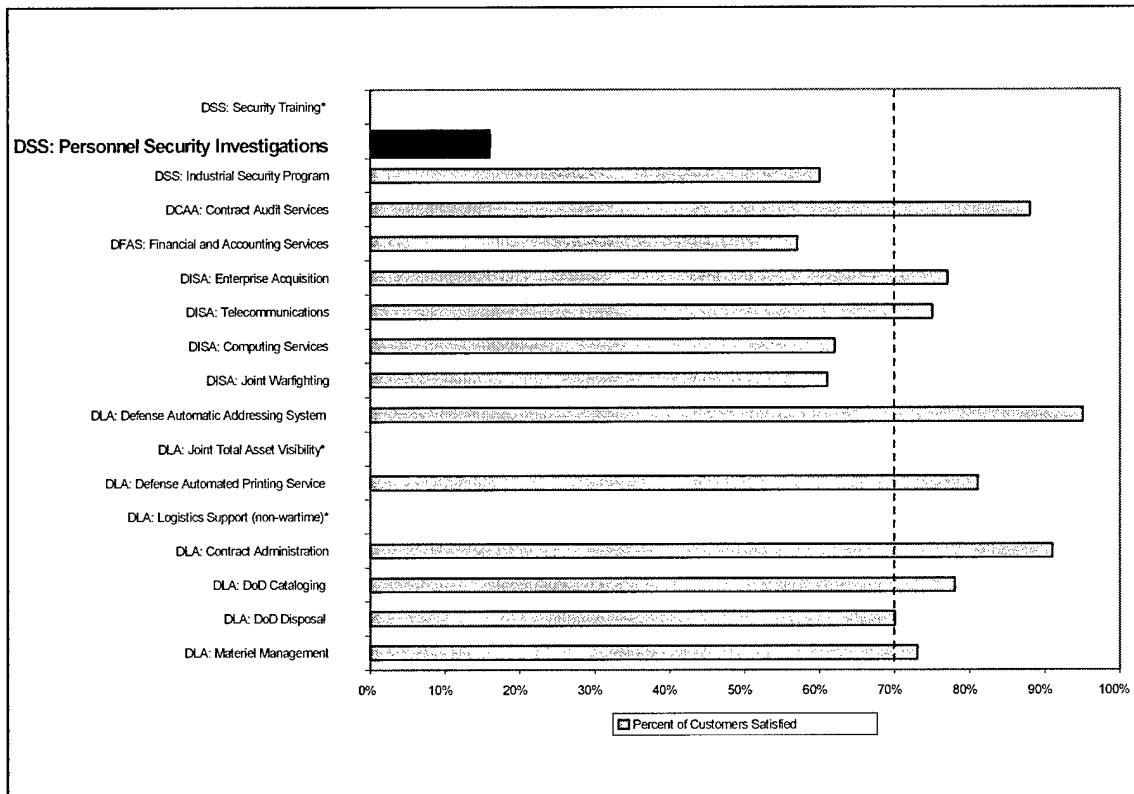
Figure 2. Agency Performance Metrics, as Determined by OSD Survey

1. Latency during the clearance investigation process

For the backlog associated with the latency of the clearance investigation process, the size of the backlog pool is far less significant than the additional time clearance requestors must wait in order for their investigations to be processed. The goals for timeliness take into account that some investigations are relatively easy and can be completed quickly, whereas others are more difficult, owing to a wide range of circumstances. The goal remains that everyone should receive an expeditious investigation.

DSS characterizes that wait in its FY 2000 Annual Performance Report, and key measures are summarized in Table 2. The goals are stated in terms of two points of a probability density diagram. The first point reflects the time in which 75 percent of the

cases should be handled. This covers an ample majority of the cases. The second stipulates that roughly 90 percent (most, or all but the most difficult cases) should be completed in a somewhat longer period of time. These goals are stated in such a way that the extremes, the shortest and the longest cases, have minimal impact on the measure. The goals are stated in terms of workdays (roughly 250 per calendar year).

Table 2. Timeliness of DSS Investigations, by Type of Investigation

Type of Investigation	Time to Completion (majority of cases)	Reported Performance	Time to Completion (most cases)	Reported Performance
SSBI	75% within 270 days	37%	90% within 300 days	46%
SSBI/PR	75% within 233 days	20%	90% within 300 days	45%
NACLC (PR)	75% within 120 days	10%	95% within 240 days	57%
Entry NAC			90% within 30 days	Not available

The statistics clearly reflect the waiting times experienced by those applying for clearances. Whereas most SSBI initial and PR investigations should be completed in a year or less, very few (20 to 40 percent) are completed that quickly, and over half take longer than 15 months. These time lines are becoming long, compared to typical rotation cycles for operational personnel. When the time to get a clearance becomes comparable to the time on-duty for a given assignment, we then see personnel getting cleared as they are leaving the positions, rather than as they are starting them.

Although the NACLC is a less complicated investigation and involves data queries to the FBI and commercial credit organizations, in most cases it does require investigators to follow leads to cover the local agency checks. Like the SSBIs, they are running far slower than the goals would indicate. FY 1999 was the first year the NACLC investigations were performed, and some of the delays can be attributed to the initial learning curve for this effort rather than the general difficulties associated with the SSBI investigations described above.

2. Backlogs developed through quotas on service clearance requests

On approximately five occasions during the past 20 years, OSD has imposed quotas on how many security clearance requests the Services can submit, in order to limit the kinds of latency problems described above. For most of those cases, the quotas have become necessary after sudden shifts in policies prescribing how often clearances must be periodically reinvestigated, without sufficient regard for whether sufficient investigative assets were in place to handle the increased workloads. The intention of the quotas is to allow the Services to individually prioritize which clearance requests are most important while equilibrium in investigations is reestablished.

Quotas have been in force since the summer of 1996, again motivated by changes in the reinvestigation interval. The interval for SSBIs was changed from 10 years to 7 years. In 1998, the reinvestigation period for Secret clearances was increased from 15 years to 10 years, and a new reinvestigation requirement was instituted for Confidential clearances after 15 years.

The current backlog of withheld clearances is known only within the limits of an educated guess. An integrated process team from the Service staffs indicated that the backlog was in the order of 600,000 to 900,000 in FY 1999. A more recent estimate from the summer of 2000 indicated a backlog of 318,000, assuming 98,000 of a previous estimate had been processed.

This "withhold" backlog is important because it is now contributing to the workload for the DSS investigators. Based on a steady-state requirement for investigations, DSS currently estimates that DoD should be requesting 1,700 clearances per workday. In fact, the current rate of requests is running as high as 3,000 per day as DoD organizations are trying to work down the withhold backlogs accumulated in recent years.

D. Other DSS security processes

The industrial security oversight process is almost entirely contained within the purview of DSS. The Air Force (and to a much lesser extent, the Navy) provides some oversight to contractors located on certain of its installations, but DSS provides most of the oversight of defense contractors across all of DoD. Contractors apply to DSS for facility clearances, and DSS manages the clearing determination and the reinvestigation schedules. Aside from a few concerns expressed about the priority afforded to industrial security oversight over previous years, the process now appears to be working, with performance measures in the vicinity of stated goals, even if not meeting or exceeding them.

The Service ratings of DSS-supported security training and education also appear not to be a major issue. DSS failed to meet some of its performance goals because the processes were limited the time required to hire new personnel, which is not under DSS control. In other areas, the number of courses offered did not meet early goals and projections.

III. IMPROVEMENT INITIATIVES

Personnel security is one of the cornerstones of U.S. security posture. In the report of the Joint Security Commission to the Secretary of Defense and the Director of Central

Intelligence in 1994[4], the chapter on personnel security was entitled, "Personnel Security—The First and Best Defense." The magnitude of the delays in investigating security clearance requests shown in Table 2 and the contrast of DSS to other defense agencies in the customer satisfaction ratings in Figure 2 indicate that this is an important problem that must be fixed.

Given the current PSI process and the problems that are evident, several approaches to fixing the problems present themselves:

- Actively and efficiently engage the existing workforce.
- Expand the available workforce by
  - Augmenting with contractors and DoD reservists
  - Moving some of the investigative load to OPM.
- In the longer term, develop means to accurately predict the workload in order to avoid creating backlog situations.

In view of the severity of the problems, all three approaches need consideration.

A. Automation for the investigation process

The Case Control Management System (CCMS) failed to work when it was first installed in late 1998, and the consequent disruption of the investigations contributed significantly to the current backlog problems. The problem has received considerable attention, and this project did not undertake any additional assessment of the system. It now appears that the system is operating well enough that it is no longer the main factor limiting the completion of investigative cases.

Indications from some of the interviews undertaken in the study indicate that the CCMS may have limited flexibility to provide meaningful reports and feedback to the requesting organization (both the requesting unit and the parent Service). It should be possible to transition gracefully to a more flexible system based on a separation of the data from the applications that support the management of the investigations. However, one of the highest current priorities is to maintain the stability of the CCMS system to avoid further disruption.

B. Resources and outsourcing

Expanding the workforce answers the most immediate problem—to overcome the backlog. This cannot be done quickly or easily if the current standards for quality and consistency are to be maintained. Consistent means of quality control must be established

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[4] *Redefining Security, A Report to the Secretary of Defense and the Director of Central Intelligence,* Joint Security Commission, February 1994.

as private investigators are placed on contract for this purpose. A current benchmark for a top-level investigator is five years experience.

Expanding the workforce can be done in several ways:

- Transferring some of the workload to Office of Personnel Management, which also performs security clearance investigations.
- Hiring more workers within DSS.
- Using National Guard and Reserve resources for investigations.
- Hiring contractors to follow leads or conduct certain investigations.

The Office of Personnel Management conducts investigations primarily for other Federal Agencies. OPM has a manual system (with some internal automation) that is operating smoothly, and it uses a fee-for-service funding mechanism that is operating generally as intended. OPM sets a baseline fee for each type of investigation (e.g., SSBI or NACLC) and with that fee presents a reasonable expectation of processing within a specified time period. However, for an increased fee, the requesting units can obtain faster processing of the requests, or for a reduced fee accept slower processing. OPM is organized to process only approximately 10 to 15 percent of the DoD case load, and it has agreed to investigate approximately 45,000 cases per year for DoD in order to help with the backlog problem.

The resource history and current projections for DSS, covering both work years expended from the DSS workforce and the funding expended by DSS, are shown in Figures 3 and 4. The figures show two distinct trends. The first, extending from FY 1990 to FY 1997, shows a steadily decreasing DSS workforce, but with relatively constant funding. The second period, from FY 1997 out to FY 2005, shows a level or slightly increasing workforce, with a significant boost in funding.

In both cases, the PSI investigations remain personnel-intensive, and the PSI funding primarily purchases investigators to investigate clearance requests. Thus the charts show that at least since FY 1997, DSS has been hiring roughly enough personnel to compensate for those retiring or otherwise leaving the Agency. Much of the additional funding since 1997 is going to support OPM investigations. The additional funding for DSS is being channeled into contractor support or support from Reserve and National Guard assets. DSS currently has contracts with five contractors and is in the process of qualifying additional contractors.
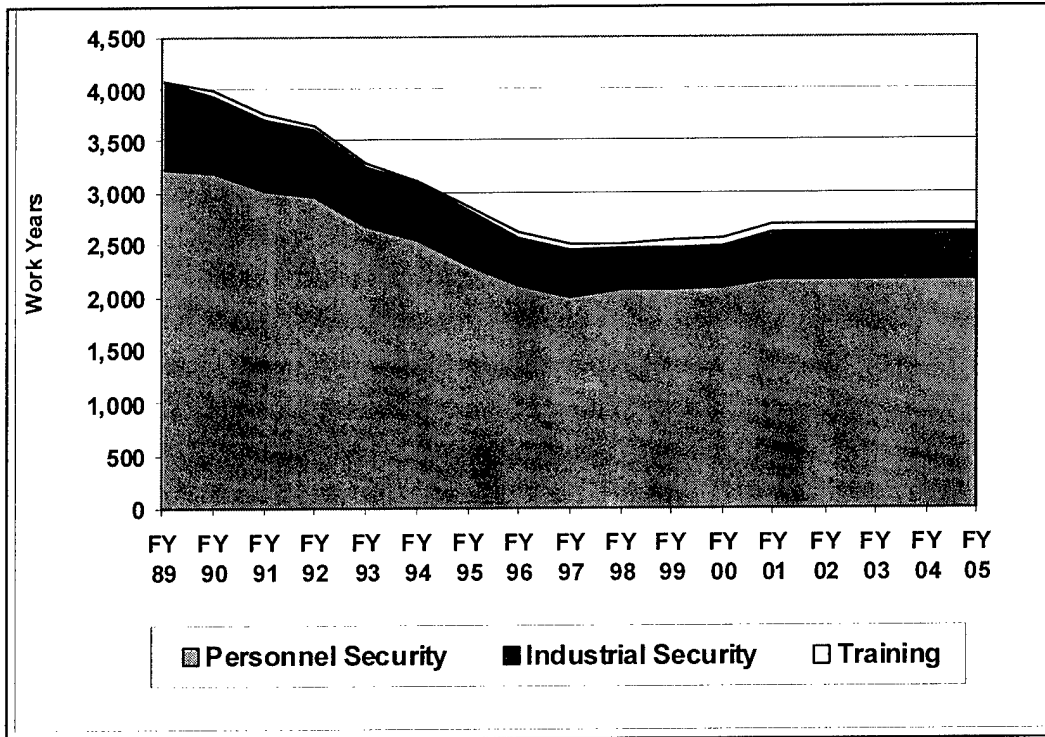
Figure 3. DSS Personnel End Strength
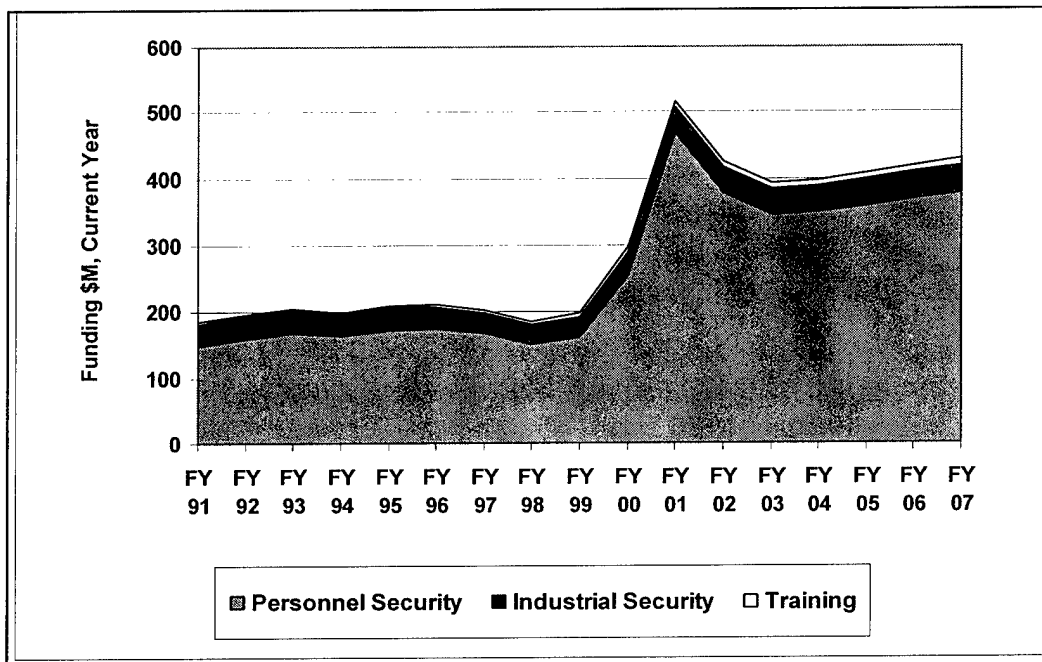
Figure 4. Funding for DSS

Overall, the increase in funding from FY 2000 to FY 2001 is substantial, more than doubling the available resources. However, because it may take time to expand the investigative workforce, some delay is likely before the benefits of the expanded funding are seen.

In qualifying contractors, DSS considers four factors: the contractor's management structure in place; the known performance record for government customers; the status of contractor training program for new hires; and the ability to insert government oversight into the contractor's quality assurance program. In the division of labor, the contractors primarily follow leads assigned by DSS. DSS performs the NACs, applies oversight to cases with serious derogatory material, and provides oversight for quality assurance. DSS maintains agreements with Service investigative organizations to perform investigations overseas.

An important limitation of outsourcing of this type is that contractors remain essentially a captive government workforce. Most of the current contractors do have customers other than DSS, but the customers often are other Federal government agencies, mostly from the intelligence community; there is little or no market for these services outside of the Federal government. Thus, they should not be treated the same as contractors engaged in functioning commercial markets where DoD is only one of many customers. DSS may not be directly responsible for maintaining its contractor workforce, but if the contractors are subjected to repeated periods of ramping up and then trimming down with no reasonable notice, the economies and flexibility afforded by this workforce will not last.

C. Predicting future workload

Placing more investigative resources on-line is the primary way to work off the current backlog; at some time in the future the backlog will be eliminated. At that point, the workforce will most likely be larger than would be required to reach equilibrium between incoming clearance requests and the completion rate of investigations. One approach might be to terminate one or more of the contracts for the outside workforce. Whereas that would be expected if DSS were tapping a viable commercial market for this support, the termination of contracts in a captive workforce such as is being established for PSI could lead to future workforce problems. At a minimum, it would lead to greater problems in trying to reestablish the workforce to meet crises in the future.

A better approach would be to develop the capability to predict future workloads in sufficient time to plan a graceful transition. DSS recognizes the need for such a capability and has proposed that the Services establish Central Requirements Offices (CRO) as counterparts to the Central Adjudication Facilities to manage the inflow of clearance requests to DSS and to help provide DSS with projected requirements for the Planning, Programming and Budgeting System. The assessment of this analysis is that the

CRO may be requesting more than the Services are prepared to provide, but that help from the Services in needed in two areas:

- Developing an analytical means to project clearance request requirements, based on data available in personnel databases and Service policies on rotation and programmed technological initiatives.

- Enforcing minimal levels of training, discipline, and responsiveness on the unit security managers responsible for submitting clearance requests.

Each of these issues will be discussed briefly.

1. The Central Requirements Offices proposal

DSS proposed the establishment of CROs as analogous offices to the existing Service Central Adjudication Facilities, at least in part to call attention to the need for assistance in making quantitative estimates of future workload. DSS frequently is given directives and priorities for performance without quantitative guidance on the numbers of investigations in each category that must be performed. DSS also points out that where requirement projections have been provided, as for the current spending plan, the numbers are proving to be inaccurate.

DSS proposes three main functions for the CRO:

- Voice Service priorities, both in general and in response to workload crises in the PSI process.

- Provide clearance request projections, in terms of quantities of each type of investigation, as inputs for the DSS PPBS process.

- Act as a clearing house for clearance requests, assuring that the requests are complete, accurate, and submitted only once.

According to DSS, the Services have not shown any enthusiasm for this concept. This calls for Service management at a level that is normally left to the discretion of many unit commanders, and the Services are in little better position than DSS to make accurate budgetary projections without a significant analytic effort to model the process that generates clearance requests.

2. Developing an analytic model of the clearance requirements process

Developing an understanding of the factors that generate clearance requests is clearly important to the long-term stability of the PSI process, and if developed soon might help to formulate more realistic estimates of when the current backlogs may be eliminated. The process of generating clearance requests is not a fully deterministic one, but it can be well understood and should be subject to reasonably straightforward analytic modeling. Developing such an analysis would be a DSS responsibility, since DSS is the

organization with greatest interest in the prediction. However, DSS will need support from the Services in the form of information, consultation, and review of the products.

Service personnel normally receive clearances as they enter certain career fields, but the clearances may lapse beyond the mandated reinvestigation periods when they are assigned to other duties during subsequent tours of duty. Normal practice is to reinstate the clearances by periodic reinvestigations when the personnel are again assigned to billets that require clearances. Clearances held by the current population of each career field are normally reflected in personnel databases maintained by the Services and by the Defense Manpower Data Center, and the date of the latest investigation is either present or could be added. The set of billets requiring security clearances of various types can be similarly analyzed and associated with the population in the appropriate career fields. Standard rotation rates and the numbers entering and leaving career fields are normally known and available to the Services.

Requirements for clearance for contractors can be empirically related to Service budgetary plans. While it would not be known ahead of time who will win major contracts, it is readily predictable that someone will win the contract, and the numbers of clearance requests resulting from the award may be rather insensitive to who wins the award.

Another factor that has historically upset the PSI process is abrupt shifts in the prescribed reinvestigation periods. These mandated investigation rates are related simply and directly to the numbers of requests for clearances generated. The puzzling aspect of the disruptions associated with this factor is that the reinvestigation rate is entirely, or at least within a reasonably wide margin, under the control of OSD policy makers. If the overall process were well understood, and the unit managers were responsive to policy mandates on reinvestigation intervals, the mandated intervals could be adjusted to manage the workload on DSS and to smooth out abrupt changes imposed by operations or other unexpected occurrences.

3. Improving responsiveness in security managers

In order for analytic estimates of clearance request workloads to be useful in estimating DSS PSI workloads, the general clearance submission process will need to be made more responsive to DoD policy makers. Currently, security managers, who are assigned their positions as collateral duties by many thousands of unit commanders throughout all Services and Agencies, release the requests. In most cases, the identities of these managers are unknown and unaccountable to central authorities even at the Major Command level, and there is no verification of the level of training or even their awareness of current policy.

Four changes in current practice would enhance responsiveness:

- Establishing a central list of security managers for each unit by name and personal (official) email address.

- Providing a means to verify that security managers have had or are scheduled to get sufficient training to function in their position.

- Establishing routine two-way communications between DSS and the unit security managers, providing the unit security managers security awareness materials from DSS for distribution to unit personnel, and providing DSS with estimates of local pending clearance requests.

- Providing some means for DSS to have access to unit commanders, perhaps through a responsible Service office, in order to establish some level of accountability of the security managers to DSS.

IV. SUPERVISION AND MANAGEMENT

DSS has had at least four years as a center of controversy over how it handles the PSI function. If there were any limitations to DSS responsiveness to centralized management in 1998, the limitations appear to be gone by now. DSS takes the strategic planning process, the performance contracts with the Defense Management Council, and the other oversight measures seriously.

Regardless of how DSS began its current backlog problems, it will clearly need a greater level of Service support to work past the problems in an expeditious manner and avoid similar problems in the future.

V. TRICARE MANAGEMENT ACTIVITY

I. MISSION

A. Mission, origins, and rationale

The Defense Health Program (DHP) is the portion of the DoD appropriation that provides funding for peacetime military medical and dental care, training of medical personnel, and readiness of all medical units. Before FY 1993, most funding for military medical care was appropriated directly to the three Military Departments. In anticipation of and planning for the implementation of a more uniform health benefit, some Operations and Maintenance (O&M) funding was transferred to the Office of the Secretary of Defense (OSD) beginning in FY 1992. By FY 1993, the consolidation of funding within OSD was completed with the establishment of the DHP. At that time, the Assistant Secretary of Defense for Health Affairs [ASD(HA)] became responsible not only for overseeing the Services' medical programs but for medical programming and resource management as well.

From 1967 until the mid-1990s, health care was provided in military hospitals and clinics, supplemented by a civilian indemnity program called the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). In response to continually escalating health care costs, congressional demands for a more uniform health care benefit, and hospital closings as a result of Base Realignment and Closure (BRAC) actions, the TRICARE program was established in FY 1995 and phased in on a regional basis through FY 1998. The program offers three choices to eligible beneficiaries, including an HMO-like program called "TRICARE Prime." As before, the foundation for care under TRICARE is the direct care system of military hospitals and clinics. Rather than supplement direct care with an unmanaged civilian indemnity plan, however, the TRICARE program awarded regional, fixed-price, at-risk managed care support contracts to civilian health care organizations to establish networks of providers and to manage all civilian-sector care.

Before the introduction of TRICARE, the Military Health System (MHS) was organized with certain DoD field activities—the Defense Medical Programs Activity, the Defense Medical Facilities Office, and the Office of CHAMPUS—reporting to the ASD(HA). In FY 1997, DoD Reform Initiative Directive (DRID) #14 ordered the establishment of the TRICARE Management Activity (TMA) as a DoD field operating activity reporting to the Under Secretary of Defense for Personnel and Readiness [USD(P&R)] through the ASD(HA), effective February 10, 1998. TMA was formed from

the consolidation of the TRICARE Support Office (formerly the Office of CHAMPUS), the Defense Medical Programs Activity, and the integration of the health management program functions located in OASD(HA). The intent of this organizational structure was to leave the responsibility for setting MHS policies within OASD(HA) but to transfer management and execution functions to TMA. TMA thus became responsible for managing and executing the DHP appropriation, as well as managing TRICARE and supporting the Services in its implementation.

B. Functions, products, resources, customers

Table 1 presents a concise summary of TMA's functions, products, and customers.

Table 1. TMA Functions, Products, and Customers

Functions	Products	Customers
Defense Unified Medical Program	Resource management, MHS policy guidelines and regulations, analyses, metrics, MHS optimization	Military departments, unified commanders, individual beneficiaries
Medical Facilities Construction	Hospital/clinic expansion, modernization	Military departments
IM/IT Program	Centralized and local computer systems/software	Military departments, unified commanders, OASD(HA)
MHS Acquisition Management	Managed care support contracts	Military departments, individual beneficiaries
Communications and Marketing Support	Marketing materials, web sites, stakeholders report	Military departments, individual beneficiaries

To this date, TMA still has no approved charter to formally invest it with its authorities, responsibilities, and functions. However, the Director, Administration and Management has proposed a charter, which states that the TMA shall:

- Manage the execution of policy issued by the ASD(HA) in the administration of all authorized DoD medical and dental programs;

- Serve as the program manager for TRICARE health and medical resources, exercising authority, direction, and control over the TRICARE programs, funding, and other resources within the Department of Defense;

- Prepare and submit for the Department's planning, programming, and budgeting system, the DoD Unified Medical Program and budget to provide resources for all health and medical activities within the Department;

- Manage and execute the DHP and the DoD Unified Medical Program accounts, including the Military Departments' execution of allocated funds;

- Exercise oversight, management, and program direction of information management/information technology (IM/IT) systems and programs as necessary to manage TRICARE and support the ASD(HA) in the administration of all authorized medical and dental programs;

- Contract for managed care support, dental support, other health programs, claims processing services, studies and research support, supplies, equipment, and other services necessary to carry out the TRICARE and civilian health care programs, and support the MHS;

- Provide beneficiary support, customer support, and information services; and

- Exercise oversight and program direction over each TRICARE Regional Office to ensure consistent implementation and management of MHS policies and uniform health benefit.

C. Interviews, assessments and issues

Even though funding and oversight responsibilities have been consolidated within OASD(HA) and TRICARE provides a more uniform benefit than ever before, the MHS is not and has never been a truly integrated health care system. The delivery of health care and the readiness mission is still performed by the Services, who assert their Title 10 authority and responsibilities. As a DoD Field Activity, TMA can define the goals and objectives of the MHS but has no authority over how or even if the Services implement them. In separate interviews, both the TMA Executive Director and senior staff expressed frustration with the fact that they have no charter and, consequently, no strategic vision of how the MHS fits in with overall DoD strategic planning. There has apparently been continual disagreement among OASD(HA), TMA, and the Services on the role of TMA, including funding levels, performance objectives, accountability, and oversight authority.

II. PERFORMANCE

A. Status of benchmarks and metrics

Since FY 1999, the ASD(HA) has submitted an annual Performance Contract to the USD(P&R) that conveys expectations for the performance of the DHP over the course of the FYDP. In the contract, the ASD(HA) lays out benchmarks, metrics, and a timetable for achieving performance standards in the areas of medical and dental care, training, and readiness. In FY 2000, the ASD(HA) met 7 of 12 measured goals. The goals it did not meet were cost per user ($2,317 vs. $2,230), cost per trained field medic ($4,321 vs. $4,120), beneficiary satisfaction with time to get an appointment (73 percent vs. 90 percent), beneficiary satisfaction with care (89 percent vs. 90 percent), and the active-duty preventable admission rate (3.2 percent vs. 2.8 percent). However, while acknowledging that the latter two measures had not reached their target levels, the ASD(HA) noted that those measures have been improving over time.

The contract also establishes goals for benchmarking MHS costs against civilian-sector costs. An earlier study—the so-called Section 733 Study—indicated that it is cheaper to produce care in the military system than in the civilian sector. The reasons include lower pay for military health care providers, minimal patient billing and claims filing expenses at military treatment facilities, and lack of indigent care. Another more rigorous study is underway to compare military with civilian costs. The comparison is complicated, however, by different benefit structures, populations served, and mixes of services performed in the military and civilian sectors. In addition, the MHS has a readiness mission that the Services argue is inseparable from the peacetime delivery of health care. The reason for the inseparability is that military health care providers must undergo continuous training to maintain their skills and to provide health care to family members of active-duty personnel stationed in less-developed countries. Thus any "make or buy" study must assess not only the costs of military- vs. civilian-sector care but the impact on readiness as well.

B. What the benchmarks and metrics show

The ASD(HA) Performance Contract is unusual in that many of its components are outside the scope of ASD(HA) and TMA control. Although the contract serves to define the goals and objectives of the MHS, the ASD(HA) has no direct authority or management control over the performance of the Services (it has an indirect impact on performance through policy, acquisition, and resource management decisions). Because the ASD(HA) has no authority to reward good performance or punish bad performance, the Performance Contract provides little incentive for improvement.

When asked what major initiatives had been undertaken to improve performance since TMA was established, the Executive Director cited the following:

(1) *MHS optimization.* This involves restructuring space, allocating personnel and equipment, adopting best clinical practices, and emphasizing population health (i.e., preventive care) to make the most efficient use of available resources and recapture network workload;

(2) *E-health.* This implements physician-based web pages where patients can schedule appointments, refill prescriptions by e-mail, enroll in or disenroll from TRICARE Prime, etc.; and

(3) *E-business.* This envisions electronic claims processing, referrals, and other web-based transactions. TMA management claims e-business will reduce claims processing costs from $8 to $1 per claim, and referral costs from $28 to $1 per referral. Using commercial benchmarks, they estimate that if web business is increased by 10 percent per year over the next 5 years, the government can save about $800 million. A demonstration of the e-business concept is currently underway.

C. Interview results

TMA management claims that its performance is improving and offers as examples greater collaboration with the Services, success of the TRICARE program in controlling costs relative to other large health care systems in the United States, increasing beneficiary satisfaction with care, and improved quality of care. Interviews with the Service Surgeons General (SG) staffs, however, revealed sharply different views of TMA performance. A universal concern was that while TMA controls all DHP programming and budgeting decisions, it must claim a portion of those resources for itself. Consequently, the SG staffs feel that when there is a shortfall in total DHP funding (as has been the case in recent years), the Services are the ones who have to suffer the cuts. They feel that a more equitable arrangement would be for all financial functions to be relocated to ASD(HA), making TMA one of four claimants for DHP resources.

Another common complaint is the acquisition and management of the Managed Care Support Contracts (MCSCs), which have been subject to numerous change orders and bid-price adjustments (some due to benefit enhancements imposed by Congress). The MCSCs are very complicated and cumbersome and contain certain provisions that some in DoD feel are more advantageous to the contractors than to the government. In the opinion of the Service SG staffs, the execution and management of these contracts were complicated by the fact that DoD did not have a good idea of what services and products it needed, what resources it had, or what level of direct-care workload it could provide. In addition, not all the information systems were in place that could support the requirements of the contract. As a result, there have been large annual adjustments to the contracts that require the Services to pay for the increases out of their direct-care funding. However, beneficiary demand for health care (which increases when benefits are enhanced) must still be met; if it cannot be provided in the direct care system because of a lack of funds, then beneficiaries are referred to the network for their care, resulting in higher network workload and costs. There has thus been a self-perpetuating cycle of MCSC cost escalations that eat ever deeper into direct-care funds, degrading readiness (because resources must be diverted to pay for the health benefit), and requiring the SGs to request additional funding from the Line.

TMA management feels that the Services are at least partly responsible for some of the inefficiencies in the direct care system. They claim that the Services have acknowledged some inefficiencies and that TMA and the Services have collaborated to reengineer business practices at military treatment facilities. Recently, TMA dedicated a specific staff unit to help the Services coordinate and accomplish a new "optimization plan." Together, TMA and the Services are making progress in implementing policies and business practices to improve the efficiency of the direct care system and reduce contractor costs.

D. Assessment

TMA has also tried to rectify some of the problems of the past by issuing a Request for Proposal for a new series of contracts in regions where the original contracts are due to be re-competed. Referred to as TRICARE 3.0 (the third generation of contracts), the intent is to focus more on outcomes (such as increasing beneficiary satisfaction with care and meeting prescribed access standards) than on processes, and to allow the contractors to use best commercial business practices. Based on a review and recommendation from KPMG Consulting, however, the Defense Medical Oversight Committee (DMOC—a high-level "advisory" committee for the DHP)—decided to prohibit TMA from implementing TRICARE 3.0. KPMG's Final Report to the DMOC (June 16, 2000) states "KPMG has significant concerns over the ability of TRICARE 3.0 to achieve two of its stated primary objectives: cost containment and improved beneficiary satisfaction." TMA management has expressed considerable frustration with this result, feeling that TRICARE 3.0 can be no worse than the current contracts, that it potentially offers the government significant savings, and that at least a demonstration project is warranted to test its feasibility. The Service SG staffs, on the other hand, are all of the opinion that TRICARE 3.0 is flawed and that the DMOC took the appropriate action.

III. MANAGEMENT

A. Structure

The Principal Staff Assistant for the DHP is the Under Secretary of Defense for Personnel and Readiness [USD(P&R)]. The ASD(HA) serves under the USD(P&R) as the principal advisor for all DoD health policies, programs, and activities. According to DoD Directive 5136.1, the ASD(HA) has authority, direction, and control over medical personnel, facilities, programs, funding, and other resources within the DoD. Pursuant to DRID #14, program health management functions, including the management and execution of the DHP, were delegated from OASD(HA) to TMA. The remaining OASD(HA) staff are charged with promulgating major health program policies and procedures and dealing with major DHP issues and initiatives that require the personal attention of the Secretary of Defense and OSD staff. However, the ASD(HA)'s authority, direction, and control over medical personnel, facilities, and other resources referred to in DoD Directive 5136.1 were not transferred to TMA. The result is that TMA has oversight management responsibilities with no direct authority. Although the TMA Executive Director is the program manager for most health and medical resources, the Service SGs remain the senior medical officials within the military departments, responsible for both the peacetime benefit and medical readiness of their departments.

B. Status of processes

In FY 1999, the Deputy Secretary of Defense convened a medical summit to discuss problems faced by the military health care system. The summit concluded that greater Service oversight was required in the operation of the health program and the establishment of health care benefits and budget priorities. As a consequence, the DMOC was formed in August 1999 with membership consisting of the USD(P&R), the ASD(HA), the Service Vice Chiefs, the military department Under Secretaries, the Under Secretary of Defense (Comptroller), the Joint Staff's Director for Logistics (J-4), and the Service SGs (the latter two are non-voting members). The DMOC is charged with reviewing, evaluating, and recommending benefit changes, program options, and resourcing decisions for the DHP. Like TMA, the DMOC remains without a charter.

Although the DMOC was established to provide oversight and advice on military health matters, some in OSD feel that it has exceeded its authority by undermining the authority of the ASD(HA). Because one of the DMOC's functions is to resolve resource problems for the DHP (DHP cost overruns have been taken out of Service budgets), there is a potential conflict of interest with a Service Vice Chief serving as co-chairman [with the USD(P&R)] in that there may be a tendency to ensure that Service budgets are protected. The TMA Executive Director and senior staff feel that the DMOC has done nothing to resolve resource problems and does not support the POM process. On the other hand, they also feel that the DMOC has become more knowledgeable about the MHS and why it is so costly. They point out that military health care faces many of the same problems the civilian sector does (such as escalating prescription drug costs) and that benefit enhancements are imposed by Congress and the DMOC without true understanding of the cost implications or additional funding to pay for them.

There have also been some problems with the consolidation of the TRICARE Support Office (now TMA–Aurora) into TMA. The two offices remain separated by geographical distance and each has its own personnel rules and procedures (e.g., working hours, overtime, and travel), making communication and coordination difficult. Further, the Services have expressed dissatisfaction with TMA–Aurora's performance with regard to contract costs, workload forecasting, and execution management. The Navy Medical Resources Branch proposes to consolidate TMA–Aurora with one of the Services' major systems acquisition offices.

C. Personnel and facilities management plans and initiatives

Because the ASD(HA) has been unable to exert full authority over the Services to integrate medical budgets, benefits, and programs, the FY 2000 National Defense Authorization Act mandated that the Secretary of Defense prepare and submit to Congress a study to identify ways to create a unified chain of command and budgeting authority for the DHP. Accordingly, the DMOC and the USD(P&R) commissioned two separate

studies to evaluate alternative consolidation models. The study for the DMOC is being conducted by KPMG Consulting, who is considering six alternatives to the current system as well as a local market structure as an alternative to the regional structure of TRICARE.[1] The RAND Corporation was chosen by the USD(P&R) to study the feasibility of a Joint Medical Command (MEDCOM). The organizational structure gaining the most currency within DoD is the Joint MEDCOM. The goal of the Joint MEDCOM is to provide a single individual with the commensurate authority and responsibility to manage and integrate the entire MHS, make necessary program trade-offs, and consolidate and redirect resources. Table 2, drawn from a KPMG briefing to the DMOC, compares the organizational features of the current system with those of a nominal Joint MEDCOM. Because details concerning the military chain of command are still unsettled, Table 2 represents only one possible scenario.

Table 2. Features of Alternative Organizational Structures

Feature	Current Organization	Joint MEDCOM
Governance	Unchartered	Secretary of Defense/ CJCS
Policy	ASD(HA), TMA, SGs	ASD(HA)
Operational Control	TMA, SGs	CINC, Joint Medical Task Forces (JMTFs)
Management Structure	Ad hoc committees, Lead Agents, SGs, Military Treatment Facilities (MTFs)	JMTFs, market managers
MTF Command and Control	Military departments	Military departments
Appropriation	DHP	DHP
Carve-outs[a]	TMA	CINC staff

[a] IM/IT, enrollment, claims processing, pharmacy management, contract acquisition and management.

D. Assessment and issues

Under the Joint MEDCOM structure, the ASD(HA) retains corporate-level policy guidance and program oversight of all defense health programs and resources. The MEDCOM would be established as a joint command with responsibility for integrating the Services' peacetime benefit and readiness missions. The chain of command would run from the Secretary of Defense, to the Commander-in-Chief (CINC) MEDCOM. Responsibility for the MEDCOM budget would be assigned to the command. The Services would provide input during the formulation of the budget, with CINCMEDCOM exercising oversight to ensure the budget reflects command priorities. The SGs and their

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[1] The KPMG study strongly suggests that one entity must control, and be held accountable for, both the direct care and purchased care resources in a market area if they are to be managed effectively together. Although some consider this to be the major thrust of the KPMG study, most of the sources we interviewed considered integration of the MHS to be the major issue for the QDR.

staffs, together with the Service medical functions, personnel, facilities, and resources would be consolidated into the MEDCOM. In addition, the SGs would serve as component commanders and provide advice to the CINC on both doctrine and medical requirements.

IV. CANDIDATE QDR ISSUE

Although not taking an official position on the Joint MEDCOM or any other organizational concept, the TMA Executive Director has indicated that he does endorse organizational change that supports integration of the military health care system. The Joint MEDCOM concept is also seen as the least-objectionable alternative by the Services. With a military chain of command, they feel that readiness would be given the attention it deserves. With other organizational alternatives, such as a Defense Health Agency, still on the table, an issue for the QDR is to determine which organizational structure best addresses the need for an integrated health care system, consolidates and saves resources, provides beneficiaries with the best possible health care system, and preserves readiness.

V. TRICARE MANAGEMENT ACTIVITY

I. MISSION

A. Mission, origins, and rationale

The Defense Health Program (DHP) is the portion of the DoD appropriation that provides funding for peacetime military medical and dental care, training of medical personnel, and readiness of all medical units. Before FY 1993, most funding for military medical care was appropriated directly to the three Military Departments. In anticipation of and planning for the implementation of a more uniform health benefit, some Operations and Maintenance (O&M) funding was transferred to the Office of the Secretary of Defense (OSD) beginning in FY 1992. By FY 1993, the consolidation of funding within OSD was completed with the establishment of the DHP. At that time, the Assistant Secretary of Defense for Health Affairs [ASD(HA)] became responsible not only for overseeing the Services' medical programs but for medical programming and resource management as well.

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TMA management claims that its performance is improving and offers as examples greater collaboration with the Services, success of the TRICARE program in controlling costs relative to other large health care systems in the United States, increasing beneficiary satisfaction with care, and improved quality of care. Interviews with the Service Surgeons General (SG) staffs, however, revealed sharply different views of TMA performance. A universal concern was that while TMA controls all DHP programming and budgeting decisions, it must claim a portion of those resources for itself. Consequently, the SG staffs feel that when there is a shortfall in total DHP funding (as has been the case in recent years), the Services are the ones who have to suffer the cuts. They feel that a more equitable arrangement would be for all financial functions to be relocated to ASD(HA), making TMA one of four claimants for DHP resources.

Another common complaint is the acquisition and management of the Managed Care Support Contracts (MCSCs), which have been subject to numerous change orders and bid-price adjustments (some due to benefit enhancements imposed by Congress). The MCSCs are very complicated and cumbersome and contain certain provisions that some in DoD feel are more advantageous to the contractors than to the government. In the opinion of the Service SG staffs, the execution and management of these contracts were complicated by the fact that DoD did not have a good idea of what services and products it needed, what resources it had, or what level of direct-care workload it could provide. In addition, not all the information systems were in place that could support the requirements of the contract. As a result, there have been large annual adjustments to the contracts that require the Services to pay for the increases out of their direct-care funding. However, beneficiary demand for health care (which increases when benefits are enhanced) must still be met; if it cannot be provided in the direct care system because of a lack of funds, then beneficiaries are referred to the network for their care, resulting in higher network workload and costs. There has thus been a self-perpetuating cycle of MCSC cost escalations that eat ever deeper into direct-care funds, degrading readiness (because resources must be diverted to pay for the health benefit), and requiring the SGs to request additional funding from the Line.

TMA management feels that the Services are at least partly responsible for some of the inefficiencies in the direct care system. They claim that the Services have acknowledged some inefficiencies and that TMA and the Services have collaborated to reengineer business practices at military treatment facilities. Recently, TMA dedicated a specific staff unit to help the Services coordinate and accomplish a new "optimization plan." Together, TMA and the Services are making progress in implementing policies and business practices to improve the efficiency of the direct care system and reduce contractor costs.

D. Assessment

TMA has also tried to rectify some of the problems of the past by issuing a Request for Proposal for a new series of contracts in regions where the original contracts are due to be re-competed. Referred to as TRICARE 3.0 (the third generation of contracts), the intent is to focus more on outcomes (such as increasing beneficiary satisfaction with care and meeting prescribed access standards) than on processes, and to allow the contractors to use best commercial business practices. Based on a review and recommendation from KPMG Consulting, however, the Defense Medical Oversight Committee (DMOC—a high-level "advisory" committee for the DHP)—decided to prohibit TMA from implementing TRICARE 3.0. KPMG's Final Report to the DMOC (June 16, 2000) states "KPMG has significant concerns over the ability of TRICARE 3.0 to achieve two of its stated primary objectives: cost containment and improved beneficiary satisfaction." TMA management has expressed considerable frustration with this result, feeling that TRICARE 3.0 can be no worse than the current contracts, that it potentially offers the government significant savings, and that at least a demonstration project is warranted to test its feasibility. The Service SG staffs, on the other hand, are all of the opinion that TRICARE 3.0 is flawed and that the DMOC took the appropriate action.

III. MANAGEMENT

A. Structure

The Principal Staff Assistant for the DHP is the Under Secretary of Defense for Personnel and Readiness [USD(P&R)]. The ASD(HA) serves under the USD(P&R) as the principal advisor for all DoD health policies, programs, and activities. According to DoD Directive 5136.1, the ASD(HA) has authority, direction, and control over medical personnel, facilities, programs, funding, and other resources within the DoD. Pursuant to DRID #14, program health management functions, including the management and execution of the DHP, were delegated from OASD(HA) to TMA. The remaining OASD(HA) staff are charged with promulgating major health program policies and procedures and dealing with major DHP issues and initiatives that require the personal attention of the Secretary of Defense and OSD staff. However, the ASD(HA)'s authority, direction, and control over medical personnel, facilities, and other resources referred to in DoD Directive 5136.1 were not transferred to TMA. The result is that TMA has oversight management responsibilities with no direct authority. Although the TMA Executive Director is the program manager for most health and medical resources, the Service SGs remain the senior medical officials within the military departments, responsible for both the peacetime benefit and medical readiness of their departments.

B. Status of processes

In FY 1999, the Deputy Secretary of Defense convened a medical summit to discuss problems faced by the military health care system. The summit concluded that greater Service oversight was required in the operation of the health program and the establishment of health care benefits and budget priorities. As a consequence, the DMOC was formed in August 1999 with membership consisting of the USD(P&R), the ASD(HA), the Service Vice Chiefs, the military department Under Secretaries, the Under Secretary of Defense (Comptroller), the Joint Staff's Director for Logistics (J-4), and the Service SGs (the latter two are non-voting members). The DMOC is charged with reviewing, evaluating, and recommending benefit changes, program options, and resourcing decisions for the DHP. Like TMA, the DMOC remains without a charter.

Although the DMOC was established to provide oversight and advice on military health matters, some in OSD feel that it has exceeded its authority by undermining the authority of the ASD(HA). Because one of the DMOC's functions is to resolve resource problems for the DHP (DHP cost overruns have been taken out of Service budgets), there is a potential conflict of interest with a Service Vice Chief serving as co-chairman [with the USD(P&R)] in that there may be a tendency to ensure that Service budgets are protected. The TMA Executive Director and senior staff feel that the DMOC has done nothing to resolve resource problems and does not support the POM process. On the other hand, they also feel that the DMOC has become more knowledgeable about the MHS and why it is so costly. They point out that military health care faces many of the same problems the civilian sector does (such as escalating prescription drug costs) and that benefit enhancements are imposed by Congress and the DMOC without true understanding of the cost implications or additional funding to pay for them.

There have also been some problems with the consolidation of the TRICARE Support Office (now TMA–Aurora) into TMA. The two offices remain separated by geographical distance and each has its own personnel rules and procedures (e.g., working hours, overtime, and travel), making communication and coordination difficult. Further, the Services have expressed dissatisfaction with TMA–Aurora's performance with regard to contract costs, workload forecasting, and execution management. The Navy Medical Resources Branch proposes to consolidate TMA–Aurora with one of the Services' major systems acquisition offices.

C. Personnel and facilities management plans and initiatives

Because the ASD(HA) has been unable to exert full authority over the Services to integrate medical budgets, benefits, and programs, the FY 2000 National Defense Authorization Act mandated that the Secretary of Defense prepare and submit to Congress a study to identify ways to create a unified chain of command and budgeting authority for the DHP. Accordingly, the DMOC and the USD(P&R) commissioned two separate

studies to evaluate alternative consolidation models. The study for the DMOC is being conducted by KPMG Consulting, who is considering six alternatives to the current system as well as a local market structure as an alternative to the regional structure of TRICARE.[1] The RAND Corporation was chosen by the USD(P&R) to study the feasibility of a Joint Medical Command (MEDCOM). The organizational structure gaining the most currency within DoD is the Joint MEDCOM. The goal of the Joint MEDCOM is to provide a single individual with the commensurate authority and responsibility to manage and integrate the entire MHS, make necessary program trade-offs, and consolidate and redirect resources. Table 2, drawn from a KPMG briefing to the DMOC, compares the organizational features of the current system with those of a nominal Joint MEDCOM. Because details concerning the military chain of command are still unsettled, Table 2 represents only one possible scenario.

Table 2. Features of Alternative Organizational Structures

Feature	Current Organization	Joint MEDCOM
Governance	Unchartered	Secretary of Defense/ CJCS
Policy	ASD(HA), TMA, SGs	ASD(HA)
Operational Control	TMA, SGs	CINC, Joint Medical Task Forces (JMTFs)
Management Structure	Ad hoc committees, Lead Agents, SGs, Military Treatment Facilities (MTFs)	JMTFs, market managers
MTF Command and Control	Military departments	Military departments
Appropriation	DHP	DHP
Carve-outs[a]	TMA	CINC staff

[a] IM/IT, enrollment, claims processing, pharmacy management, contract acquisition and management.

D. Assessment and issues

Under the Joint MEDCOM structure, the ASD(HA) retains corporate-level policy guidance and program oversight of all defense health programs and resources. The MEDCOM would be established as a joint command with responsibility for integrating the Services' peacetime benefit and readiness missions. The chain of command would run from the Secretary of Defense, to the Commander-in-Chief (CINC) MEDCOM. Responsibility for the MEDCOM budget would be assigned to the command. The Services would provide input during the formulation of the budget, with CINCMEDCOM exercising oversight to ensure the budget reflects command priorities. The SGs and their

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[1] The KPMG study strongly suggests that one entity must control, and be held accountable for, both the direct care and purchased care resources in a market area if they are to be managed effectively together. Although some consider this to be the major thrust of the KPMG study, most of the sources we interviewed considered integration of the MHS to be the major issue for the QDR.

staffs, together with the Service medical functions, personnel, facilities, and resources would be consolidated into the MEDCOM. In addition, the SGs would serve as component commanders and provide advice to the CINC on both doctrine and medical requirements.

IV. CANDIDATE QDR ISSUE

Although not taking an official position on the Joint MEDCOM or any other organizational concept, the TMA Executive Director has indicated that he does endorse organizational change that supports integration of the military health care system. The Joint MEDCOM concept is also seen as the least-objectionable alternative by the Services. With a military chain of command, they feel that readiness would be given the attention it deserves. With other organizational alternatives, such as a Defense Health Agency, still on the table, an issue for the QDR is to determine which organizational structure best addresses the need for an integrated health care system, consolidates and saves resources, provides beneficiaries with the best possible health care system, and preserves readiness.

VI. DEPARTMENT OF DEFENSE EDUCATION ACTIVITY

I. MISSION

A. Mission statement

There are two mission statements for the Department of Defense Education Activity (DoDEA); one exists in the DoD Directive that established DoDEA in 1992, a more succinct one is stated in the Community Strategic Plan (CSP), 2001-2006. In March 2000, a leadership team representing all stakeholder groups met at DoDEA to develop a CSP for the timeframe 2001–2006. The CSP has been approved and will soon be published. It also contains a new vision, eight guiding principles, four goals, and nine outcomes supporting the goals.[1] It updates the previous CSP, 1995-2000.

DoD Directive 1342.20, DoDEA, October 13, 1992. The mission of DoDEA is to:

> 1) Advise and act for the Assistant Secretary of Defense (Force Management and Personnel) (ASD(FM&P)) on all matters relative to the Department of Defense Dependents Schools (DoDDS), Section 6 Schools, and Continuing and Post-Secondary Education (CAPSE) programs. (Note: DoDEA is no longer responsible for CAPSE.)

> 2) Formulate and develop policies, guidelines, and standards for the management of defense education activities and programs. (Note: DoDEA only focuses on education for dependent children.)

> 3) Plan, coordinate and manage the education programs for eligible dependents of U.S. military personnel and civilian personnel of the Department of Defense stationed overseas.

> 4) Plan, direct, coordinate and manage the education programs for eligible dependents of U.S. military and civilian personnel stationed in areas prescribed in Public Law No. 81-874, Section 6.

> 5) Plan, direct, coordinate and oversee the programs and services for continuing adult and post-secondary education for U.S. military personnel. (Note: DoDEA is no longer responsible for CAPSE.)

Community Strategic Plan (CSP) 2001-2006. The mission statement is:

> The Department of Defense Education Activity provides, in military communities worldwide, exemplary educational programs that inspire and prepare all students for success in a global environment.

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[1] DoDEA Community Strategic Plan 2001-2006 (draft) at <www.odedodea.edu/csp/index.html>.

B. Origins and rationale - DoDEA history[2]

1. DDESS

In 1821, Congress first enacted a law that allowed the operation of schools on military posts. Schools were provided on some military posts before they appeared in many frontier communities. The status of schools for government dependents changed through the years in terms of legal status and financial support. In 1950, federal legislation consolidated the funding and operation of these installation-run schools under the authority of Section 6, Public Law No. 81-874. This legislation provided the criteria for operating and maintaining schools for children residing on federal property, and for the transfer of these schools to the Local Education Agency (LEA). In 1981, responsibility for the Section 6 schools was transferred from the Secretary of Education to the Secretary of Defense. In 1994, the school system was renamed the Department of Defense Domestic Dependent Elementary and Secondary Schools (DDESS). The Section 6/DDESS system has expanded and contracted over the years. At one point, there were about 100 installations with Section 6 schools, but by the early 1970s, most of these schools had been transferred to the LEA. The DDESS schools that remain tend to be in locations where a transfer is difficult to accomplish.

2. DoDDS

Prior to World War II, there was no precedent for establishing and operating dependents schools in foreign occupied countries. In 1946, dependents schools were established and operated by the Department of the Army. By 1949, almost 100 schools were being operated separately by the Army, Navy, and Air Force in countries around the world. In 1964, the Secretary of Defense combined the three separate school systems into the Department of Defense Overseas Dependents School System and divided it into three geographic areas. During the 1960s and 1970s, worldwide enrollment averaged 160,000, in grades K-12. There were more than 200 elementary and 100 junior/senior high schools in more than 30 foreign countries. In 1979, they became the Department of Defense Dependent Schools (DoDDS). Through several reconfigurations and school closings, DoDDS now comprises two geographic areas: Europe and the Pacific, plus one coterminous area/district in Cuba.

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[2] The DoDEA history was condensed and consolidated from "A Brief History of the Education of the U.S. Military Dependents: 1821 to 2000", by Dr. Thomas T. Drysdale; a chapter from *American Oversees Schools*, edited by Robert J. Simpson and Charles R. Duke, Appalachian State University, 2000; and DMDC Report No. 97-013, October 1997, A Study of Schools Serving Military Families in the U.S.

3. DoDEA

In 1992, the DoDDS headquarters in Arlington, VA, became the Department of Defense Education Activity (DoDEA). The Director, DoDEA assumed responsibility for organizing, managing, and directing the DoDEA headquarters, DoDDS, and Section 6 schools.

C. Functions, products, resources, and customers

DoDEA provides education to more than 100,000 eligible DoD military and civilian dependents from preschool through grade 12 in 227 schools located in the United States and overseas. It comprises an overseas school system, the Department of Defense Dependent Schools (DoDDS), and a stateside system, the DoD Domestic Dependent Elementary and Secondary Schools (DDESS). DoDDS is further subdivided into the Europe, Pacific, and American (Cuba) areas, with schools located in 14 countries. DDESS is located in seven states, Puerto Rico, and Guam.

The critical elements that drive resources are student enrollment and educational programs and policies. In FY1990, the DoDEA student enrollment was 195,449; as of 30 September 2000, the student enrollment was 112,145 students. During that same period the DoDDS enrollment declined from 155,496 to 76,366. This was a result of the drawdown of military forces, primarily in Europe, and the withdrawal of all military forces from Panama. Likewise, the DDESS enrollment declined from 39,953 to 35,418. This smaller decline was due primarily to troop strength changes at installations where DDESS schools are located. These enrollment figures also include 2,082 DoD students who attend non-DoD schools in approximately 100 countries where there are no DoDDS schools available, and 2,087 DoD students enrolled in public schools operated by Local Education Agencies in four states through special arrangements.

There is one business line in DoDEA—providing educational programs for authorized dependents from preschool through grade 12. Budget and manpower are broken down in terms of three activity areas—DoDEA wide, DoDDS, and DDESS. DoDDS and DDESS are differentiated due to different parts of the United States Code (U.S.C.) that govern them and their major difference in geographical locations, CONUS or overseas.

The DoDEA budget is supported by the Operations and Maintenance (O&M), Military Construction (MILCON), and Procurement appropriations. The DoDEA budget has increased from $1.07B in FY1990 to $1.50B in FY2001. The budget changes from year to year, based primarily on adjustment for inflation and any changes in educational programs and initiatives. The vast majority of the DoDEA funding comes from the O&M account, which has fluctuated through the years from 83 percent to 99 percent of the total funding. MILCON funding has ranged from $3.2M to $82.8M and in FY2001 it is

$35.9M. Procurement funding has ranged from no funds to $3.3M; in FY2001 it is $1.5M. Fixed costs comprise approximately 91 percent of the total O&M budget. Fixed costs include pay and benefits (69 percent), permanent change of station allocations, student commuting, textbooks, non-DoD schools tuition, instructional computers and local area networks, base support, maintenance contracts, rents, utilities, and communications. Discretionary costs comprise approximately nine percent, and include facility repair and maintenance, travel, miscellaneous services, supplies and equipment.

Manpower in DoDEA has decreased from 17,274 full-time equivalents (FTE) in FY1991 to 13,474 FTE in FY2001. Most of the decrease occurred during the drawdown in the early 1990s and has averaged 13,366 FTE over the past seven years. In FY2001, 90 percent of the FTE are school based positions; 10 percent are above school level positions. Above school level positions include the Director, DoDEA; Deputy Directors for Europe, the Pacific and DDESS, the district superintendents, and their respective staffs. The DoDEA Headquarters establishes educational policies, practices, and standards; establishes and implements accountability measures; identifies, secures and provides resources; and provides technical assistance. It also provides the normal headquarters functions related to personnel, procurement, fiscal, logistics, and information technology.

D. Interview results

The Services and unified commands believe that DoDEA provides an important service that is essential to the quality of life of military families. There was agreement that the consolidation of DoDDS and DDESS under DoDEA was appropriate. They support the operation of the schools by DoDEA rather than by the Services or the commands and agree that it should remain an OSD field activity. Some thought it might be possible to transfer the DDESS schools to the adjacent LEA; however, they stated this would probably lessen the quality of education and quality of life of those affected, and that it would be a very expensive and complex process.

E. Assessment and issues

The DoDEA mission in the DoD Directive specifies that DoDEA will plan, coordinate, and manage DoDDS and DDESS. Although not specified, it implies that DoDEA should consolidate operations, where appropriate, to improve efficiency and effectiveness of above-school-level operations and provide consistency of educational programs for eligible dependent children throughout the world. The DoDEA mission in the CSP was developed with input from, and is supported by, its customers.

Over the years, there have been studies related to the possible turnover of DDESS schools to the Local Education Agency (LEA). The most recent studies were done in

1986, 1988, 1991, and 1997. Generally, the findings and conclusions were that transfer of the schools would reduce the quality of the educational programs offered. Additionally, if it were feasible from a quality of education perspective, there is concern that financially the LEA could not afford to absorb the students without significant funding to support the initial transfer and without impact aid being funded at the maximum authorized levels. Impact aid has not been funded at the maximum authorized level since 1982[3]. The transfer of DDESS schools from the Department of Education to the Department of Defense in 1982 was seen as a logical move.

There have been no studies related to the turnover of DoDDS schools to another educational agency or organization. Customers are not inclined to support the idea of a transfer of DoDDS schools to the Department of Education because it would remove a degree of control further from the customers and it would only transfer the cost from one government department to another. There are 181 American-sponsored elementary and secondary schools overseas in 129 countries attended by most civilian agency dependents abroad. These schools are non-government, coeducational, independent schools of various kinds. Although these schools include those founded by U.S. companies, church organizations, and individual proprietors, the majority are nonprofit, nondenominational, independent schools established on a cooperative basis by American citizens residing in foreign communities[4]. The vast majority of the schools are not in the countries or locations near military installations currently serving DoDDS students or of the size that could provide and support educational services for all DoD dependent children overseas.

Efforts continue in terms of consolidating school districts, reducing above school level personnel, and insuring consistency in educational programs between DoDDS and DDESS and between large and small schools.

II. PERFORMANCE

DoDEA makes a concerted effort to be very open and to provide information to all of its stakeholders. Much of the information is available in paper format, but more importantly it is easily accessible to anyone via the Internet on the DoDEA website. Every year DoDEA produces school academic profiles that include information about school enrollment, teacher staffing and qualifications, special programs, school improvement implementation efforts, and results of tests and writing assessments. Survey results and detailed information about the Customer Satisfaction Survey; assessment of the CSP, 1995-2000; and development of the CSP, 2001-2006, are available. The Director, DoDEA provided an update to the ASD(FMP) about progress on seven major

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3   Defense Manpower Data Center, A Study of Schools Serving Military Families in the U.S., Report No. 97-013, October 1997.

4   U.S. State Department – American International Schools, <www.state.gov/www/about_state/schools/>

tasks, which is available on the DoDEA website. The DoDEA Comptroller developed a budget book for FY2000 and FY2001 that provides many details about the budget in a straightforward and useful format. The "Study of Schools Serving Military Families in the U.S." by DMDC is available on the website. DoDEA intends to post the IDA "Review of DoDEA Schools" on the website as soon as it is released by OSD. Applicable DoD directives and instructions as well as DoDEA regulations, manuals, and administrative instructions can be reviewed by anyone who is interested. All stakeholders can access the data and either get answers to most questions they might have about DoDEA or find out who to contact to get information.

A.   Status of metrics and benchmarks

Providing a quality education through the efficient and effective use of resources (funds, personnel, facilities, etc.) is the critical element in evaluating DoDEA performance from a business perspective.

Several alternatives for making comparisons have been used in various studies, research, and customer opinions surveys. There are many considerations, advantages and disadvantages relevant to these different alternatives. Many of these alternatives were used in the analytical evaluations of DoDEA performed in an recent study by the Institute for Defense Analyses (IDA. These include comparisons with the states, large school districts, districts adjacent to military bases or well known to military families, and national performance statistics.[5]

Other studies and reports that benchmark quality of education have focused primarily on customer surveys and are thus based more on perceptions and opinions. These include the "Customer Satisfaction Survey" conducted by DoDEA in all schools over a two year period from school-year 97–98 to 98-99, and the "Study of Schools Serving Military Families in the U.S." done by the Defense Manpower Data Center (DMDC) in 1997. DoDEA also conducted an assessment of how well they met the 10 goals and 40 benchmarks in the CSP, 1995-2000, the results of which were subsequently used to develop the CSP, 2001-2006. The 1999 Biennial Review of Defense Agencies and DoD Field Activities conducted by the Office of the Director of Administration and Management, Office of the Secretary of Defense, included DoDEA. It focused on customer satisfaction with DoDEA and its services, and responsiveness to and coordination with customers.

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[5]   Review of Department of Defense Education Activity (DoDEA) Schools, Institute for Defense Analyses, October 2000.

B. Metric and benchmark results

The assessment by IDA in its review of DoDEA schools was that the DoDEA school system provides students with an above average to excellent education. Military children attend many school systems during 12 years in elementary and secondary schools. Especially at the high school level, it is difficult to assess the impact of DoDEA because high-school students are a product of many school systems. DoDEA should get neither all the credit for great student achievement, nor all the blame for less-than-desired results.

The level of satisfaction naturally varied among schools, installations, and stakeholder groups, but interview comments and detailed analysis did not result in identification of any overall dissatisfaction or serious problems with the DoDEA school system. Analyses and comparisons at the national, state, and local levels indicate that DoDEA performs well and compares favorably in many areas. Because of cooperation and collaboration among stakeholder groups at all levels, there is a healthy, positive relationship that should result in increased student achievement.[6]

The FY2000 Performance Contract included benchmarks based on cost, quantity, and quality. Performance goals were based on national averages or on assessments of DoDEA and its schools. Of the 17 metrics in the contract, 13 were met and 4 were not. The metrics covered cost per pupil, pupil-teacher and pupil-staff ratios, achievement test scores, teacher certification, school accreditation, and technology in the school. Metrics were based on DoDEA-wide data, or DoDDS and DDESS separately, as appropriate to the metric.

The DoDEA "Customer Satisfaction Survey" provided information about the experience and satisfaction level of stakeholders in each of the DoDEA schools. Results were correlated to the goals and benchmarks from the CSP, 1995-2000. The results from the survey were positive and many strengths were identified. The results also identified areas for improvement. With aggregation of results at various levels—the DoDEA leadership from the school principal to the Director—DoDEA will be able to focus its efforts in areas that will further improve the quality of education.

The "Study of Schools Serving Military Families in the U.S." found that DDESS parents value both the quality of the educational programs and the additional benefits provided by the schools that impact on family quality of life. They also found that the DDESS schools were very responsive to the needs of military children. With respect to the issue of transferring the schools to the LEA, there were no strong proponents.

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[6] Ibid.

The 1999 Biennial Review of Defense Agencies and DoD Field Activities found an overall satisfaction score of 82 percent for DoDEA educational programs. These survey results reflect the assessments of commanders whose installations have DoDEA schools, and of the senior leadership within the Services and unified commands. Overall ratings in other areas included: responsiveness to customers, 82 percent; satisfaction with services, 83 percent; and coordination with customers, 82 percent. Customers (99 percent) thought that there was a continuing need for the educational services provided and that they were highly important. DoDEA has strong support (88 percent) as the preferred supplier of educational services.

The Government Accounting Office (GAO) conducted a study on quality of life and retention of Service members in critical specialties in 1999. Service members were asked to rank 44 quality of life factors. Officers were satisfied with 17 of the 44 factors and enlisted men and women were satisfied with 14 of the 44. DoDDS and DDESS were ranked 17th by the officers and 13th by the enlisted Service members.

C. Interview results

Those interviewed were very familiar with DoDEA and most were familiar with the many studies, reviews, and assessments conducted over the past several years. They all agreed that DoDEA provides an essential element related to the quality of life of Service members and their families. They were very satisfied with the quality of education provided.

III. MANAGEMENT

A. Agency management and governance structure

DoDEA is a field activity operating under the direction, authority, and control of the Deputy Assistant Secretary of Defense (Military Community and Family Policy) (DASD(MC&FP)). He reports to the ASD (Force Management Policy) (ASD(FMP)), who in turn reports to the Undersecretary of Defense (Personnel and Readiness) (USD(P&R)).

Within DoDEA, there are three Deputy Directors who have responsibility for DoDDS-Europe, DoDDS-Pacific, and DDESS. Subordinate to them are the District Superintendents who oversee the schools in their districts. At the DoDEA Headquarters there are Associate Directors for Education and Management; the Chief of Staff; Comptroller; Chief, Community Relations/Partnership; and Chief, Communications all of whom report directly to the Director, DoDEA.

B. Processes for supervision, guidance, customer feedback and performance assessment

Day-to-day operations of DoDEA are handled by the Director, DoDEA and his staff. The DASD(MC&FP) is involved in oversight of some day-to-day issues, primarily through the Quality of Life office. The ASD(FMP) and USD(P&R) get involved primarily in significant issues of concern to the unified commands and Services, as well as major budget issues. They are responsible for budget oversight and major decisions impacting on DoDEA.

Additional organizations provide assistance to DoDEA. Federal law and a DoD Directive establish the requirement for an Advisory Council on Dependent Education (ACDE) for DoDDS[7]. Federal law and a DoD Instruction provide objectives, policies, responsibilities, and procedures regarding School Advisory Committees (SACs), Installation Advisory Committees (IACs), Component Command Advisory Councils (CCACs), Theater Education Councils (TECs), and the Dependents Education Council (DEC) for the overseas school system operated by DoDDS[8]. The DDESS School Boards are established by law and implemented through a DoD Instruction[9]. They are located at each installation where DDESS schools are established. Each of these organizations makes recommendations and provides advice to DoDEA leaders at various levels, from the Director, DoDEA down to the school principals. An installation commander is required to appoint a staff member to serve as the installation's Schools Officer (SO), who serves as a liaison between the school principals and the installation commander.[10] There is also a full-time SO or staff member with similar duties at each of the theater and component commands.

The DEC was established to provide consultation between the ASD(FMP), the DoDEA Director, the CINCs, and the chiefs of the Military Services. They consider questions of educational policy and matters related to facilities, logistics, and administrative support provided to DoDDS by the military. The ACDE was established to advise the ASD(FMP) and the Director, DoDEA on improvements to achieve and maintain a high-quality public educational program.

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[7]   Title 20 U.S.C., Section 929 and DoD Directive 1342.6, Department of Defense Dependent Schools, October 13, 1992.

[8]   Title 20, Section 928 and DoD Instruction 1342.15, Educational Advisory Committees and Councils, March 27, 1987.

[9]   Title 10 U.S.C., Section 216 and DoD Instruction 1342.25, School Boards for Department of Defense Dependent Elementary and Secondary Schools (DDESS), October 30 1996.

[10] DoD Directive 1342.6-M, Administrative and Logistic Responsibilities for DoD Dependent Schools, dated August 11, 1995.

Two primary segments of the United States Code (U.S.C.) govern the operation of DoDEA schools: 1) U.S.C., Title 10 (Armed Forces), Chapter 108 (DoD Schools), Section 2164 – DoD Domestic Dependent Elementary and Secondary Schools; and 2) U.S.C., Title 20 (Education), Chapter 25A-Overseas Defense Dependent's Education. The code is amended as a result of changes in public law. There are other parts of the Code and Public Laws that impact specific areas of DoDEA, such as the Individuals with Disabilities Education Act (IDEA).

The Department of Defense has published 14 DoD directives and instructions that specifically address DoDEA, DoDDS, or DDESS/Section 6 Schools, and provide guidance based on public law. DoDEA has published more than 150 regulations, manuals, and administrative instructions based on public law and DoD guidance for internal operations and management. The documents were published between 1985 and 1997; most between 1987 and 1992. Most address DoDDS; very few address DDESS.[11] Since 1992, when the Director, DoDEA assumed responsibility for organizing, managing, and directing the DoDEA, DoDDS, and Section 6 Schools (now DDESS), there has not been much updating of the documents that guide the organization.

C. Pricing practices and initiatives

One measure of how education funds are expended is to compare per pupil expenditures. A review of the per pupil expenditures for each of the 50 states, the District of Columbia, DoDDS, and DDESS indicates that DoDEA expenditures are about the same as those states with the highest per pupil expenditures. For SY 98-99, DoDDS and DDESS ranked 4th and 6th, respectively. Their expenditures are more than twice as large as those states with the lowest per pupil expenditures. There is no adjustment for regional cost differences in the data. Also, the aggregation of school districts into statewide averages may not reflect possible wide variances among school districts within a state. A review of the per pupil expenditures for the 100 largest school districts in the United States for SY 95-96 found that DoDDS and DDESS ranked 4th and 13th, respectively.[12]

Because of changes in educational programs, initiatives, and organizational structure, neither the DoDEA budget nor the number of full-time equivalents (FTE) bears a direct relationship to student enrollment. For example, the implementation of full-day kindergarten in DoDDS (it already existed in DDESS) and the reduction of the pupil-teacher ratio to 18:1 in grades 1-3 increased the requirements primarily for funding to pay additional teachers and military construction. The MILCON program totals $270M and

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[11] DoDEA 1000.1-1, Department of Defense Dependents Schools (DoDDS) Index of Issuances, August 1997.

[12] Review of Department of Defense Education Activity (DoDEA) Schools, Institute for Defense Analyses, October 2000.

teachers increase 649 FTE between FY2000 and FY2007. DoDEA has also increased the number of guidance counselors and school psychologists, which will cost a total of $80M between FY2001 and FY2006. Increased funding for this initiative was not approved, so funding will come from a realignment from internal DoDEA resources. These initiatives were requested and supported by the unified and component commands.

There is a DoDEA Program Budget Advisory Council (PBAC) that consists of the Director, DoDEA, the three Deputy Directors, and the two Associate Directors. The DoDEA Comptroller participates as a non-voting member. In the past, budget formulation and decision making were done at DoDEA headquarters with little input from DoDDS or DDESS. There is now more effort to involve the subordinate leaders of DoDEA as well as the advisory councils, committees and school boards in the process, rather than just providing them the budget after it is already submitted. DoDEA is also working to insure that budget development and justification are based on DoDEA goals and the DoDEA Community Strategic Plan.

DoDDS and DDESS maintain different accounting systems since they came under DoDEA. The budget procedures are also complicated because of interaction between DoDEA and the Defense Finance and Accounting System (DFAS). DoDEA does not have its own accounting system and is dependent on DFAS to handle all disbursements. In FY2000, DoDEA paid DFAS $4M for support.[13] DoDEA uses several different DFAS centers, operated by different Services with different accounting procedures and classification codes. For example, DDESS personnel are paid from the DFAS Center in Pensacola, FL (Navy), and DoDDS personnel are paid from the DFAS Center in Charleston, SC (Army), with each center having separate procedures.

D. DRI and related business practice initiatives

Limited data are available to determine the extent of any specific savings as a result of establishing DoDEA. There was an initial net reduction of 108 FTE above school level. DoDEA has estimated that it saved $10.6M by standardizing curriculum materials and consolidating textbook and material purchases. Direct negotiation and administration of DDESS operating contracts has saved $2.7M. DoDEA is considering a change in the operation of and a reduction of personnel in its procurement office after a recent DoDEA study showed that 98 percent of the transactions it accomplished for DoDEA headquarters, DoDDS, and DDESS were under $2,500, which is the threshold for the IMPAC cards.

DoDEA has developed a strategic sourcing plan that will help achieve a more efficient and cost effective organization, while still providing quality education. In

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[13] DoDEA FY2000 Budget Book, June 2000.

addition to complying with the A-76 process, they are exploring other options to include consolidation of functions, reengineering and restructuring, improving business practices, and maximizing the use of technology. A DoDEA inventory of positions in February 2000 identified 3,624 positions (27 percent of the total) as commercial in nature. Those will be studied for possible competitive sourcing. They include the following organizations/functions: Transportation Activity, Antilles Consolidated School System; information technology, fiscal, logistical support, procurement and personnel. Studies of the transportation activity and information technology function are ongoing. Studies of the other functions are to be phased and conducted over the next several years.

The DoDEA Technology Plan provides technology goals, describes technology requirements, evaluates the current status, and provides funding priorities and estimates. In May 2000, the 4.3:1 ratio of students per instructional multimedia computer in DoDEA was less than half the national average for all states in 1999. All DoDEA schools have access to the Internet and 58 percent have a complete local area network (LAN). DoDEA estimates that to provide adequate bandwidth for future requirements for all schools would cost $66M. Funds were requested by DoDEA but not supported in a recent budget submission.

Providing technology to support student learning and facilitate school operations has been a high priority in DoDEA. There are plans to continue teacher training, to increase the number of cross-level Pentium computers in all schools, and to complete installation of LANs. Technology has enabled courses to be offered to students who otherwise might not have been able to take them, through distance learning. School Web sites and email between parents and teachers are improving communications and the dissemination of information. All schools are converting over to one standardized information management system.

Many new initiatives recommended for implementation are being studied by DoDEA task forces. They are making a concerted effort to ensure that these task forces include representatives of all appropriate stakeholder groups and that all issues are thoroughly discussed and analyzed before making final recommendations and decisions.

E. Personnel and facilities management initiatives

1. Personnel management

The DoDEA Personnel Office has developed some innovative programs that are saving and will save money and improve efficiency in processing personnel actions submitted by educators in the field. A web-enabled DoDEA Travel Orders Processing System (TOPS) provides an automated, paperless processing system of non-TDY travel orders. A web-enabled DoDEA Allowance Processing System (DAPS) will automate the processing and approval of overseas allowances. They are also initiating an electronic

Official Personnel File (OPF), an imaging system that will provide both scanned images and digital data of all OPF documents. When all three programs are operational, a total annual savings of $670K/year is estimated. These and similar efforts are important because of the extreme distances between most personnel overseas and the DoDEA Personnel Office. The Personnel Office staffing ratio is currently 85:1, the second best in DoD. The goal for all DoD personnel offices is 100:1.

A comprehensive professional development (PD) program is an essential element in providing a quality education. DoDEA provides extensive training throughout the year at locations around the world. The use of distance learning to provide professional development opportunities would reduce travel time and costs, broaden the audience, and ensure consistency of presentations.

2. Facilities management

Many schools are in old buildings in need of major renovations or replacement. The average age of DoDEA schools is lower, however, than the average age of schools nationally. DoDEA has developed an integrated construction priority list for all projects in DoDDS and DDESS. The current list includes 50 projects ranging in cost from $800K to $50M, and averaging $9.3M. DoDEA has also developed a five-year plan for identifying repair and maintenance requirements, prioritizing them and separating projects by fiscal year based on the availability of funds, and coordinating the plans at all levels. Repair and maintenance is funded below the 2.5 percent DoD Plant Replacement Value (PRV) standard for DoD facilities.

Funds allocated for construction have varied significantly over the years. In 1985, DoDEA received $156M; in 1998, it received no funds. DoDEA spends between approximately 9 and 10 percent of its budget for construction and the repair and maintenance of facilities. Repair and maintenance funds are sometimes used to pay for other expenses that may have been unforeseen. For example, $6.3M of FY2000 repairs and maintenance funds were used to fund some of the costs associated with an accelerated implementation of full-day kindergarten and reduced PTR, hiring additional guidance counselors and psychologists, and the implementation of the DDESS Master Labor Agreement.

F. Interview results

Most of those interviewed stated that the USD(P&R), ASD(FMP), and the DASD (MC&FP) provided both an oversight and advocacy role with respect to DoDEA and that both roles seem to be appropriate. The DEC, ACDE, and other councils, committees, and school boards perform functions similar to a board of directors, although without any decision-making authority. Quality of education is tied to quality of life, readiness, and

retention. Most of the recommendations of the Services or CINCs impact directly on the DoDEA O&M and MILCON budget and civilian personnel strength.

The primary concern expressed by the Services was that they were required to provide the funds for new DoDEA educational programs in a process that they thought did not allow them adequate opportunity to assess and comment on the impact to their budget. They support providing a quality education to eligible dependent children, but they stated they did not have much if any input in the final decisions about funding. Although the Services are represented at the DEC where these new programs are discussed, they thought there should be more communication between DoDEA and the Services prior to the DEC meeting so they could gather information and be active participants in the discussions.

The customers stated that DoDEA should develop a more disciplined system to study and decide on actions to take on issues. They think DoDEA takes too long to bring issues to closure. They understand the complexity of trying to assess something that impacts a world-wide education system, but think DoDEA could be more responsive.

G. Assessment and issues

Any new educational program is evaluated to see if it has merit, and if so, if there are funds in the DoDEA budget to support it. DoDEA considers input from the DEC, which has representatives from the unified commands, the Services, and the ACDE. When there is a proposed increase in the budget due to a new program, it is briefed by DoDEA to the OSD chain of command; the OSD chain must support the initiative or it will not go forward.

Not all initiatives are supported, for various reasons. For those programs that are supported, the review process continues when the programs are forwarded to the Comptroller or to PA&E. A determination is made about the funds, FTE, and MILCON that will be required. If funds are available within DoDEA, reprogramming is recommended. PA&E writes the PDM or the Comptroller writes the PBD, depending on where the program is in the review process. Any plus-up comes in offsets from somewhere else. In the POM, it comes from within the total budget, and within the budget review it usually comes from the Services. The PBD or PDM goes to the Joint Staff and Services for concurrence or non-concurrence. The comments are summarized and sent to the Deputy Secretary of Defense. A better understanding by the Services of the entire budget process for the agencies/activities would be beneficial.

The purpose of the councils, committees, school boards, and schools officers is to promote communications and problem solving among school administrators, military leaders, and local advisory committees. The current DoDDS system is cumbersome and

complex, but it is functioning. The system could be simplified and still retain the intent of the laws and DoD guidance.

DDESS does not get any consideration of its issues before the DEC, nor is it included in any visits by the ACDE. DDESS represents 31 percent of the student enrollment and 31 percent of the schools in DoDEA. That is too significant to exclude. The DEC should address issues from DDESS just as it addresses those from DoDDS. Issues related to the budget, curriculum, facilities construction, maintenance and repair, and many DoDEA policies are applicable, or should be applicable, to DDESS. If the functions performed by the ACDE are beneficial for DoDDS, they should be just as beneficial for DDESS.

The inability of councils, committees, and school boards to make decisions, as opposed to providing advice and recommendations, does not appear to be a significant problem. Interaction and openness among principals, superintendents, and installation commanders are critical to the success of a SAC, IAC, or School Board. They can be a powerful force in enhancing high quality education in the DoDEA school system.

Laws, legislation, and implementing guidance published by DoD and DoDEA do not appear to hinder DoDEA. However, the layering of policies and procedures within DoDDS and DDESS and the absence of guidance for DDESS but detailed guidance for DoDDS hinders understanding and the creation of a more efficient DoDEA. Consolidated documents would provide guidance and a clear understanding of when DoDDS and DDESS should operate the same, and when they should operate differently.

Consolidation of DoDEA financial transactions under a single DFAS center would improve efficiency. Eliminating different accounting systems would permit better queries and budget analysis, simplify procedures, and save funds.

IV. CANDIDATE QDR ISSUES

- Consolidation of DFAS accounting systems
- Review of the DoDEA performance contract process
- Use of the DoDEA board of directors as a model for other Defense Agencies
- Development of a DoDEA budget process that is better understood and supported by the Services and unified commands.

VII. DEFENSE COMMISSARY AGENCY

I. MISSION

A. Mission statement

The mission of the Defense Commissary Agency (DeCA) is: (1) to provide an efficient and effective worldwide system of commissaries for the resale of groceries and household supplies at the lowest practical price (consistent with quality) to members of the Military Services, their families, and other authorized patrons, while maintaining high standards for quality, facilities, products and service; and (2) to provide a peacetime training environment for food supply logisticians needed in wartime and, as circumstances dictate, troop issue subsistence support to military dining facilities consistent with Service needs.

B. Origins and rationale

Commissaries have been part of the total compensation package for the armed forces for over a century. They began their evolution in 1825, when Army officers were permitted to purchase goods for their personal use from Subsistence Department warehouses, at cost. In 1866-67, enlisted men were allowed the same privilege.

Originally known as "Sales Commissaries" to distinguish them from Troop Issue facilities, these sales stores have operated at "all posts necessary" since 1867 (Army), 1910 (Navy, USMC), and 1948 (Air Force). Contrary to an erroneous stereotype, commissaries were not established for remote posts; in fact, remote, frontier posts were actually the last places to get well-stocked commissaries. The first stores were actually back east: the Army's first store was at Fort Delaware (Del); the Navy's was in the Washington (D.C.) Navy Yard.

Military retirees first became eligible to shop at the stores in 1879, making the commissaries an inducement to reenlistment.

Overseas stores were established in 1899 in the Philippines, and in Peking following the Boxer Rebellion (1900). During the next decade, they were established in Panama and the Caribbean. They were present in Belgium and France during World War I, and were located throughout the United States and its possessions between 1920-1941.

In all of these cases, the commissaries were run by the local post or base, with only marginal guidance from higher headquarters. This began to change in 1949 with the adoption of the Armed Services Commissary Regulation, which established some

common standards and practices at commissaries run by each of the services. However, each base still retained control over its local facilities, and each service still gave varying attention to its stores.

Different commissions since the 1950s reviewed issues such as competition, privatization, and the true costs of commissaries, but the Service commissaries operated without major changes until DeCA was established in 1990. A 1980 General Accounting Office report recommended consolidating the four separate commissary systems into a single system, but until a report issued by the Jones Commission in 1989, the recommendations were not implemented.

On May 15, 1990, DoD announced that the Defense Commissary Agency would be formed to consolidate the Services' commissary systems. A DeCA transition team was formed and began meeting in July 1990. One of its first actions was to select Fort Lee, Virginia as the site for the new headquarters. On November 9, 1990 DeCA was established by DoD Directive 5105.55. On October 1, 1991 DeCA was officially activated.

C. Functions, products, resources, and customers

DeCA's primary function is to sell groceries and household supplies to military personnel, retirees, reserve component personnel on full-time status, and their families. It operates 287 stores in 14 countries and serves nearly 12 million customers. DeCA has the secondary function of providing peacetime training to food logisticians and providing troop subsistence support as needed.

Department of Defense Reform Initiative Directive (DRID) #23, dated January 26, 1998, requires the Directors of designated Defense Agencies to submit an annual performance contract to the Defense Management Council for review and subsequent approval by the Deputy Secretary of Defense. DeCA's performance contract defines the business activities of DeCA as follows: Operations, Product Support, Resource Management and Capital Investment.

According to DeCA's Commissary Customer Service Survey in 2000, 48% of the shoppers were active duty personnel, 44% were retirees, 3% were reserve and 5% were other DoD authorized patrons. In terms of sales, a 1997 Congressional Budget Office reports that 54 percent were to retirees, 39 percent to active-duty personnel, and seven percent to reserve personnel in 1993. Sales are approximately $5B per year.

D.   Interview results: schools of thought on Agency mission and functions

There is general agreement that the Agency provides a significant quality of life benefit to military members and retirees. There is some disagreement about the most cost-effective way to provide this recruiting and retention benefit.

The Congressional Budget Office has analyzed many alternatives. Some involve merging DeCA with the base exchanges; some significantly reduce the operating costs of DeCA, which involve about $1B of appropriated funds. Merger with the exchanges might well require consolidation of today's three exchange systems. Although the costs to Service members would increase, direct subsidies such as a grocery allowance could confer the same benefit on the active duty Service member at a much lower cost. Retirees would lose some of their benefit, though prices at the exchanges would still be lower than at commercial markets.

DeCA has achieved savings by contracting out a substantial part of its activities. Significantly reducing the number of civil service employees in DeCA and replacing them with lower-cost direct hires or contractor personnel, without changing the nature of management, might yield additional major savings in the operating cost of DeCA.

DeCA now offers only brand name goods. There has been some question as to whether greater savings to customers could be achieved by making non-brand goods available. A recent initiative to introduce lower-cost brands has made this less of an issue.

E.   Assessment and issues: why a consolidated, governmental, sole-source supplier?

The first rationale for DeCA is that one agency is better and more efficient than four agencies.

The second is in terms of the benefit. DeCA delivers about $5B per year worth of products to consumers, marked up by five percent over cost. Operating cost of approximately $1B to accomplish this is provided by appropriated funds. The savings to the customers are estimated to be as much as 30 percent on a comparative market basket basis, which is $1.5B. The $1B appropriation provides this benefit. Stated another way, it is estimated that the average active duty military family of four saves approximately $2300 per year shopping at the commissary.

Running a chain of grocery stores is obviously not an inherently governmental function. The government chooses to provide the commissary benefit, delivered by government people, on post, all over the world. As mentioned above, the CBO estimates that there may be better ways to provide this benefit and that there are societal costs, not borne by the Department of Defense. There are three major alternatives, as follows:

    a.   Have a commercial grocery chain operate the stores, either worldwide or only in CONUS (which accounts for the vast majority of the business). It appears that one reason for not doing this is that state and local sales taxes would have

to be paid in CONUS. The fact that taxpayers have to make up the loss of state and local revenues avoided by the commissaries is a societal cost that permits DeCA to provide greater savings to its customers than would otherwise be possible.

It is sometimes argued that it would be next to impossible to get a commercial firm to come in and run a store at a location like Kunsan, Korea. There are certainly conditions under which a large grocery chain would be willing to take over all of DeCA's stores. The potential cost savings are unknown, however.

b. Continue to have DeCA managed by government employees, but stop using civil service cashiers, who are the vast bulk of DeCA employees. Either gaining authority to hire outside civil service regulations (as the Exchanges do) or contracting out the provision of cashiers by expanding DeCA's existing A-76 commercial activity program could accomplish this.

c. Merge DeCA and the exchanges into a single entity, as explored by the CBO analyses.

II. PERFORMANCE

A. Status of metrics and benchmarks for the Agency

The performance metrics from the FY 2001 DeCA performance contract are as follows :

	2000	2001	2002	2003	2004	2005
Total Cost	1097	1105	1142	1174	1128	1158
Sales	5000	5080	5200	5400	5500	5500
Cost/Sales	.2193	.2174	.2196	.2172	.2051	.2105

From the 1999 Biennial Review of Defense Agencies and DoD Field Activities published May 2000, the ratings of DeCA were as follows:

Overall Satisfaction Score -- 91%
Satisfaction with Business Line -- 100%
Responsiveness to Customers -- 100%
Satisfaction with Specific Products and Services -- 82%
Coordination with Customers -- 82%

In terms of overall satisfaction score, DeCA ranked 7th of 53 business lines surveyed.

B. What the metrics and benchmarks show

The performance of DeCA is very well captured by the combination of metrics in the performance contract. Increasing sales by 10 percent over five years delivers 10 percent more benefit to customers, everything else being equal. Although not shown by the above numbers, DeCA seeks to reduce operating cost per unit delivered by 10

percent. This would allow it to deliver the $5.5B in sales for the same appropriated operating cost that it previously needed to deliver $5B in sales. In addition, DeCA seeks to increase the utility of the relative savings of the market basket from 29 percent to 32 percent. Overall, savings would rise from around $1.45B (29 percent of $5B) to $1.76B (32 percent of $5.5B) by 2007. This is a very ambitious goal.

While the methodology of the biennial review is mostly subjective, DeCA does rank very high among Defense Agencies and is thus relatively quite successful overall.

C. Interview results: schools of thought on Agency performance

Everyone interviewed feels that the Agency delivers a good product, at a low cost to consumers, and that it is trying to be efficient and make progress. It is generally understood that DeCA is more efficient than the four separate Service commissary systems were.

Relaxation of constraints on product offerings might allow more benefits. In particular, DeCA cannot now offer private label items. However, the Agency credibly contends that its Best Value Item program delivers savings comparable to non-brand items.

Major organizational changes, such as the combining of commissaries and exchanges as analyzed by the CBO, might offer comparable benefits at lower costs.

Some observers believe that the Agency has been slow to implement Information Technology. Commercial-Off-The-Shelf (COTS) products for the grocery business are said not to be immediately applicable to DeCA because of its unique systems. DeCA notes that as part of the government and the Department of Defense, it must accommodate the unique government business practices over which it has no control. DeCA has been slow to implement commercial-off-the-shelf products because they require modifications to work in the government environment that include unique payroll, personnel, financial accounting, and contracting processes.

D. Assessment and issues

Within governmental and legislative constraints, DeCA's performance is good and improving. Metrics are sufficient, although a clearer focus in the performance contract on how the net benefits provided to customers are estimated would be useful.

Legislative changes to allow DeCA more flexibility in the way it conducts its business might yield additional savings to customers, but these are not within DeCA's authority.

III. MANAGEMENT

A. Description of Agency top management and Principal Staff Assistant (PSA) governance structure

The commander of DeCA is a two-star billet, currently an Air Force major general. A civilian Chief Executive Officer (CEO), at the SES level, reports to him.

The Department of Defense Reform Initiative Directive # 37, Revised Oversight of the Defense Commissary Agency, states the following:

> The day-to-day management of the Defense Commissary Agency will be devolved to the Commissary Operating Board (COB), composed of representatives of the Secretaries of the Military Departments. The Under Secretary of Defense for Personnel and Readiness will continue to exercise overall supervision in accordance with Title 10 U.S.C. 192. The Director, DeCA will report to the Chairman of the COB.

The Board has been a useful source of customer feedback for DeCA. Some observers believe that it does not have the involvement or resources to provide day-to-day management oversight. In addition, OSD/PA&E supervises the performance contract process for DoD.

B. Status of processes for PSA supervision, guidance, customer feedback and performance assessment, planning, programming, and budgeting

The PSA appears to be very active in interacting with the COB and in working with the performance contracting process. The PSA also appears to be informed in detail about the major issues confronting DeCA. There is general agreement that the DeCA subsidy will remain around the level of $1B in constant dollars.

C. Pricing practices and initiatives

DeCA prices are constrained to be five percent above the cost of the items. Cost includes delivery and stocking, since vendors do that job. The Best Value Item program identifies products for the customers for which low prices have been negotiated with the suppliers. DeCA pays TRANSCOM for shipping goods overseas. By law, the price cannot be more than that of commercial transportation. DeCA has DLA procure its produce. DeCA and Defense Supply Center Philadelphia (DSCP) work very closely to ensure quality produce is obtained at a favorable price for DeCA's customers.

DeCA uses the General Services Agency (GSA) and Defense Information Systems Agency (DISA) communications agreements. It also uses Defense Finance and Accounting Service (DFAS) for finance and accounting functions. All are reimbursed for their costs under the DoD Working Capital Fund concept.

D. Defense Reform Initiative and related business practice initiatives

DeCA was a finalist in the Presidential Quality Award process and has received many awards. The Agency has participated in the Performance-Based Organization program. Its attempts to use this program to reduce its reliance on civil service labor were thwarted.

The implementation of Information Technology has been slower than in the overall grocery industry. In part this was because of the overhead associated with government procurement of IT. Since repeal of the Brooks Act in 1996, DeCA has surveyed the IT marketplace; reviewed initiatives used by commercial retail counterparts, and begun to automate key functional requirements. DeCA expects its plan to allow it to achieve parity with its commercial counterparts by 2004.

E. Personnel and facilities management plans or initiatives

There is a facilities management plan, and a recent budgetary initiative will pay for facility upgrades out of the five percent surcharge. Facilities upgrades are a major area of concentration of the Agency. DeCA plans to eliminate its repair backlog by FY09. Experience has shown that whenever new modernized stores are opened that more beneficiaries are attracted.

Personnel management and leadership are also a major focus. Negotiations with unions take place periodically.

In contrast to commercial grocery chains, many activities (such as delicatessen and bakery) are contracted out. Much of the shelf stocking is either accomplished by vendors or through a DeCA contract so there are fewer store worker personnel than in commercial grocery chains. Currently DeCA has contracted out approximately 4,800 FTEs (approximately 23% of its total store level work force) to reduce its reliance on civil service labor and has identified some 7,100 more FTEs that are subject to review under the competitive sourcing program.

F. Interview results: schools of thought on Agency management

The Commissary Operating Board is unique. It provides customer participation and feedback; it confers a sense of ownership of DeCA by the Services. It generally has not provided independent analysis and cost-effectiveness scrubbing of DeCA.

The PSA provides independent assessment and policy oversight, but it is not clear how much management.

DeCA does have a strategic plan that is closely related to the performance goals and is used to focus DeCA's entire operation. This appears to be a positive thrust.

DeCA

An Annual Report has not been issued even though DRID #37 Revised, signed in 1998, mandated that the COB provide an Annual Report. However, DeCA will, at the direction of the COB Chairman, be preparing an annual report covering FY 2001, much like a commercial firm would issue to its stockholders.

A business-like approach would be for DeCA to prepare an audited report with ten years of historical data and five years of projected data, modeled after the 10-K report of public corporations mandated by the Securities and Exchange Commission. DeCA is now operating under a USD mandate to work with a civilian audit firm to give Chief Financial Officer Act compliant accounting reports..

G. Assessment and issues

There appears to be little outside supervision of the Agency, though the COB provides input not available to other Defense Agencies.

Given the structure of DeCA incentives, the Agency deals well with vendors to get low prices. It actively strives to minimize operating costs, keeping the appropriation from rising much above $1B.

DeCA wants to improve business practices, and the availability of improved data has allowed the Agency to benchmark its costs better. DeCA appears to be behind industry in the application of Information Technology. It has made catching up a strategic objective. Progress in this area needs to be monitored.

Substantial savings would be achieved if DeCA were able to reduce its employment of civil servants by contracting out the bulk of their functions while retaining a core of government employees for supervision and management.

IV. CANDIDATE QDR ISSUES

- Should management of DeCA be retained and almost all of the functions of personnel (such as cashiers) be contracted out, perhaps to a single company? (It is assumed that DoD wants to retain a commissary benefit.) Alternatively, should civil service requirements be relaxed to permit the use of lower-cost staff?
- Should DeCA and the exchanges be merged into a single entity? The CBO analysis concludes that this would save DoD, and the public, money, and that active duty personnel could be compensated by grocery allowances at a relatively modest cost. The value of the benefit to retirees would be reduced under this plan.

VIII. BALLISTIC MISSILE DEFENSE ORGANIZATION

I. MISSION

A. Mission and primary lines of business[1]

The mission and primary line of business for the Ballistic Missile Defense Organization can be stated as:

- **TMD/TAMD:**[2] To develop, produce, and deploy rapidly relocatable, advanced theater missile defenses to protect forward-deployed and expeditionary elements of the U.S. armed forces as well as U.S. friends and allies. Concurrently, to produce the acquisition portion of the Theater Air and Missile Defense Master Plan and to serve as Integration System Architect for theater air and missile defenses.[3]

- **NMD:**[4] To develop options for, and deploy when directed, an antiballistic missile system that protects the U.S. homeland from limited attacks of ballistic missiles, including accidental and unauthorized launches or deliberate attacks.

- **Technology Development for Defenses:** To pursue advanced technologies and basic and applied research to reduce the cost and improve the performance of deployed systems, and to pace the threat.

Since the late 1950s, there has been considerable evolution in missile defense programs as a result of:

- Changes in threats (and in appreciation of threats).

- Technological capabilities.

- Strategic priorities, e.g., the relative emphasis given to protection of urban areas vs. missile silos vs. the entire U.S. homeland, all of which have been, at different points in time, the primary emphasis in public statements concerning strategic defense programs.

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[1] Mission statement based on DoDD 5134.9, *Ballistic Missile Defense Organization*, June 14, 1994. The 1999 Biennial Review of Defense Agencies and DoD Field Activities defined three lines of business: 1) ballistic missile defense system program management oversight; 2) missile defense system acquisition and implementation, 3) technology, research, development, test and evaluation, and architecture/engineering.

[2] TMD: Theater Missile Defense; TAMD: Theater Air and Missile Defense.

[3] BMDO Theater Air and Missile Defense (TAMD) responsibilities were determined in a November 14, 1996 memorandum signed by the Under Secretary of Defense (Acquisition & Technology) and the Vice Chairman, Joint Chiefs of Staff.

[4] NMD: National Missile Defense.

- Policy considerations, notably, interpretations of the activities that are consistent with the ABM treaty and, more recently, differing views concerning the legal status of this treaty, given the demise of the Soviet Union.

The President's FY2001 budget submitted by the previous administration (Table 1) proposed to focus most BMDO investments on demonstration/validation and engineering and manufacturing development for major defense acquisition programs (MDAPs) accomplished using standard DoD procedures.[5]

Table 1. Proposed BMDO FY 01 Program, PB 01 Submission

Program	Funding
Procurement	443.962
Applied Research, RDT&E Budget Activity	37.747
Advanced Technology Development, RDT&E Budget Activity	167.786
Demonstration and Validation, RDT&E Budget Activity	2,832.435
Engineering and Manufacturing Development, RDT&E Budget Activity	905,195
MILCON	103.518
Total BMDO Program, PB 01 submission	*4,490.643*

Source: Ballistic Missile Defense Organization. Press Release. FY 01 President's Budget. 4 Feb 00.

B. Origins and rationale

Development of improved defenses against ballistic missile threats has been a focus in DoD RDT&E and acquisition programs since the 1950s. Table 2 presents selected milestones in strategic and theater defense programs.

The Strategic Defense Initiative Organization, established in 1984, was the first defense agency instituted to develop improved defenses. Its program focused on development of advanced defenses directed at the formidable threat posed by the large number of Soviet long-range ballistic missiles. In the early 1990s, coincident with the end of the cold war and the dissolution of the Soviet Union, defensive programs were redirected to develop capabilities to counter the threats that had resulted from the proliferation of long-range ballistic missiles carrying nuclear, biological, or chemical warheads.

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[5] As noted in Appendix B within the FY 2001 edition of the Secretary of Defense's Annual Report, some changes may be made to FY 01 budgets.

Table 2. Selected Strategic and Theater Defense Milestones.

Dates	Events
1957-1967	Research , development, and deployment of Nike systems, some of which had anti-missile capabilities.
September 1967	President Johnson announced the Sentinel ABM system. Public statements emphasized use to protect urban areas against a limited missile attack, as might be posed by China.
March 1969	President Nixon redirected the national ABM program. Public statements emphasized deployment of Safeguard program interceptors to defend missile silos.
May 1972	ABM Treaty signed by U.S. and Soviet leaders.
October 1975 – January 1976	Period of operation for the Safeguard system.
March 1983	President Reagan speech announcing Strategic Defense Initiative.
April 1984	Strategic Defense Initiative Organization established.
January 1991	In the aftermath of cold war, SDIO program redirected from threats posed by numerous Soviet ballistic missiles to GPALS – Global Protection Against Limited Strikes.
May 1993	Ballistic Missile Defense Organization (BMDO) established; new priority given to theater missile defenses.
July 1999	National Missile Defense Act of 1999 becomes law, making it U.S. policy to deploy NMD as soon as technologically possible.

Sources: Dr. Donald H. Baucom, *Ballistic Missile Defense: A Brief History*, Ballistic Missile Defense Organization; Joseph Cirincione, *A Brief History of Ballistic Missile Defense*, Carnegie Endowment for International Peace; Federation of American Scientists, *Missile Defense Milestones, 1944-2000*.

Coincidentally, during the 1990 Gulf War limitations in theater missile defense capabilities were demonstrated; the Patriot theater missile and air defense system had questionable effectiveness against Iraqi Scud-class missiles.

BMDO was established in 1993. There was a change in emphasis from using space-based systems to the use of ground-based systems to defeat both short- and longer-range threats. Notably, the new mission was to deploy improved defenses against theater missiles but only to be prepared to deploy more effective national missile defenses. Also notable was a shift in program priorities. Prior to establishment of BMDO, much of the program involved technology development. Since the early 1990s, emphasis has been given to weapon system acquisition. Changes in investment mixes are outlined in Figure 1.

BMDO Historical Funding

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
N M D	647	1048	1177	1423	1651	1583	1265	1916	1886	553	387	729	811	936	1687	961	2034
T M D	2	22	78	125	111	131	392	822	1103	1646	1970	2234	2423	2442	1838	2268	2000
Technology	748	1606	2025	2005	1965	1857	1431	1194	718	529	382	381	388	422	375	306	251
Other															273	324	458

* International Cooperative Programs, Intelligence Program, BMDO Architecture and Engineering, BMDO Test and Evaluation, Pentagon Maintenance Reservation Fund, HQ Management and Acquisition Program Reserve

NOVEMBER 2000

Source: *Ballistic Missile Defense Organization Budgetary History*. BMDO Fact Sheet PO-99-2. April 1999.

Figure 1. Trends in SDIO and BMDO Program Investments.

The Bush administration has stated that increased priority will be given to the development of defenses. In his confirmation testimony, Secretary Rumsfeld stated:

> ...Credible deterrence no longer can be based solely on the prospect of punishment through massive retaliation. Instead, it must be based on a combination of offensive nuclear and non-nuclear defensive capabilities working together to deny potential adversaries the opportunity and benefits from the threat or use of weapons of mass destruction against our forces and homeland, as well as those of our allies.[6]

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[6] *Statement of the Honorable Donald H. Rumsfeld* prepared for the Confirmation Hearing before the U.S. Senate Committee on Armed Services, January 11, 2001. It merits note that the Secretary's comments concerning defenses involve protection against both missiles and other types of threats.

C. Functions, products, customers, and resources

1. Functions

BMDO is chartered to establish ballistic missile defense (BMD) programmatic policy, requirements, priorities, systems, resources, and programs, and is accountable for the research, development, and engineering, and the transition of BMD systems to the Military Departments and Combatant Commands.[7] To accomplish this, BMDO:

- Provides for the procurement and fielding of BMD systems, and administers and supervises all programs, services, and items under the BMD Program.

- Develops programmatic policies and issues program guidance and direction to the DoD Components, consistent with U.S. national security policy.

- Establishes the BMD management network including BMDO, the Services, and other Agencies to execute all program activities.

- Establishes the systems and procedures necessary to coordinate integration of the overall Ballistic Missile Defense Program (BMDP) and the major BMD acquisition programs, and other acquisition programs, that directly relate to the BMDP's objectives for development and deployment.

- Develops systems standards and procedures for the administration and management of approved BMD plans and programs; establishes program goals and objectives; sets priorities; and evaluates BMDP activities of DoD Components in coordination with the USD(AT&L) and appropriate DoD officials.

- Prepares BMD budgets and program objective memoranda; determines priorities; and initiates reprogramming actions.

- Identifies Military Department, Defense Agency, and BMDO responsibilities for program execution, and in such cases where source-selection is not delegated to the Military Departments and Defense Agencies, retains that authority within BMDO.

- Oversees, in coordination with appropriate DoD Components, the participation of U.S. allies and friends in the BMD technical program.

- Provides periodic program reviews and milestone decision information to the Defense Acquisition Executive.

- Serves as principal DoD agency for presenting the BMDP budget to the Congress and as the principal public spokesperson for the BMD Program.

- Produces the acquisition portion of the Theater Air and Missile Defense Master Plan and serves as the Integration System Architect for theater air and missile defenses.[8]

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[7] DoD Directive 5134.9 *Ballistic Missile Defense Organization*, dated June 14, 1994.

[8] This is in accordance with a November 14, 1996 memorandum between the Under Secretary of Defense (Acquisition & Technology) and the Vice Chairman, Joint Chiefs of Staff.

2. Products

The preponderance (roughly 80 percent) of BMDO's current program involves major defense acquisition programs.

3. Customers

In conventional usage, "customers" are those who purchase a commodity or service.[9] By this definition, BMDO has few customers. Only a small number of the organizations the agency interacts with in a variety of relationships purchase commodities and services from BMDO. In the absence of a better term, "customer" is used here in a broader sense to encompass the organizations that directly receive products or services from BMDO.[10]

In this sense, BMDO has two sets of immediate customers. As an agency whose primary activities involve system development and acquisition, the first set involves the organizations, predominantly within the Military Services, that receive the defensive systems being sponsored by BMDO. Characteristically, these organizations are also partners, in some cases responsible for oversight and execution of portions of the BMDO program.

This same profile, in which Service development and system program organizations are primary customers, also holds for some of BMDO's science and technology programs. The "customers" listed for the approved joint theater missile defense Defense Technology Objectives that are at least partially funded by BMDO are Service organizations.

International partners are the other set of direct customers. These include Israel, Japan, Italy, and Germany. Also included here are collaborative activities with the Russian Federation.

As noted in information provided by BMDO to support development of this document, additional officials and organizations are, in some senses, "customers" for products and services provided by BMDO. Notable examples include senior OSD officials and their staffs, the Joint Staff, and the CINCs.

4. Resources

Historic and current funding data are provided in Figure 1 and Table 1. It is important to note that the data presented in these tables can be misleading if used to support inter-agency or agency-Service comparisons of resources, either at a single point

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[9] Merriam-Webster's Online Collegiate Dictionary, "customer. 1: one who purchases a commodity or service". Cambridge Online Dictionary: "customer; a person who buys goods or services".

[10] The JCS DoD dictionary does not define "customer." However, it does define a "customer ship" as the ship in a replenishment unit that receives the transferred personnel and/or supplies.

in time or as a trend. Much of what is shown as BMDO resources is funding that goes to the Military Services, e.g., technical programs accomplished at Service labs, or accomplished in projects that have Service managers. For example, for the FY2001 program, it is anticipated that one-half of BMDO's funding will be executed by the Military Services: 33 percent Army, 14 percent Navy, and 3 percent Air Force.[11]

BMDO staffing is outlined in Figure 2.

**BMDO Authorized Manpower
1984 To Present**
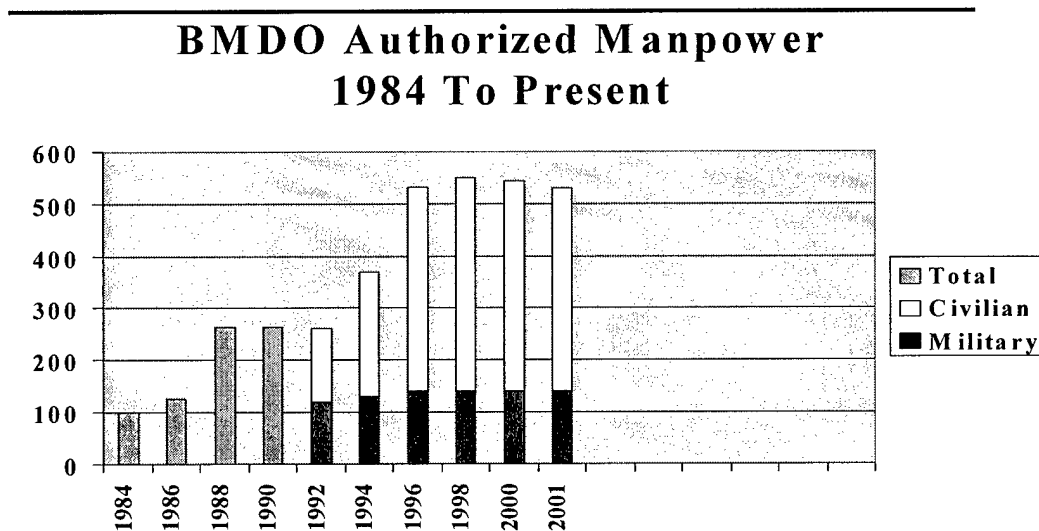
Note(1): Breakout by civilian/military staff not available 1984-1990

Note (2): All figures after 1996 are FTE vice end strength

Source: Information provided by BMDO.

Figure 2. Military and Civilian Staffing at BMDO

D. Schools of thought on the Agency missions and functions

A unique challenge for BMDO is that it executes programs that are controversial. This statement does not apply for all of the BMDO program, e.g., some of its theater missile defense programs. However, this is an issue for national missile defense, some theater defense programs, and some technology development efforts.

Controversies involve a number of issues: 1) Should the ABM treaty constrain NMD and TMD options? 2) What relative priority should be given to NMD vs. TMD? 3) What is the most robust mix of NMD or TMD capabilities? 4) What level of program risk is acceptable (or imperative) in the development of deployable NMD or TMD systems?

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[11] *Ballistic Missile Defense Organization Press Release. FY01 President's Budget.* 4 Feb 2000.

5) What are the best technology development bets, given research, experiments, and demonstrations to date?

E. Assessment

When SDIO was being established, consideration was given to a number of different management options, ranging from:

- A Manhattan Project-type organization having a director with plenary powers over the other Executive Branch agencies.

- A small (fewer than 20 people) OSD staff having only coordination, recommendation, and oversight responsibilities with all funding remaining within and under the control of the Military Services, Defense Agencies, and other government agencies.

The creation of the SDIO (later, BMDO) as a separate Defense Agency was a compromise. The most critical factors in all considerations were (1) control of funding, and (2) urgency of the mission. An assessment that there was high mission urgency led to the recommendations by some for a Manhattan Engineering District model. After considerable deliberation, the mission was given to DoD, a simple charter created for SDIO, and the first SDIO Director permitted to determine the authorities needed as he grew into the position and the agency mission evolved. With regard to control of funds, the greatest concern was that if funds were left with the Military Services and other government agencies, significant BMD program funding would eventually migrate into other priorities (tanks, ships, airplanes).

Consolidation of BMD programs through establishment of SDIO was accomplished in 1983-1984. Prior to SDI, the Military Services and Defense Agencies independently pursued BMD-related technology development and demonstration activities uncoordinated by any formal threat or requirement, mission focus, or architecture. No major defense acquisition programs existed prior to 1988.

As noted previously, the mission and programs of the Agency have evolved considerably in response to a changing world situation and significant changes in policy guidance. Different administrations have defined different priorities and parameters for these programs. The Agency has moved from an emphasis on exploring the feasibility of ballistic missile defense, with a focus on the threat of a massive Soviet ICBM/SLBM attack, to the actual development and production of systems designed to counter short-range missiles and limited long-range missile attacks. Along with this evolution has come a better recognition of the benefits that can result from having a single, consolidated mission area manager for BMD. Specific benefits perceived by BMDO management include:

(1) <u>Obtaining best solutions</u> – comprehensive assessment and integrated, best-value satisfaction of user requirements; solutions not influenced by parochial Service interests.

(2) <u>Lessons learned</u> – best posture to ensure technology transfer, common components, shared test results.

(3) <u>Interoperability</u> – ability to establish and enforce standards to ensure all systems can act synergistically on the battlefield.

(4) <u>Test support economies</u> – avoid duplication of test ranges, instrumentation, models/simulation and other test assets; common target development, production, and certification.

(5) <u>Pacing the threat</u> – Centralized planning and allocation of limited resources, from an architectural perspective, to respond to changes in threat/requirements; focused technology investments.

(6) <u>Single voice and POC</u> – Facilitates interactions with OSD, JCS, CINCs/users, the Congress, the press, and international partners.

In the 1999 biennial survey of defense agencies, none of the respondents from military organizations believed that another organization would be in a better position to provide the products and services currently delivered by BMDO.[12]

Table 3 provides an overview of this section, employing a format that facilitates comparisons with other portions of this analysis.

II. PERFORMANCE

A. Status of benchmarks and metrics

The preponderance (approximately 80 percent) of BMDO's program involves baselined major defense acquisition programs (MDAPs) managed using standard DoD processes, benchmarks, and metrics for evaluation of MDAPs.

A special independent review was chartered to appraise BMDO national missile defense programs – the NMD IRT[13]. This panel's review employed criteria similar to those used for appraisal of other DoD MDAP activities.

B. What the benchmarks and metrics show

There have been significant accomplishments in BMDO MDAPs. Notably, Patriot PAC-3 has transitioned to low-rate initial production.

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[12] Chapter D. *Report of Findings for Ballistic Missile Defense Organization.* 1999 Biennial Review of Defense Agencies and DoD Field Activities. Volume II.

[13] National Missile Defense Independent Review Team.

Table 3. Mission and Functions

Mission Statement
• TMD/TAMD – develop, produce and deploy rapidly relocatable, advanced theater missile defenses and concurrently produce acquisition portion of TAMD master plan and serve as integration system architect for theater and air missile defenses. • NMD – develop options for, and deploy when directed, an ABM system that protects the U.S. homeland from limited ballistic missile attacks. • Technology Development – pursue advanced technologies to reduce cost and improve performance of deployed systems and to pace the threat.

Functions	Resources*	Pricing Mechanism	Rationale	Performer	Customers
TMD/TAMD	$1,720.5M (38%)	Predominantly appropriated funds	Ensures focus and priority for programs that are not traditional Service missions/priorities.	Inherently military mission to develop defenses.	Predominantly system dem/val and engineering development programs for which military Service organizations are the primary direct customers. Also international programs for which foreign governments are the direct customer.
NMD	$1,916.3 (43%)				
Technology Development	NA				
*Estimates are for FY2001 based on the President's BES. These estimates are subject to change. Some technology development is embedded in the TMD and NMD estimates. The other major funding breakouts are: Family of Systems (5%), Support Technology (5%), BMD Technical Operations (6%), plus 3% of proposed funding distributed over threat/countermeasures, international cooperative programs, and other activities. Source: *Ballistic Missile Defense Organization Press Release. FY01 President's Budget.* 4 Feb 2000.					

In the 1999 Biennial Survey, customers of BMDO identified a number of issues involving major defense acquisition program-related criteria:

- Timeliness of product delivery was rated low.

- Insufficient responsiveness to customer priorities and requirements.

- Issues were identified concerning cost estimates, programming and budgeting, financial execution reporting, and selected acquisition reports.

The perspective from within BMDO is that these MDAP performance issues were due, in large part, to dynamic changes in program focus caused by an evolving world situation and frequent adjustments in program guidance from both Congress and the administration. In addition, this external environment was coupled with technical challenges, budget pressures, competing Service programs and demands, legislated urgency, and growing program/mission assignments.

The Agency's response has involved a number of measures: 1) increased emphasis on realistic test schedules and program objectives; 2) added funding for risk mitigation activities; 3) program office and prime contractor initiatives to improve quality control and overall program management; and 4) revisions to program acquisition strategies to provide for a block upgrade/evolutionary development approach in each program to expedite the fielding of BMD capability, reduce risk, and pace the threat. Additional initiatives include establishing configuration control over and standardizing for all MDAPs a Design-to-Threat; developing for each MDAP a Common Cost Methodology which is shared/used by the Program Office, the contractor, and BMDO; the initiation of a formal counter-countermeasures program to develop, assess, test, and insert into the systems software and other modifications to respond to unforeseen developments in the threat; and the use of CAIV, or cost as an independent variable, at the architecture and system levels to control costs (for example, the Theater High Altitude Air Defense (THAAD) program is achieving over $154M in cost savings based on implementing nine cost-reduction initiatives). A number of changes – summarized in a later section – have been made to management practices.

The June 2000 report from the NMD IRT concluded that national guidance had resulted in a high-risk schedule for NMD programs, and identified issues involving the authorities and responsibilities of Joint Program Office managers. The IRT recommended that more emphasis be given to threats that would be more challenging than the Capability 1 threat emphasized in initial development activities.

Some responses to the IRT's conclusions and recommendations were accomplished through provision of increased funding to enable purchase of additional hardware for kill vehicles and ground test equipment, and to support increased flight testing. Funding was also provided to achieve an expanded capability to deal with more challenging threats.

As shown in Figure1, there have been major changes since the early 1980s in the fraction of funding for defense that has been invested in the technology programs. This has been due to changes in guidance/priorities. Funding constraints also influenced spending. There is one major high-risk/potentially high-payoff technology program – the Space Based Laser. Much of remaining technology funding is directed at improving systems under development. Recent planning anticipates declines in science and technology (Budget Activity 6.2/6.3) funding. There is no basic research (Budget Activity 6.1) funding in the BMDO program.

A limited amount of information was provided by unified combatant commands requested to provide evaluations of Defense Agencies. All the information received concerning BMDO support was highly favorable.

C. Schools of thought on Agency performance

The principal sources for external evaluations considered are the results from the 1999 biennial survey and the NMD IRT presented in the preceding section.

D. Assessment and issues

There have been performance issues for MDAP activities. For NMD, national guidance has required a fast-paced and hence higher-risk program. BMDO has taken measures to respond to these issues.

From the perspective of the QDR, it is difficult to address these issues because the administration is in the process of reconsidering the basic guidance and priorities given to the Agency. There are, however, two sets of issues, neither of which is unique to BMDO, that may merit appraisal in the QDR.

The first involves the mechanisms used for department-level management, and oversight of department-wide programs. Issues involving program manager responsibilities and authorities identified by the NMD IRT are illustrative. The core issue is whether DoD is employing appropriate procedures and mechanisms for major activities that involve multiple DoD components. Some current processes may presuppose a different situation in which almost all development activity is accomplished within a single component, typically one of the Military Services.

The second set of potential issues involves funding. The situation for the Navy Theater Wide (NTW) program is illustrative. NTW is fully funded through FY2002. This will provide for completion of the test program and continuation of NTW development. However, funding is not sufficient across the FYDP to complete the program following initial system demonstrations. The department-level question is whether it is appropriate to have such inconsistencies in programming.

Tables 4 and 5 summarize performance information.

Table 4: Agency Metrics and Performance

Function	Metrics	Performance Assessments
TMD/TAMD	MDAP	
NMD	MDAP	
Technology Development	Small number of approved Defense Technology Objectives managed in accordance with standard DUSD(S&T) procedures.	With the significant exception of the Space-Based Laser, technology development has been de-emphasized in response to guidance that gives higher priority to system development/acquisition activities and because of funding shortfalls.

Table 5: Improvement Initiatives

Function	Outsourcing	IT/Process Initiatives
TMD/TAMD	BMDO does not have in-house RDT&E labs or system development organizations. Standard business practices involve accomplishing programs through the Military Services or by contractors.	Not focused on in this review.
NMD		Management practices changed in response to recommendations by NMD IRT.
Technology Development		Data centers developed to support RDT&E. Use made of DoD advanced computing resources.

III. MANAGEMENT

A. Agency management and governance structure

The Director, BMDO, is a three-star military officer appointed by the Secretary of Defense and confirmed by the Senate. He reports to the Under Secretary of Defense for Acquisition, Technology, & Logistics (USD(AT&L)).

In the identification of potential issues for other agencies, a question has been raised concerning the practice of having very senior (Under Secretary) officials serve as Principal Staff Assistants (PSAs) responsible for agency oversight. The basic argument is that Under Secretaries are necessarily very busy, and it may be unreasonable to expect them to accomplish this function. In the specific case of BMDO, this does not appear to be an issue, for several reasons. First, Director, BMDO has a different status than some other agency directors (given appointment by the President and confirmation by the Senate) which makes reporting at the USD level more appropriate. Secondly, BMDO has a very focused program. It does one thing – develop defenses (strategic and theater). This facilitates oversight. Finally, most of the BMDO program involves major defense acquisition programs, the oversight of which is one of thee primary responsibilities of the USD(AT&L). Having the USD(AT&L) serve as PSA for BMDO was not raised as a concern in our interviews.

The BMDO Director is assisted by a two-star Deputy Director, an SES Executive Director, and a Technical Director (SES-level, position currently vacant).

BMDO programs do not want for attention. There is a high level of Congressional interest. Both the Government Accounting Office and the Congressional Budget Office have developed recent appraisals of selected BMDO programs in response to congressional requests.

At the direction of the Secretary of Defense, the Director of BMDO chartered the National Missile Defense Independent Review Team (NMD IRT). BMDO has made changes to its NMD programs in response to recommendations from the NMD IRT.

B. Status of processes

There do not appear to be significant process issues. Formal oversight mechanisms include the following:

- USD(AT&L) is the Defense Acquisition Executive and chairs the Defense Acquisition Board, which reviews all BMDO MDAP programs.

- The USD(AT&L) receives Defense Acquisition Executive Summary (DAES) reports quarterly for each BMD MDAP. These program status/issues reports are a key input for program oversight.

- Other interactions with the USD(AT&L) and his staff occur on a daily basis with joint attendance at meetings and program reviews and discussion of issues. Additionally, BMDO relies on USD(AT&L) for information, guidance, and assistance when dealing with other OSD offices, such as in the review of draft program/budget decisions, development of program issues for Defense Resources Board consideration, and BMDO-authored congressional reports and responses to congressional questions.

Within BMDO, the leadership system is composed of the functional area Deputies and cross-functional corporate teams, or boards. Overarching the BMDO structure are corporate boards that are designed to ensure that all planning, programming, and technical issues are reviewed and adjudicated in a collaborative and integrated manner.

The BMDO Board of Directors (BBOD) is the most senior decision-making body within the Agency. Chaired by the Director, the BBOD is composed of BMDO deputies and directors, representatives from the Joint Staff, and Service BMD Program Executive Officers and Program Managers. The board's task is to ensure that substantive issues that require action involving policy, planning, program prioritization, and allocation of resources are properly vetted.

External independent reviewers include:

- The Ballistic Missile Defense Advisory Committee (BMDAC) provides an external forum for senior program and Agency advisors, together with representatives from government, industry, and academia. The BMDAC is convened by the Director, BMDO to assess and provide advice on significant issues facing the program and the organization.

- The Ballistic Missile Defense Strategic Architecture Study group, originally commissioned by the USD(AT&L), is composed of senior officials from BMDO, the Joint Theater Air and Missile Defense Agency (JTAMDO), the Military Services, and various OSD offices to examine alternative architectural concepts and to plot a course for the future.

- The previously mentioned National Missile Defense Independent Review Team.

Internally, several times a year BMDO senior managers conduct off-site conferences to focus on development of Agency goals. Tasks and objectives are assigned to appropriate functional offices and then tracked by the BMDO Director at weekly program reviews, organizational reviews, and monthly functional reviews.

In response to the continued transition from research and development to acquisition, and the increased scope of the BMDO mission, the Agency was reorganized in December 1999 to create a more flexible and horizontally oriented organization. In addition to realigning functions within the BMDO, Program Support Teams (PSTs) were established. The PSTs are established or disestablished as needed. They are teams of multi-disciplinary specialists tasked by the Director, BMDO to analyze, respond, and provide continuity of operations to specific issues. By employing matrixed BMDO staff, PSTs benefit from the synergies derived from combining technical, financial, and acquisition experts into a focused, integrated team. This provides BMDO senior management with significant flexibility in committing personnel resources based on mission requirements or unanticipated events. PSTs also represent the BMDO interface with the program managers and program offices. BMDO management's assessment is that, as a result of the PST recommendations and information management, the Director can more fully transmit program specific information, status, and financial projections to the USD (AT&L), while more quickly identifying, assessing, and resolving potential performance issues or challenges that must be addressed.

C. Pricing practices and initiatives

This category has limited relevance for BMDO. Few of its interactions and relationships involve customers that make purchases from the Agency. Because one half of its program is accomplished by the Military Services, these organizations have the same potential impact on cost-related matters as does BMDO. The Agency's international collaboration strategies attempt to take advantage of opportunities to amortize costs over a large base through increased (more economical) production.

D. DRI and related business practice initiatives

With regard to the DRI, BMDO is concerned with minimizing overhead costs, freeing up dollars to be applied to the technical missions. From FY1993 to FY2001, BMDO has progressively reduced overhead costs from 5.7 percent to 3.4 percent of total obligational authority (TOA). A 1996 GAO report confirmed that BMDO's management spending/staffing was at an appropriate level. Recently, BMDO created a special contract review board to assess headquarters requirements for support contractors. In its initial effort, the board was able to reduce spending by ten percent.

Changes in the BMDO mission scope and the transition to an acquisition organization led to a major reorganization in December 1999 designed to enhance the definition and alignment of BMDO core functions. In addition, PBD224R, dated December 17, 1999, placed the PEOs and PMs more directly under the supervision of the Director, BMDO to streamline communications and tighten program management. The BMDO perspective is that this has shifted the Agency's role away from oversight to one of insight and direct and helpful participation in program management. This clarification of authorities and responsibilities is congruent with one of the principal recommendations from the NMD IRT.

The Program Support Teams (PSTs), introduced previously, also support management. PSTs facilitate communication to resolve program issues and "run interference" for the PM by handling administrative tasks, such as OSD and congressional interfaces that would otherwise distract the PM from management of the program.

E.   Personnel and facilities management plans and initiatives

BMDO developed a comprehensive plan to integrate the entire Agency into a single facility from multiple Agency sites. This collocation effort is currently under way. BMDO will realize significant cost savings as a result of its consolidation of personnel and operations within the Federal Office Building No. 2. Because of improvements in productivity, elimination of redundant staff support functions and infrastructure, and reduction of staff travel time to multiple locations within the National Capitol Region, annual savings of $3.7M in facility costs and $2.9M in personnel costs are projected, for a total of $33M in actual savings to the government anticipated over a five-year period.

The BMDO headquarters community is composed of 389 government civilians, 141 military staff, and several hundred on-site support contractors. The far-reaching and complex nature of the missile defense mission requires that these personnel not only be empowered to address internal issues and challenges, but also to interact with members of Congress and their staff and all levels of management and technical personnel from various OSD and other DoD offices, other government agencies, and private sector industrial partners.

F.   Assessment and issues

Core issues involving the direction, scope, and pace of the BMDO program need to be resolved before emphasis is given to how the Agency manages these activities.

Table 6 summarizes points concerning supervision and management, using a format that facilitates comparisons across chapters in this report.

Table 6. BMDO Supervision and Management

Management, Oversight and Customer Interface	BMDO has taken recent actions to improve management of MDAP activities.
PPBS Review	No significant issues involving BMDO's POM and BES identified. There may be department-level issues involving the alignment of POMs for activities involving multiple DoD components, e.g., the fact that Navy Theater Wide is not fully funded across the current FYDP.
Performance Contract and Requirements	BMDO is not required to develop a performance contract.
Strategic Plan and Performance Plan	BMDO receives external guidance. Priority is given to standard DoD processes and practices for MDAPs. Its strategic plan and performance plan are consistent with this guidance.

IV. CANDIDATE QDR ISSUES

A. BDMO-specific

The administration and senior DoD leaders are in the process of making strategic decisions that will impact BMDO programs. Congress will necessarily be involved in these decisions, which may include addition or cancellation of programs. *It is recommended that consideration of BMDO-related matters in the QDR be deferred until senior-level decisions have been made concerning strategic and theater defense programs.*

B. Candidate DoD-wide issues for consideration

Are department-level PPBS procedures adequate for activities that are being accomplished in multiple DoD components? Are the types of solutions provided in PBD 224R sufficient? Specifically, have program integration and funding issues been resolved? Gaps in funding over the FYDP for the NTW program prompt this suggestion.

Are improved processes needed within DoD to support appraisal and implementation of new concepts – particularly when the proposals involve more than one DoD Component or CINC? Are there adequate department-level processes within which the following issues could be reviewed:

- For theater defenses deployed on Navy ships, is it better to use the Navy's current approach (sensor and interceptor co-located on the same ship) vs. an architecture that would locate the sensor elsewhere to maximize battle space? If the alternative architecture was a very large X-band radar mounted on a floating oil drilling rig, what processes would be needed to make this option competitive in either the Navy's acquisition program or in other acquisition processes?

- What different packages of defenses should be developed and deployed to meet the requirements of different CINCs? Does EUCOM, for example, need a very different defensive architecture than PACOM?

Should a new CINC be established with responsibility for both strategic offensive forces and strategic defense? This would be consistent with the new policy that deterrence is based on the integration of nuclear offense and non-nuclear defense capabilities.

Should processes be adjusted for DoD programs that are primarily driven by national policy requirements, as opposed to CINC military requirements? Is the JROC process the most appropriate mechanism for national priorities, such as strategic defense and counter-drug, that may not be high on the CINC priority lists?

Should there be department level guidance that establishes a minimum level of investment in next-generation breakthrough technologies? The investments needed to identify, appraise, and develop next-generation capabilities may not be competitive in a requirements-driven process.

C. Candidate issues involving BMDO and other agencies

The availability of joint duty positions has a major impact on the capability of BMDO and other agencies to attract and retain uniformed personnel. Approximately one-half of BMDO military positions are coded as joint duty. Joint duty positions within the Defense Agencies are examined by the Joint Staff during periodic reviews of combat support agencies. There does not appear to be an equivalent agency-specific mechanism for addressing this subject in the agencies, such as BMDO and DARPA, that are not combat support agencies. *Review of the department-wide impacts that result from the current allocation of joint duty positions may be warranted.*

IX. DEFENSE ADVANCED RESEARCH PROJECTS AGENCY

I. MISSION

A. Mission statement

The Defense Advanced Research Projects Agency (DARPA) is the central research and development organization for the Department of Defense. It manages and directs selected basic and applied research and development projects for DoD, and pursues research and technology where risk and payoff are both very high and where success may provide dramatic advances for traditional military roles and missions and dual-use applications.[1]

DARPA's mission is (1) to pursue unique imaginative and innovative research and development projects offering significant military utility; and (2) to manage and direct the conduct of basic and applied research and development projects that exploit scientific breakthroughs and demonstrate the feasibility of revolutionary approaches for improved cost and performance of advanced technology for future applications.[2]

B. Origins and rationale

Department of Defense Directive Number 5105.15, dated February 7, 1958, established DARPA (then referred to as the Advanced Research Project Agency (ARPA)). Congress endorsed DARPA's creation in Public Law 85-325, dated February 12, 1958. The law cited the authority of the Secretary of Defense, or his designee, "to engage in advanced projects essential to the Defense Department's responsibilities in the field of basic and applied research and development which pertain to weapon systems and military requirements as the Secretary of Defense may determine after consideration with the Joint Chiefs of Staff...." At the time of its establishment, DARPA reported directly to the Secretary of Defense. Over time this was modified; the Director of DARPA now reports to the Director, Defense Research and Engineering (DDR&E).

DARPA was established in response to Sputnik. At that time, there was no independent organization within DoD that could pursue major, large-scale, high-risk technology development programs outside of or beyond those of the individual Military Services.

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[1] DARPA website: www.DARPA.mil

[2] Statement by Dr. Victor Reis, Director, DARPA, April 23, 1991, before the Subcommittee on Research and Development, Armed Services Committee, House of Representatives.

DARPA was instituted to overcome an apparent failure of the existing R&D structure of the Services to provide the technological leadership needed to contend with capabilities demonstrated by the Union of Soviet Socialist Republics. While Sputnik was the single event, and itself not an actual threat to U.S. security, it provided evidence of a lack of attention to Soviet capabilities and priorities, especially in space and missiles, and their implications for national security. Moreover, it specifically raised the issue of scientific and technological expertise at high levels in DoD.

ARPA's initial priorities centered on three Presidential issues – space, missile defense, and nuclear test detection. Within a few years, the initial thrust for space programs had been transferred to the newly formed NASA (1960), and the main elements of the missile defense program (DEFENDER) had been transferred to the Army (1967). In the meantime, ARPA had received additional assignments, such as solid propellant chemistry and materials science. A small program on information processing "techniques" also began in 1960. And ARPA began a counter-insurgency program (AGILE) in support of the Viet Nam War effort (and was strongly encouraged to do so by OSD).

By 1967, ARPA had reached a point where there were concerns regarding its purpose and direction. The Viet Nam-focused AGILE program created considerable controversy, as well as internal dissension, and there were questions about what the Agency's focus should be with the transfer of much of the DEFENDER program (which accounted for about 40 percent of ARPA's budget). Moreover, the AGILE program also created a backlash against ARPA in the university community, which was the center of much of ARPA's most innovative technology research in both information processing and materials science. In this atmosphere, the DDR&E began to assert a stronger role in directing the Agency, based on his concern that it needed to refocus on "high-risk R&D of a revolutionary nature in areas where defense technology in the United States appears to be falling behind or in areas where we cannot afford the risk of falling behind."[3] Thus, ARPA began a period of searching, while also establishing strong linkages to the Unified Commands and the JCS, to better define programs and the means to transfer them to the military.[4]

In the mid-1970s, Secretary of Defense Brown and DDR&E Malcolm Currie turned to DARPA to address what they considered a looming crisis in U.S. military posture relative to the Soviet Union – the Soviet/Warsaw Pact military forces outnumbered those of NATO and were catching up technologically. By 1974, DARPA was given a central role in creating technological leap-ahead options to overcome the

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[3] ARPA Director Eberhardt Rechtin, Testimony before Congress, 1971.

[4] During this period a special advisory program – the New Alternatives Panel – was established to think through the military implications of emerging technologies and address the military strategies that might be enabled by these new technologies.

Soviet Union's numerical superiority. DARPA pursued an explicit investment strategy looking out 10 years, organized around a set of technical thrusts:

- Follow-on forces attack with stand-off weapons and associated C^3: ASSAULT BREAKER
- Tactical armor and anti-armor
- Infra-red sensing for space-based surveillance
- High-energy laser technology for missile defense
- Anti-submarine warfare
- Advanced cruise missiles
- Advanced aircraft (including STEALTH, Forward Swept Wing, RPVs)
- Defense applications of advanced computing.

These thrusts –akin to the initial ARPA thrusts in space and missile defense – were large-scale, programmatic efforts that focused on scaling up of technical concepts into major demonstrations of proof-of-concept prototype systems. DARPA's budget doubled over five years and continued to rise over the decade of the 80s, as several of these thrusts matured.

By the early 1980s, several of these large-scale programs were transferred to the new Strategic Defense Initiative, which was subsequently renamed the Ballistic Missile Defense Organization (BMDO). ASSAULT BREAKER was transferred into advanced development through joint Service programs. Another major thrust was begun: the Strategic Computing Initiative, its purpose being to stimulate the evolution of a range of emerging information-processing technologies into applications. While DARPA's earlier support for these technologies had shown promise, the question was how to scale them up into applications that could directly influence defense.

By the mid-1980s, DARPA had transitioned most of the initial systems-demonstration thrusts begun in 1975 and was placing heavy emphasis on information processing and related microelectronics. DARPA also was given three relatively large electronics programs to manage – SEMATACH, Advanced Lithography, and MIMIC – which were focused on production processes and manufacturing, rather than on advanced technology. Continuing from ASSAULT BREAKER, target detection and acquisition remained a focus of research.

DARPA entered the 1990s having earned a reputation for successfully producing notable breakthroughs in military technologies, including STEALTH, stand-off attack, and precision guided munitions, as well as having made substantial contributions to the transformation of information processing by fostering such technologies as time-sharing, interactive computing, "ARPAnet," parallel processing, artificial intelligence, and advanced microelectronics. With the collapse of the Soviet Union, DARPA faced a

period of uncertainty and redirection. A major thrust from the White House – the Technology Reinvestment Project – was begun in 1992 as a specific effort to foster "dual-use" technology development and was funded at close to $1B over three years. A program in microelectromechanical systems (MEMS) was begun, somewhat parallel to DARPA's prior support for microelectronics technology. And flat panel displays were the focus of a DoD initiative largely centered in DARPA. High performance computing, high density data storage systems, and wireless mobile computing and communications also were given explicit attention.

By 1995, the emphasis on dual use was supplanted with a greater focus on military applications in response to *Joint Vision 2010* as the underlying concept for joint warfighting in the post-Cold War era. A key concern raised in this document was the potential of a future adversary to make rapid improvements in military capabilities that may "provide asymmetrical counters to U.S. military strengths." DARPA placed major focus on information technologies as the means to maintain dominance in the future battle environment. Key elements of this investment profile included UAVs for wide area surveillance; target acquisition and recognition – both stationary and moving; joint forces communications and information processing; information security; and biological warfare defense. The Biological Warfare Defense Program was a DARPA-initiated effort to develop and demonstrate technologies to minimize impact of biological weapons on U.S. operations. Advanced Concept Technology Demonstrations (ACTDs) were used as a key vehicle for transitioning DARPA-developed technologies to the warfighter. ACTDs included semi-automated imagery processing; battlefield awareness and data dissemination; and detection and cueing of targets using foliage-penetrating radar. DARPA's tech-base programs focused on information, computing and electronics, advanced materials, and hybrid technologies. Some areas of concern were image exploitation, video surveillance, automatic target recognition, Intelligent Integration of Information, and optoelectronics processing. Micro air vehicles (MAVs), extremely small UAVs, also were explored.

During the 1990s, DARPA engaged in three major weapons platform development programs directly related to Military Service concerns: the Arsenal Ship for the Navy; the Unmanned Combat Air Vehicle (UCAV) for the Air Force; and the Future Combat System (FCS) for the Army. These thrusts all had common features, but they also varied in their origins and their relationship to the sponsoring Military Service. These programs were a departure in both DARPA's and the Services' approach to fostering systems-level innovation, and are discussed further below.

C. Functions, products, resources, and customers

1. Functions

DARPA has sought to define and differentiate its function in the Department of Defense from those of other R&D organizations. Figure 1 shows how DARPA explains how what it does differs in comparison to what the Service R&D organizations do. This concept of a highly flexible organization focused on radical change and explicitly *not* on currently defined military requirements driven by technological opportunity and external events has led to the definition of a set of functions that in turn have driven both DARPA's organization and budget over time.

DARPA's Role

DARPA		SERVICE R&D
Bottom-up, opportunity, event-driven	★	Top-down, requirement, schedule-driven
Great process flexibility	★	Highly formalized processes
Integrated research	★	6.1 - 6.5 research separated
Radical change	★	Reliable, sustainable gains
Central DoD agency for R&D	★	Support Service mission
Tolerant of high risk	★	Risk-averse
Planned product obsolescence	★	Planned product improvement

The DoD requires both radical innovation and requirements-based R&D

Figure 1. DARPA versus Service R&D

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2. DARPA as DoD's "special projects agency"

DARPA began with the specific mission of developing advanced technologies to maintain the technological superiority of United States military capabilities. The concern was based on the demonstrated capabilities of the USSR in technologies of strategic importance that led to Presidential assignments of space, missile defense, and nuclear test detection to the Agency. Space and missile defense shared some key features: they were heavily charged with inter-Service rivalry; there were very wide ranging differences on

the nature of the work that should be done; and they entailed very large, risky programs. The test detection program drew high-level attention in the context of treaty negotiations.

Following its charged beginning, DARPA was seen as DoD's "Special Projects Agency" to devise the "vast weapons systems of the future." Such programs as ASSAULT BREAKER and STEALTH clearly fall into this category. Thus, system-level proof-of-concept prototyping of "change-state" capabilities has been a consistent focus of the Agency. The recent platform-oriented programs, Arsenal Ship, UCAV, and FCS, build on that tradition, but differ in that they were initiated in direct agreement with a Service, while earlier DARPA systems concepts generally were initiated in DARPA or from OSD and, subsequently, a Service or Services were brought in. This change has both positive and negative aspects, as will be discussed below.

3. DARPA as the "disruptive" technologies agency

DARPA has also been the supporter of persistent investment in a set of core technology research areas. These are technologies that are viewed as potentially "disruptive" or "change-state" in nature, and that are more indirectly related to the development and fielding of actual weapons. Most prominent of these areas have been sensing and surveillance, computers and information processing, advanced materials, and directed energy systems. Through these programs, DARPA fulfilled another highly significant role – the persistent pursuit of nascent technology areas of great potential and broad, but not well-determined, application.

These two aspects of DARPA's implementation of its mission provide a constant tension within the organization. The large-scale, high-risk system prototype projects are high-visibility, entail relatively high costs, and bring attendant management burdens, including the possibility of becoming sinks for continued funding to achieve results after having gotten so deep into the investment. Given the unknowns associated with DARPA's system-prototype projects, knowing when to terminate or transfer a project can be difficult; and the larger the investment, the harder this decision is to make.

In contrast, the technology-oriented programs challenge management to balance the pursuit of interesting, innovative discovery, usually performed in academic laboratories, against the need to show results that have prospects of scaling into militarily-relevant applications. In finding means to scale-up fundamental invention and move from exploratory science into applications, DARPA plays what some have described as a venture capital role. This brings the attendant risks of determining which technologies and which performers to select, how to manage the portfolio to achieve success, and how much and how long to support any particular approach or performer. Added to DARPA's undertaking, a technology area often has another role – supporting the underlying technology that provides the infrastructure for the advance of a discipline or technology area. DARPA's support of the MOSIS facility for computer chip design is

an example of an underlying infrastructure capability that was deemed necessary to stimulate the development of very-large-scale-integrated (VLSI) circuits. DARPA has played a seminal role in several underlying technologies, with information processing being the primary example of a "stewardship" role in developing a broad program of key enabling capabilities that are mutually supporting. However, constant effort is needed to guard against perpetually supporting a technology area, or sub-sectors within it, without constant appraisal of alternative technologies that may offer greater prospects or payoffs.

4. DARPA as DoD's quick response technology agency

A third element, or function, was added to DARPA's initial charter; it has been called upon to be the "quick-response" military technology delivery agency. This has occurred sporadically in response to explicit needs of military operations by the Office of the Secretary of Defense. Most prominent of such responses was the AGILE program during the Viet Nam war. This short-term, "need-driven" application of technology was a channeling of DARPA expertise and the use of its flexibility in obtaining knowledge from the technical community. While there were several payoffs – including important contributions to night-vision, UAVs, and foliage penetrating radar – there were costs. One was an increase in tensions among existing Service technology development organizations.

The history of DARPA's involvement in such flexible-response technology applications indicates there is no clear-cut formula for defining when DARPA should be called upon to step into the development of a relatively prosaic, near-term applied weapons technology, rather than have it pursued by the "appropriate" Military Service. As will be discussed below, one arena for such involvement is to meet "joint" needs, especially in the command and control area, which Service programs generally have not given sufficient priority.

5. DARPA as the joint systems capabilities developer

The "joint" environment is a domain that has received increasing attention from DARPA. The Agency has been a focal point for developing military capabilities that span individual Service roles, especially in command and control, and surveillance and reconnaissance. An area where this applications focus has tended to cause difficulties is when the application includes endgame targeting and fire. This is where DARPA support of joint capabilities becomes enmeshed with Service interests in weapons platforms. As the future warfighting environment becomes increasingly "joint," as is projected in such documents as *JV 2010* and *JV 2020*, there is increasing likelihood that DARPA and Service *priorities* may come into conflict.

The flexibility and capability to deal creatively with a military problem when the Services may not be able to do so is seen on a larger scale with regard to Service-specific

military platforms, such as Arsenal Ship, UCAV or FCS; but these are explicitly focused on seeking fundamental change-state capabilities to existing platforms, not incremental improvements or applications. The problem in this regard is that Service interests, even if they are aimed at change-state, still tend to be driven to Service-specific solutions. This possibly places DARPA in the awkward role of either helping the Service achieve a solution within the Services' own domain, or risk losing the Service's interest and support with a DARPA-proposed approach that brings with it an operational concept that is incompatible with that of the Service (especially if it is "too Joint").

6. DARPA as the national technology steward

During the mid-1980s and into the early 1990s, DARPA was given a major role in what might be called another arena of programs: providing a technology organization to support broader national competitive capabilities. SEMATECH, MIMIC, and Advanced Lithography were programs that DARPA inherited from OSD in a reorganization of its science and technology programs, that did not mesh with the DARPA charter on advanced research. Their relationship to military applications is also more indirect, as they focused on microelectronics components and related production processes. SEMATECH was explicitly non-military; its focus being exclusively on supporting U.S. commercial microelectronics production know-how. The Technology Reinvestment Program (TRP) of 1993-95 can be considered another example of DARPA being given a charter, this time from the White House, to lead a program outside the core of advanced technology research. TRP was focused on transitioning dual-use technologies into applications and commercialization as part of a broader strategy of fostering technological innovation and competitiveness. Generally, all these programs can be linked to fostering technological superiority for the United States and also can be linked, indirectly, to bettering military capabilities. In this regard, they can be seen as similar to the very early DARPA assignment in Advanced Materials – the Materials Research Laboratory. The work of these "competitiveness"-oriented programs generally is aimed at a much broader scope than explicit DoD interests, extending to the industrial base of the country.

7. DARPA's resources

DARPA's funding profile, show in Figure 2, has oscillated in relation to several factors: the perceived need by national security leadership for threat-driven innovation; the opportunity or prospect to scale-up major technical developments into systems-level capabilities; and the general position of research and development in the priorities of the Administration and OSD. With the Sputnik-created challenge, DARPA was allocated an initial funding $500M – which today would be equivalent to about $2.50B. With the space program transferred to NASA, the budget dropped by about half. By 1968, with the transfer of DEFENDER to the Army, it fell below $1B, in constant terms. The Agency's

budget fell to below $500M in constant dollars by 1973, indicative of a time of fundamental reduction in defense R&D in general, and of DARPA's role in particular. Based on a high-level OSD imprimatur, DARPA began an ambitious set of technology thrusts in 1975 to provide the technological capabilities to overmatch the USSR and checkmate their numerical gains. This investment steadily increased DARPA's budget back to $1B (constant) in six years, and continued to rise through 1984. In 1985, the budget dropped sharply when the several of the largest system-level projects were transferred to the newly-created Strategic Defense Initiative, but then continued to rise steeply from 1985 to 1994 (peaking at $2.5B) as DARPA completed several large-scale system-prototyping programs (ASSUALT BREAKER, TEAL RUBY) and began another major thrust, the Strategic Computing Program. With the demise of the USSR, DARPA's budget dropped, as did that of all Defense acquisition. Since 1997, DARPA's budget has stabilized at roughly $2B.
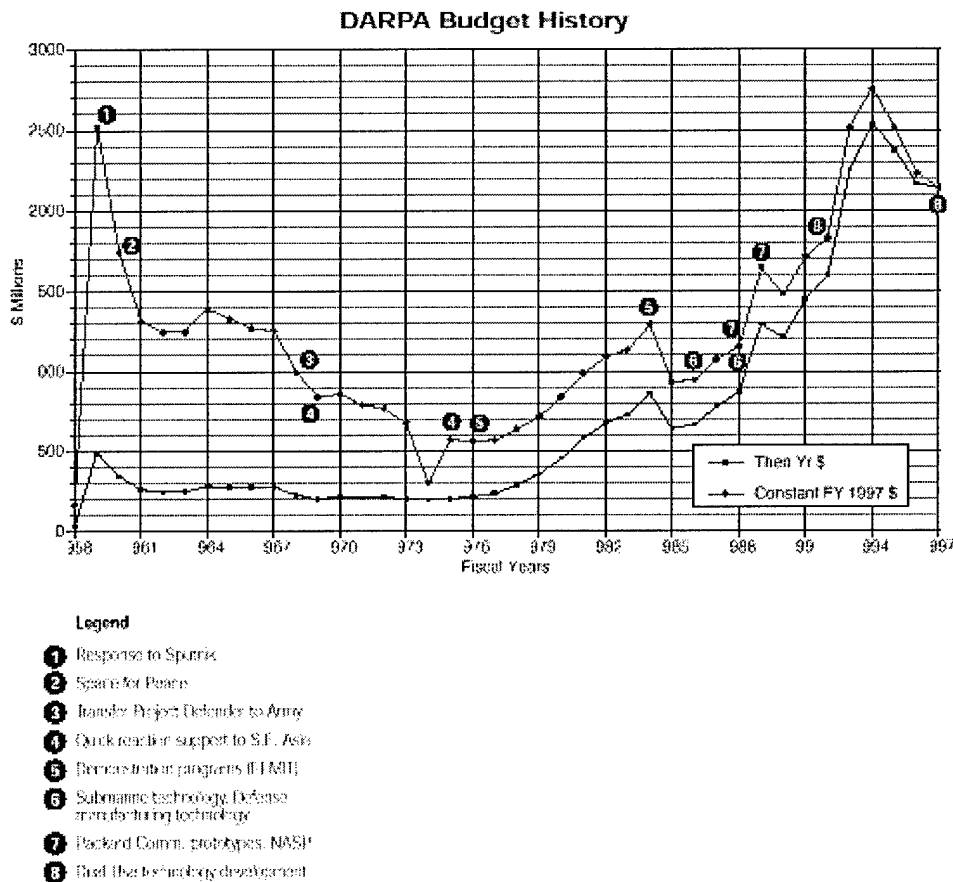
Figure 2. DARPA's Budget – 1958-1997

DARPA

Over time, DARPA has allocated sharply different mixes of resources into its various functions. At the outset, it placed the bulk of its resources into the space program, which essentially was a major systems engineering enterprise. It also undertook the diverse DEFENDER program, which was a mix of system-level prototyping, large-scale science experiments and facilities developments, and fundamental science. Importantly, the scale of the science, let alone any prototype development, of the DEFENDER and subsequent missile defense programs was such that they were resource-intense endeavors. In the early 1970s, DARPA essentially focused on technology development, with very few resources going into system-oriented developments. This changed dramatically after 1975, with the system-level prototype developments growing to dominate the budget.[5]

The growth of DARPA's budget after 1990, after the USSR collapsed, couples the culmination of some of the later system-level technology-thrusts (including the National Aerospace Plane) with the scaling-up of the information processing technologies, the addition of the microelectronics "competitiveness" projects (SEMATECH, MIMIC) from OSD, and the impact of the Technology Reinvestment Project, which added $600M to DARPA's budget in 1994, then was scaled back over the next two years.

The DARPA budget over the past five years has been rather steady at just over $2B. The mix of resources has been about 60 percent in 6.3 Advanced Technology Development; about 33 percent in 6.2 Applied Research; and about three percent going to 6.1 Basic Research. DARPA management states that it seeks to maintain 40 percent of its investments in core technologies (6.1 and 6.2).

There have been suggestions that DARPA's budget be substantially increased, perhaps doubled, to allow it to go further into the prototyping and transitioning of its systems-scale developments. After the Packard Commission report in 1986, some were pushing to give DARPA a more extensive role in system-level prototyping. DARPA commissioned a special study to review this option, but concluded that this enlarged role would threaten the organization's capability to flexibly respond to new technology opportunities and would create increasing pressures on the technology element of its budget. There are again concerns being raised, including congressional interest, regarding funding for the maturation and transition of DARPA large-scale prototype programs.[6] This issue is magnified by the gaps between DARPA and the ACTD program, arising from the lack of funding to mature DARPA system-level prototypes to the point where they can be appropriately demonstrated as ACTDs.

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[5] It should be noted that even as he was scaling up these technology thrusts, DARPA Director George Heilmeier recognized the need to foster, and even protect, the innovative research component of DARPA. See Van Atta, et al, *DARPA Technical Accomplishments*, Volume III, 1990, pp. II-15-II-17.

[6] "DARPA Technology Transitions and DoD Force Transformations," Richard O. Hundley and Eugene C. Gritton, RAND, circa January 2001.

This is a significant budgetary and management issue. There is a shortfall in funding for developing major systems prototypes, especially if these are for systems that fall outside individual Service domains. But even for prototype developments that are explicitly of interest to a Service, as the example of UCAV shows, the PPBS creates a transition gap of two years. Services are not going to put a system in their POMs until they ascertain the program meets Service requirements. But at the time it is willing to do this, it is already too late to get it into the budget until the year after the decision: thus, two years will have gone by with the program in limbo. For programs that are not of direct interest to a Service, DARPA in essence has had to maintain them in a holding pattern – further maturing them – while it seeks a Service customer, further drawing out the transition time.

In addressing this technical maturation issue, DARPA's current management is very leery of growing the organization much beyond its current scale. In their view, more people and money would not be helpful, but might be harmful. A larger, say doubled, DARPA would risk losing its flexibility and adaptiveness and would risk becoming another bureaucratic organization in which innovation is stifled. Since DARPA's core mission is to be the innovative, opportunity-creating organ for DoD, they feel this would be a serious detriment to its effectiveness.

This then raises the issue of how to best pursue "beyond-proof-of-concept" prototyping of advanced, innovative capabilities within DoD. Is a mechanism needed to provide resources for the next level of product development – somehow linking DARPA and the potential customer (user) and the potential developer, bringing in other parties as well, such as logistics? The ACTD program is currently designed to demonstrate advanced concepts, not further develop them. Services are not the appropriate organizations, if the price of their involvement is to reduce the scale of the innovation of the concept or reduce its joint capabilities. If such product development is not done by DARPA, is there any reasonable alternative organization that can be established to do this?

In the current "era of experimentation," when the exact nature of the conflict environment is uncertain and changeable, the investment in alternatives and options that DARPA provides should be maintained. DARPA currently has a set of specific areas of technology exploration – such as nanotechnology – that are viewed as relatively high payoff prospects, but entail high technical risks (about 40 percent of the budget); it has a set of MOAs with Services (e.g., FCS, UCAV) that are bilateral agreements, these are not easily cut back without seriously impairing the agreement. It has two major, high-level thrusts –bio-chemical defense and information assurance – that require a critical mass to execute. Joint capabilities in surveillance, reconnaissance, and targeting, especially using internetted assets, require continuing effort. DARPA's budget today is scaled

appropriately to these endeavors. As will be discussed further, there are emerging risks in this budget as it relates to issues with specific "customers."

8. DARPA's "customer" issue

DARPA was chartered to provide the Secretary of Defense with the ability to pursue advanced technologies and concepts that had the prospect of fundamentally altering military capabilities. From the outset, this placed DARPA in an awkward situation regarding its relationship with the traditional defense acquisition community. In some ways, DARPA has been tasked by the Secretary of Defense to think of ways of developing and employing technology that makes the Services' existing capabilities obsolete. In its advanced technology research and development, such as microelectronics, information processing, and advanced materials, DARPA has worked with university laboratories and commercial firms to foster technology. Industry, both defense and commercial, is a consumer of DARPA's technology results, with firms often investing substantial resources of their own as part of their "partnership" with DARPA (in fact some programs have made such investment a criterion for involvement). Moreover, existing industrial firms are usually not the greatest beneficiaries, as more often than not DARPA's innovation threatens existing firms, since its innovations have frequently been developed by start-up firms.

9. DARPA–Service relationships

DARPA is often being channeled to address shorter time-frame problems more directly with individual Services – partly to address issues of transition, partly to gain support for funding. The issue of a Service-DARPA "partnership" was most recently and explicitly raised in the context of the Future Combat System (FCS). The issue is whether the FCS will drive DARPA into a too-short timeframe relative to DARPA's capability to adequately conceptualize, experiment with, and appropriately develop the FCS's radical concepts. There is concern at DARPA that programs like FCS can become much too focused on near-term, "show me what you can do now" results that counter what DARPA can uniquely bring to the table. On the other hand, the FCS is a radical change of focus for the Army and clearly challenges its processes for testing, experimenting, and absorbing such a revolutionary approach. As discussed below, *there are risks technically and organizationally for both DARPA and the Army in taking on this type of partnership.*

10. DARPA and the joint community

Since the Goldwater-Nichols Act, DARPA has focused considerable attention on solutions to joint-Service systems and problems. Roughly the same fraction of DARPA's budget currently goes toward joint activities as to Service-unique ones.[7] DARPA has

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[7]*DARPA Over the Years*, DARPA website, www.DARPA.mil.

played a major role in fostering joint systems capabilities. Yet DARPA's ability to develop such capabilities beyond proof of concept into applications developments is hampered by the Service-centric acquisition system. This is further complicated by the lack of defined roles in providing joint capabilities – for example, C3I, NRO and the Air Force in surveillance capabilities – when in fact these are essentially joint assets in CINC operations. DARPA's ability to develop capabilities to meet broader needs in joint operational systems is hampered by poorly defined responsibilities and transition paths in the "user" community.

11. DARPA and ACTDs

The ACTDs are a mechanism designed to enhance the transfer of technology developments into operational use, and thus ostensibly provide a key mechanism for DARPA-customer interaction. DARPA provided the major technology inputs to the initial ACTDs. The capability of ACTDs to serve as a mechanism for fostering the transition and application of technologies into military applications appears to have deceased demonstrably, and the relationship between DARPA and the ACTD program has almost completely collapsed. One major issue is that funding for ACTDs now comes nearly 90 percent from the Services, which leads to much less focus on breakthrough or change-state capabilities. An examination of ACTD-DARPA relationships in fostering technology applications is needed, and substantial funding outside of individual Services is likely to be needed to make the linkage work.

DARPA management's view is that the ACTD process is in essence a one-way demonstration for the potential acquisition organization, when what DARPA feels is needed is a means to work with potential users in an "experimentation" process – one that includes feedback back into DARPA's technology development. DARPA sees ACTDs as being essentially "one-shot" – taking the (relatively risk-free) technology and showing it to users to determine interest and see how it can be used (in terms of CONOPS, etc.). From DARPA's standpoint, there is a need to be more interactive and iterative with the user. ACTDs do not do this.

DARPA also has found that there are several other venues for "experimentation" with users – e.g., experimentation directly with the CINCs, the Service Warfighting Labs, and Service ATDs. While in some ways (for some purposes) the existing ACTD motif has been inculcated into the Services and the CINCs, the ACTD program *per se* may not be as essential as it once was. *Service-centric experimentation usually narrows the scope and is not likely to address the broader Joint aspect of system-of-systems development and implementation.* In this regard, there appears to be a structural problem in the process for addressing joint technology development, especially in the area of command and control. Yet this appears to be the heart of *JV2020* and such notions as "network-centric" warfare.

DARPA has to choose whether to invest its resources in ACTDs or other means for linking innovation to the warfighter, such as Joint Warfighting Experiments (JWEs). DARPA develops new concepts and technology that (potentially) "obsolete" current approaches. The degree to which DARPA takes these forward as "proof-of-concept" prototypes usually means there is substantial technical risk in the approach – especially as it relates to executing specific operational objectives. Yet ACTDs as currently conceived are intrinsically technology-risk-averse – explicitly they are (under the current approach) to *demonstrate* "mature" technology. *This raises significant issues concerning system-level prototyping beyond the "proof-of-concept" stage.* This is addressed more fully below.

12. DARPA and prototyping

DARPA has a major responsibility for developing proof-of-concept prototypes of potential military capabilities that are (1) major changes in existing military approaches, and (2) driven by opportunities and broad needs, rather than by existing requirements. The resources and responsibilities for pursuing the development of large-scale prototypes need to be given explicit focus and attention, especially the means for developing these into application-focused efforts when they are generally cross-cutting and joint in nature. This implies addressing mechanisms beyond DARPA that can have responsibility for funding and implementing change-state system-of-system-level capabilities.

DARPA does not do "full-up" prototyping (e.g., EMD-ready systems). This is especially an issue with non-platform, or "above platform," systems that integrate between and among platforms. If a proof-of-concept prototype is in essence a Service-specific system (e.g., Stealth fighter or Arsenal Ship), then it is reasonable to believe that the transition to a fuller prototype development should be with that Service (as was the case with Stealth). The problem appears to become greatest in areas where either Service interest is relatively low, given its own internal priorities (such as urban warfare for the Army), or where the area is one that does not fit into a single (or any) Service – especially joint capabilities. ASSAULT BREAKER is an example of where a broader concept was "watered-down" by individual Service developments to make it more compatible with existing operational approaches. In its transition to the Services (Air Force and Army), an intrinsically joint operational concept was lost.

Based on this assessment, a serious look needs to be taken at *advanced prototyping* – How should it be done? Who should do it? How should it be funded? What should the relationship be between those developing truly advanced capabilities (DARPA) and those responsible for implementing them, particularly when these capabilities are either cross-cutting or serve to integrate Service capabilities? How should this be linked into the joint experimentation process? How should the CINCs play in such prototyping and development?

Joint program offices as spin-offs to DARPA programs are one means – and this should be further examined. But JPOs have been criticized as one-shot temporary mechanisms that devolve too often into Service-specific compromises rather than maintaining the initial joint perspective of the concept. Are current and proposed developments in the JROC organization and management effectively addressing this aspect of technology development?[8] *Do existing processes and mechanisms, such as Joint Warfighting Experiments, provide adequate evaluations of the military potential of breakthrough technologies and alternative prototypes?*

D. Assessment and issues

DARPA's mission as the DoD organization responsible for defining and developing technology options that can have potentially change-state impact on defense capabilities arose from a recognition that individual Military Services would not, and perhaps could not, give such a focus adequate attention. DARPA pursues technology capabilities that are not yet formulated as military requirements, often based on technologies that are not yet proven.[9] It also fosters research into underlying "emerging" technologies about which little may be known to determine whether these have potential to support radical new capabilities with major impact. There is very little disagreement regarding these central aspects of DARPA's mission or that these tasks must be undertaken in an organization separate from the individual Services.

Over time, there have been considerations that the mission is no longer as important or crucial as it once was; during the Viet Nam era, for example, there were some who felt that DARPA had done what it had been created to do, and was no longer needed. But within a decade thereafter, DARPA became the central agency for devising the change-state technology thrusts that provided the military technological superiority component to U.S. defense posture relative to the USSR. With the demise of the USSR, it is reasonable to ask whether the role of technology leadership is still a fundamental aspect of U.S. defense posture, and whether "leap-ahead" technologies of the type that DARPA has provided are still needed. On a general level, with the ambitious concepts

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[8] The JROC and the CINCs need to play a stronger role. The new Capstone Requirements Documents (CRDs) define needs for an entire mission area; e.g., hard target defeat, counter proliferation, in a manner that supports development and appraisal of alternative system concepts for responding to these validated needs. The Chairman's Program Assessment is another important mechanism.

[9] DARPA has considered developing new solutions for already solved current requirements (such as Project AGILE in support of the Viet Nam war), but usually only if the new fixes were an order of magnitude better (e.g., 1/10 cost). The key point is not whether "military requirements" have or have not yet been defined. It is that DARPA exists to develop leading-edge technology solutions for both current and further future problems. Part (but only part) of this DARPA mission involves situations in which radically new technologies/applications enable fundamentally new missions – things that were not thought about because no one knew they could done (such as observing earth from space in the pre-World War II era).

presented in such documents as *JV2010*, it is clear that high-level defense officials believe strongly that the nation's security still requires major innovative technologies that are beyond those likely to be developed solely through the Service technology development and acquisition process. The Military Services apparently believe this as well, as each in turn has come to DARPA to have it develop advanced weapons platform concepts for them.

The issues regarding DARPA's mission are primarily

- the boundary conditions for DARPA's technological innovation pursuit – how far into what technology areas, and for what purpose?

- the relationship between DARPA as the technology innovator and the movement of that innovation into military application.

- the degree to which senior DoD leadership has opted to use DARPA to develop transformational capabilities, providing DARPA guidance and direction for focusing its technology innovation.

Throughout its history, when given no other guidance or direction, DARPA has operated autonomously on addressing its technology investment profile and determining opportunities to link its developments to military applications. Often in such periods it has devolved more into a Military Service technology support organization, raising the question of why DARPA is doing the work, and not an individual Service. Especially during such periods, DARPA is pressured by the Congress, OSD, and the Services to show relevance in terms of programs or technologies successfully "transitioned" into application. There is a tendency for DARPA management during such periods to orient programs toward more explicit Service interests. Even though the current Future Combat System program with the Army is aimed at a risky, transformational concept, and thus clearly can be considered appropriate in this regard for DARPA, DARPA's taking on a Service-specific advanced development concept of this sort raises concerns. One concern is whether the Army will allow for the consideration of technological approaches that extend the operational concept beyond those of the individual Service. A second concern: whether the Army's timeline for implementation is compatible with development of the technical concepts envisioned.

At other times, especially at its beginning, and then again in the 1975-90 time frame, DARPA had strong guidance regarding the key problems that the Secretary of Defense, the Chairman of the JCS, and even the White House wanted it to address. The strategic focus was provided by executive direction. In the immediate post-Cold War period, direction of this type was relatively unclear, as the U.S. was evaluating how to posture its defense in an entirely new, and not well-understood, era. With relatively inchoate guidance from higher levels regarding the significant national security problems to address, DARPA fell back to focus mainly on two areas: pursuit of interesting, possibly high-payoff technologies (such as MEMs); and closer support to Military

Service technology issues. It also was given an additional focus: addressing concerns about national competitiveness in electronics technologies.

After over a decade, the new era of national security is becoming clearer, raising the question: is it not now time to again specifically formulate a vision of the major security problems confronting the country, and the technological foci that could give the United States the change-state technological superiority to address them? Should not the Secretary of Defense determine the strategic focus for DARPA and to do this, establish the process for its determination? This is not the same thing as day-to-day science and technology program planning as is conducted by the Services and OSD. It entails a high-level fusion of policy, operational, and technological input to address how technological innovation can provide fundamental strategic advantage to sustaining U.S. security in this new era.

II. PERFORMANCE

DARPA's strategy is simple, and brutal. The Agency must be flexible and able to quickly exploit emerging situations. This is a reflection of the view that, in this changing world, events taking place outside of the customary DoD establishment may very well have the greatest effect on national security. DARPA emphasizes problems that are both difficult technically and focused on a desired outcome. The Agency emphasizes competition at all levels, believing that in the quest for innovative solutions, outside stimulation is essential. It has a much broader research horizon than a commercial venture capital firm. It can fund an idea or build a full-scale prototype of a system. It can focus its work into outcomes when needed, without using the peer review process prevalent in university research. Finally, it can work on national security needs without there being well-established military requirements. Since DARPA performs its job in a manner more like an investment house than the traditional government R&D institution, its organizational structure is flat, and it uses contracts with industry, labs, and universities to get work done. The Agency owns no facilities, and has a very lean staff. It has the use of flexible contracting and hiring authorities that allow it to exploit new opportunities.[10]

A.   Metrics for measuring DARPA's performance

DARPA is faced with the dilemma of demonstrating success and yet remaining true to its unique mission. Technology and system needs aimed high, or at fundamental levels, will be pressured to show prospects of relevance and acceptance, often before scientists are comfortable with their knowledge. However, fostering less risky technologies and systems that meet known military needs with high prospects of success

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[10] Dr. Frank Fernandez, *Introduction to DARPA*. www.DARPA.mil

is contrary to DARPA's mission of creating technological options with "revolutionary" potential, and is a role already performed by the Military Departments.

DARPA is in the difficult situation of being measured by how much it disrupts the system – and yet at the same time its products are to be used by the organizations that it disrupts. While the ultimate "user" is the warfighter, the users of DARPA's inventions or innovations – as technologies and integrated systems concepts – are the developers of military weapon systems and related capabilities. These are the Military Service acquisition organizations. A DARPA-developed innovation on the one hand must "transition" to the Services (and to their contractors who actually produce the systems), but is generally developed to supercede technologies these organizations are themselves developing, or are substantially different from anything they are procuring and outside of their identified requirements. In assessing DARPA's performance, it is essential *not* to use the same measures as for traditional, incremental, requirements-driven R&D. Nor should the satisfaction of the individual Services in DARPA "transitions" be considered a measure. In particular, the number of "successful transitions" at any given time should not be considered a valid measure of performance.

If there is any appropriate measure for DARPA's performance, it should be: "how much difference has it made in the state of technological capabilities of the Nation's defense?" Earlier assessments of DARPA's impact indicate that, at certain times, the effects of its programs have been huge and of nearly incalculable value.[11] The effects of some of DARPA's investments in information processing on defense are known to be enormous. These encompass pervasive changes in artificial intelligence, high-performance computing, and robotics. Because of DARPA's sustained support for certain areas, building from initial science and rudimentary technologies into progressively more integrated subsystems and systems, to systems-of-systems, the measurement of "transition" is often meaningless.

The evidence is clear: DARPA has had tremendous impact on a broad range of technologies and military systems concepts that have helped place the U.S. in the absolutely dominant position in military capabilities. DARPA has also supported the technological revolution in information processing and networking that has transformed the U.S. and world economies. It would be an error to say that, without DARPA, none of this would have happened. However, it is reasonable to say that through DARPA's investments in fostering innovation, these technological opportunities occurred more rapidly, more broadly, and more to the advantage of the United States.

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[11] See Van Atta, et al, *DARPA Technical Accomplishments*, Volumes I, II, III, Alexandria, VA: Institute for Defense Analyses, 1990 and 1991; Defense Advanced Research Projects Agency, *Technology Transition*, U.S. Department of Defense, 1998, available from www.DARPA.mil.

In contrast to its *effectiveness* as a stimulator of technical ideas, it is possible to ask how *efficient* is DARPA in this role. If there is any question that vexes private industry, as well as government, it is how to evaluate the return on investment for any given expenditure in innovative research. Some firms have concluded that because the returns on basic innovations can not be fully captured by private firms, support for research is nearly impossible to justify in accounting terms.

There are two different questions to be dealt with in regards to DARPA's efficiency. The first is how much to invest overall, relative to desired overall impact. The second is how to manage individual projects and programs relative to internal performance metrics. The first "efficiency" measure presents difficulties for DARPA because it is not simply a venture firm looking for the highest return on its R&D. It is a problem-solving enterprise which, at times, is given truly daunting challenges that are in fact beyond what anyone knows how to do. DARPA's history in such areas as IR focal plane arrays shows that achieving some capabilities can prove inordinately difficult and costly – but that there are times when the potential gains are so high that further investment can be judged appropriate. When to stop research in an area, or when to cut back to a "back to the drawing board" low-level of effort, are very hard decisions – but decisions that DARPA management has had to make on several occasions. One problem DARPA faces, which private organizations do not, is that its large-scale investments bring with them a political constituency that is often able to lobby both internally in DoD and with the Congress to sustain funding, even when DARPA feels it should be cut back.

Another metric to assess DARPA and other organizations is their support for improvement and innovation in how it does business. In this regard, DARPA should be given high marks. DARPA has been an impressively flexible, adaptive organization that has invented or furthered very innovative ways of doing business. It was one of the first organizations to systematically adopt consortia and partnership mechanisms, as opposed to standard grant and contract approaches for R&D. It pioneered the use of the "Other Agreement" as a mechanism to engage firms in partnerships. DARPA initially embraced ACTDs as a means of supporting the transition of its proof-of-concept prototypes into military applications. The Agency showed remarkable flexibility and innovation from its earliest days; one example being the founding of is "Information Processing Techniques" project in 1960 on J. C.R. Licklider's seminal vision, *Toward Man-Machine Symbiosis*. It is this type of creativity and vision that has given DARPA a reputation as one of the most productive agencies in the U.S. government. Key to this reputation is the management and personnel that have established a culture of creativity and flexibility and a strong sense of purpose.[12]

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[12] DARPA has been reviewed in the Biennial Survey of Defense Agencies. The results were generally positive, as shown by the survey's conclusion: The findings show a very strong continuing need for the DARPA products and services evaluated. Customers' high ratings of satisfaction with effectiveness and

B. Management

As shown in Figure 3, DARPA has a flat internal management structure. Under the Director are a single Deputy and six Office Directors.[13] The larger of these offices have a Deputy Director. Below this level, DARPA's program offices are staffed by technical program managers who are generally given broad autonomy to develop and oversee their programs.
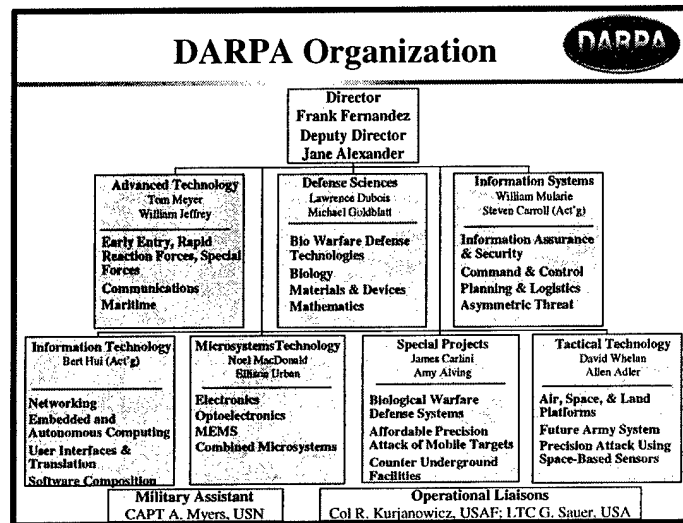
Figure 3. DARPA Organization

DARPA provides the following description of the focus of these offices:[14]

- The Advanced Technology Office explores high payoff programs in the areas of maritime, communications, and early entry/special forces operations. This is accomplished through development and transitioning of demonstrated systems for military users to respond to new and emerging threats.

- The Defense Science Office mission is to vigorously pursue the most promising discoveries and innovations in science and engineering to create paradigm shifts in defense capabilities. DSO emphasizes programs in medical

efficiency, show that DARPA is seen as a preferred supplier. Military Customers who influence funding of DARPA's business line are satisfied with the cost effectiveness of these DARPA products and services. DARPA shows high levels of responsiveness to customers, and the customers rate DARPA's coordination methods very highly. All but one of DARPA's 13 specific products and services receive moderate or high ratings. One area cited for improvement efforts (receiving low satisfaction rating) was "Technical Transition Strategy." Several customers are very pleased with the working relationships they have with DARPA; others provide specific suggestions for improving products and services. *1999 Biennial Review of Defense Agencies and DoD Field Activities,* Chapter E, Report of Findings for Defense Advanced Research Projects Agency, p. E-18.

[13] As discussed below, the Information Systems Office was recently eliminated.

[14] *DARPA Technical Offices,* DARPA website, www.DARPA.mil.

approaches to biological warfare defense, biology, materials, and advanced mathematics.

- The Information Systems Office mission focuses on revolutionizing national security and military operations through the power of information systems technology to know, to know more, to know faster, and be able to act flexibly.[15]

- The Information Technology Office focuses on inventing the networking, computing, and software technologies vital to ensuring DoD military superiority.

- The Microsystems Technology Office mission focuses on the heterogeneous microchip-scale integration of electronics, photonics, and microelectromechanical systems (MEMS). Their high risk/high payoff technology is aimed at solving the national-level problems of protection from biological, chemical, and information attack and to provide operational dominance for mobile distributed command and control, combined manned/unmanned warfare, and dynamic, adaptive military planning and execution.

- The Special Projects Office focuses on developing systems solutions, along with the required enabling technologies, to counter current and emerging threats. In the area of current challenges, SPO is focused on affordable, precision kill of movers, emitters, and concealed (including underground) targets. In the area of emerging threats, SPO focuses on active defenses against biological weapons, against proliferated, low-cost/low-technology air vehicles and missiles, and against GPS jamming. Supporting technologies include advanced sensors and radars, signal processing, and navigation and guidance systems.

- The Tactical Technology Office engages in high-risk/high-payoff advanced military research, emphasizing the "system" and "subsystem" approach to the development of aeronautic, space, and land systems as well as embedded processors and control systems.

Operational management is based on a program management approach following a set of criteria summarized in Figure 4.

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[15] This office was disbanded by DARPA Director Frank Fernandez shortly before his departure in January 2001.

DARPA Investment Criteria ⬤DARPA

- **We constantly ask our Technical Directors/Program Managers:**
  - What are you trying to accomplish?
  - How is it done now, and with what limitations?
  - What is truly new in your approach which will remove current limitations and improve performance? By how much?
  - If successful, what difference will it make?
  - What are the mid-term, final exams or full scale applications required to prove your hypothesis? When will they be done?
  - What is the DARPA "exit strategy"?
  - How much will it cost?

Figure 4. DARPA Program Management Criteria

A typical technical project might be structured as follows:[16] $10-40M over four years; a single DARPA Program Manager with direct control of the efforts and the funding; a SETA contractor or contractors to support the Program Manager in his or her primary roles of managing the efforts and representing the program with Congress, the Office of the Secretary of Defense, the Military Services and/or involved Unified Commander; an Agent (furnishing from a fraction of a person to several people) in a military R&D laboratory to provide technical and contracting support (paid from program funds to provide this support); and five to ten contractor organizations and two universities executing tasks focused on a specific aggregate goal.

Obviously, there are wide variations to this "typical" case. Some projects are under $1M and a few are in the hundreds of millions of dollars. However, the management paradigm is the same; the variation is in the amount and type of "hired" assistance. Even in larger programs, the emphasis is on small teams of the highest quality people. Regardless of size, a single DARPA Program Manager is in charge and must manage and represent the project internally and externally.

1. DARPA Internal Budget Procedures

DARPA is chartered with avoiding technological surprise and sponsoring promising revolutionary research and development that will enable the Services to maintain their technological superiority. To accomplish this wide-ranging mission, DARPA is provided approximately $2B per year and is given the necessary independence to allocate these resources to develop a sound technological program. As a first step in

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[16] DARPA website, www.DARPA.mil.

the process, DARPA management surveys the major challenges faced by DoD, and the opportunities available for their solution. A wide variety of information sources are tapped in this pursuit including, but not limited to, Defense Science Board study results, CINC recommendations, JASON studies, university research results, the Office of Science and Technology Policy reviews, and the Defense Planning Guidance. Collectively, this information assists the DARPA Director in establishing Agency top-level priorities (Focus Areas), helps to quantify in gross terms the percentage of DARPA topline that should be allocated to these areas, and provides a framework for evaluating individual program proposals. Currently, DARPA Focus Areas are National Security, Operational Dominance, and Core Technology Exploitation. Approximately 15 percent of DARPA topline is nominally allocated to National Security; 43 percent to Operational Dominance Programs; and 42 percent to Core Technology.

Focus Area allocations are guidelines only; DARPA resources are ultimately distributed on the basis of the quality of the programs proposed by DARPA program managers. Annual reviews are conducted in advance of POM preparation in order to identify, evaluate, prioritize, and fund promising new research programs. These program proposals are evaluated by DARPA management for their consistency with DARPA Focus Areas, the soundness of their program structure and content, and most critically, the degree to which the program concept represents a revolutionary versus an evolutionary change. DARPA's primary mission is to effect revolutionary change and, as a consequence, applications or extensions of existing technology are rarely if ever approved for DARPA funding. Each program manager is expected to articulate what the program is trying to accomplish, the current state of practice in the technology area and its limitations, the program's relationship and importance to DoD needs, program performance metrics, the "exit" or transition strategy, and finally the program's cost. Those programs meeting these rigorous standards are finally presented as part of the DoD's Planning, Programming and Budgeting System.

Program approval is not the end of the story. DARPA management conducts annual execution reviews of all programs to be sure that they are progressing satisfactorily and that they are addressing the highest priority/highest payoff technology. Programs that fail on either score are dropped and the funds are reallocated to higher priority existing or new programs during the next budget cycle.

2. Management Oversight

Initially DARPA reported to the Secretary and Deputy Secretary of Defense. It later came under the Director, Defense Research & Engineering, which then was renamed the Under Secretary of Defense (Research and Engineering). The current equivalent of this office is the Under Secretary of Defense (Acquisition, Technology and Logistics) (USD(AT&L)). More recently, DARPA reported to the Director for Defense Research

and Engineering (DDR&E), which is now a position under the USD(AT&L), and most recently it has reported to the Deputy Under Secretary for Science and Technology, who is under the DDR&E. In essence, as the scope of the job that was initially the DDR&E or USD(R&E) has increased to include much broader acquisition concerns, the reporting relationship of DARPA to OSD has fallen further down the organization.

C. Personnel and facilities management plans or initiatives

DARPA is an organization of just over 200 individuals. About 110 of these are technical program staff with responsibilities for developing and managing technical programs. The remaining personnel are involved in office management and operations including such functions as facilities, human resources, security, finance, and contracting. DARPA has no laboratory facilities. Maintaining high quality technical staff is a key priority for DARPA. One major concern is the ability to attract top-level military officers to provide military applications focus and insight. The decision to no longer consider a DARPA assignment as a "joint" assignment reduces the attractiveness of DARPA as a career assignment for an officer.

DARPA also seeks to attract talented technologists from the industry. DARPA has initiated an innovative approach, the Experimental Personnel Hiring Authority, as a means to bring in creative people with industrial backgrounds. DARPA was granted the experimental personnel hiring authority under section 1101 of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999. Under this authority, DARPA can directly hire up to 20 eminent scientists and engineers from outside government service for term appointments with DARPA of up to four years; these appointments may be extended to six years in specific cases. This authority significantly streamlines and accelerates the hiring process.

1. Management of Defense Technology Innovation—Assessment and Issues

The internal management of DARPA is not a significant management concern. The major concerns are with external guidance and with the missing resources and organizational capabilities to take DARPA-developed proof-of-concept prototype system capabilities and move them toward fruition. Regarding external guidance, oversight, and direction, DARPA has devolved into an essentially bottom-up organization that has gone out to the Services and the CINCs to identify problems to work on, as well as built programs around technological opportunities. What appears to be missing is a high-level process for developing and providing broad strategic focus and executive-level support for major, potentially change-state programmatic thrusts. The bottom-up perspective has a tradition in DARPA – most particularly for the identification and pursuit of potentially change-state or disruptive technologies. But there has been another tradition at DARPA: it is the organization that takes on the high-level assignments for bringing the Nation's technology capabilities to bear on problems that cannot be handled by the traditional

military technology development community. Space, missile defense, and nuclear test detection were the first of these. Later there was a set of thrusts – defined by DARPA in conjunction with and in response to the Office of the Secretary – aimed at overcoming the Soviet Union's numerical strength in arms.

With the collapse of the USSR, the U.S. recognized the need to redefine and transform America's Armed Forces – "the need to prepare now for an uncertain future."[17] There does not appear to be in place a process for developing an overall integrated technological approach to focus on a set of breakthrough technological capabilities that will achieve the Vision. The existing S&T process is oriented toward incremental improvements to meet today's requirements and cannot provide the underpinnings for this focus on fundamental change – changes in the definition of military operations themselves and fundamental changes in the way military operations are performed. In 1958, the Department of Defense, using DARPA as its agent, responded to an incipient threat from change-state technologies and ushered in an era of technology breakthroughs that fundamentally altered the military and commercial scene. In 1975, DARPA was called upon to address an unacceptable political-military situation – our adversary had achieved military strength that drastically limited our options to defend our Allies and ourselves. The results are being incorporated in the ongoing "Revolution in Military Affairs." Today, we face a changed state in geopolitics, and our leaders see a need to transform our forces to address it. While the bottom-up technology approach is a valid and vital aspect of DARPA's work, DARPA needs to be provided better focus, guidance, and direction regarding the key aspects of the future fundamental problems toward which its unique organizational capabilities should be devoted.

The means, modes, and mechanisms are not adequately developed for conceiving the revolutionary concepts, identifying the technological approaches for addressing them, and then for taking these technological approaches from the proof-of-concept prototype into the product development process that avails them to the warfighter in the joint arena. The linkages between the warfighting experimental concepts and the technology developers – the iterative, adaptive feedback processes for channeling both the operational and technological innovation – are not adequately developed or supported. In this regard, the current concerns about technology transition from DARPA into the application arena are misplaced. The true issue is the establishment of a truly iterative, interactive process of innovation and experimentation between DARPA and the warfighter, represented by the Chairman of the Joint Chiefs of Staff. There are two key missing elements in this process, the front-end of defining the foci for DARPA and the back-end regarding how DARPA's focused technology thrusts will be "inserted" into an iterative experimental product development process with the Joint community.

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[17] Major General Pete Osman, *Joint Vision 2020*, www.dtic.mil/jv2020/baseline.htm.

DARPA

There are concerns that the current reporting relationship for DARPA is now too low in the OSD organization to provide effective direction for DARPA, and that it places this oversight within an organization that has a different and narrower focus than DARPA. The Under Secretary (Science and Technology) has primary responsibility for overseeing the Defense Science and Technology program, which is driven by Service S&T programs. The focus of Service S&T is on known requirements, schedule-driven through highly formalized processes. The focus of this R&D is on reliable, sustainable gains in support of Service missions. This R&D tends to be risk-averse and focused on planned product improvement.

Having DARPA report to the DoD organization focused on this R&D is not in keeping with DARPA's role as the organization that pursues disruptive technologies and transformation-causing systems. In essence, the management focus and interests with regard to DARPA vice the Services' R&D are, and should be, separate. DARPA has fundamentally different goals, timelines, and substantive interests than do the Military Service R&D programs. The main reasons for oversight of the Service S&T programs by OSD are to achieve some degree of coherence and synergy, reduce unnecessary duplication, and determine if there are any major gaps in the coverage among the Service programs. DARPA programmatic interests are fundamentally different from these. In addition, the management oversight of DARPA through this S&T process is overly burdensome and cumbersome. The OSD organization providing the oversight is also engaged in its own programs, which compete with those of DARPA for resources, and also substantively in certain cases.

DARPA should receive guidance from and be overseen at higher level; in essence, by the DoD "Chief Technology Officer" (CTO) who has direct access to the Secretary of Defense. The potential broad scope and impact of DARPA programs implies the need for a higher level of view on what is needed to bring these into fruition, involving relationships with the CINCs and the Services that are above the S&T organizations. Within the Office of the Secretary of Defense, the CTO function is needed to address the lack of focus and attention on technology development and integration at high-levels of DoD. *Joint Vision 2020* presents a broad concept of an integrated force structure based on tightly linked, closely coupled "systems-of-systems," yet the technology development approach in DoD is essentially one of disparate "stove pipes" that impairs this type of integrated capability. This is especially true of information-oriented areas: networking, information assurance, and software. A key problem is "no one buys software," they buy hardware in which the software is embedded. Moreover, the Joint arena doesn't buy, the Services buy, so that technology capabilities that are intrinsically the glue that knits operational systems together do not get acquired at the level at which they are used.

Concerns have been expressed that a void appears to have grown between the Secretary of Defense and the technology community in DoD. This raises the question of DARPA's role as the "technical action officer" for the Secretary, and what role DARPA should play in conjunction with or in support of the DDR&E – but the need for clear, unencumbered (by Service programmatic interests) expertise on technology aspects of policy has not been addressed adequately in recent years.

One of the key issues involves decisions concerning the approach to be taken to provide strategic direction for technology development. Since the late 1950s, the Department has employed a variety of models. The current model is a mixture of past approaches, with emphasis on decentralized planning within Components. Some past technology breakthroughs, e.g., low observables, appear to have been due to the use of an alternative model in which senior DoD leadership had more involvement in defining core objectives for the technology program. *Are changes in top-level DoD management practices for technology development warranted?*

III. CANDIDATE QDR ISSUES

- *Are improved processes needed within DoD to support the appraisal and implementation of new concepts – particularly when they involve more than one DoD component or CINC?*

DARPA recently has played a major role in defining radically different platform concepts for all three Services – Arsenal Ship, UCAV, and FCS. Each of these can be considered a "disruptive technology" that could significantly alter operational capabilities and approaches. A key aspect of DARPA's mission is developing such step-level changes in operational concepts and rapidly developing prototype systems embodying these concepts. Yet, getting these concepts into application through the Services is a long and often difficult road. While the DARPA-FCS venture may provide some insight on making the process more cooperative and hopefully smoother, it raises questions regarding the focus of DARPA's systems concept developments. In particular, does DARPA's current focus on individual Service systems programs compromise its role as the organization that fosters and develops revolutionary concepts? Specifically, does this focus on Service-specific systems detract from DARPA's ability to develop intrinsically Joint, multi-Service, or multi-CINC concepts?

- *If DARPA provides a special place for promoting joint capabilities, what should be the customer environment for moving these developments forward into application?*

DARPA has been an important venue for developing "joint" capabilities. Often these have been implemented in relatively near-term projects (though drawing on earlier, sustained DARPA technology work). There appears to be an underlying issue of

developing an effective mechanism for developing and fielding "joint" capabilities. "Joint" implies capabilities that fall across, if not between, Service interests, and thus may fall to DARPA if individual Services are not giving them adequate attention. Many of these capabilities involve C3I assets that might be developed and fielded by OSD(C3I). But this raises the issue of whether an OSD organization is itself the proper acquisition organization for such programs. Perhaps JFCOM would be a better alternative, but this would require giving it broader acquisition authority.

- *Is a mechanism needed to fund the transition of DARPA prototype system efforts in order to overcome the inflexibility of the PPBS?*

There is a "two-year gap" in funding, even for programs of direct interest to the Services, demonstrated recently by the delay in UCAV acquisition. This indicates a need for some mechanism to bridge the gap. Yet just "parking" a project with lifeline support either at DARPA or elsewhere does not appear to be an effective answer.

- *Does the relationship between DARPA prototype efforts and the ACTD processes need to be reinvigorated?*

Transition of DARPA developments into applications via ACTDs appears to have reached "diminishing returns." Is there something missing in the system – especially resources – to develop DARPA-sponsored technology to the point that it can be more effectively "inserted" into ACTDs? The idea of a "technology transition fund" has been suggested to provide a funding mechanism to foster the technical maturity of such prototypes, thereby reducing some aspects of the risk in moving them into demonstration. Or is the ACTD concept itself passé, perhaps having been replaced by alternative paths?

- *Is a high-level strategic planning process needed for linking forward-looking national security concepts to emerging science and technology directions?*

The Defense Science Board recommended a strategic planning process be established in DARPA: is such a mechanism needed? Is the problem a DARPA problem, or is it a broader DoD problem that includes DARPA but reaches well beyond it? The Joint Vision concepts present ideas that transcend current technical capabilities, yet the relationship between such broad operational concepts, and technology developments to achieve them, is not well defined. The current DoD S&T planning process is oriented toward meeting defined military requirements and is not appropriate for shaping new directions in technology priorities or in defining future strategic concepts that derive from projected or emerging technology opportunities.

X. DEFENSE THREAT REDUCTION AGENCY

I. MISSION

A. Mission statement

The mission of the Defense Threat Reduction Agency (DTRA) is to reduce the threat to the United States and its allies from nuclear, biological, chemical (NBC) and other special weapons, and from conventional weapons, through the execution of

- technology security activities,
- cooperative threat reduction (CTR) programs,
- arms control treaty monitoring and on-site inspection,
- force protection,
- NBC defense, and
- counterproliferation (CP);

to support the U.S. nuclear deterrent; and to provide technical support on weapons of mass destruction (WMD) matters to the DoD Components.[1]

B. Origins and rationale

The establishment of DTRA was one of the principal actions ensuing from the November 1997 Defense Reform Initiative (DRI). A 1997 Defense Science Board summer study on DoD responses to transnational threats provided some of the rationale for creation of the Agency. The objective announced by the DRI was to establish a single DoD organization to carry out programs to address the proliferation of, and to counter the threats posed by, weapons of mass destruction. The Agency commenced operations on October 1, 1998. Upon establishment, it was designated a combat support agency (CSA).

DTRA brought together a number of previously separate organizations:

- Defense Special Weapons Agency[2]
- On-Site Inspection Agency
- Defense Technology Security Administration

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[1] DoDD 5105.62, September 30, 1998.

[2] DSWA traced its origins to the establishment of the Manhattan Engineering District (MED) in 1942. The Armed Forces Special Weapons Project (AFSWP) replaced MED in 1947. The Defense Atomic Support Agency (DASA) replaced AFSWP in 1959. DASA's successor, the Defense Nuclear Agency, was established in 1971. DSWA was created in 1995. OSIA was established in 1998. DTSA's charter was dated 1985.

- Chemical and Biological Defense Programs staff previously within the office of the Assistant to the Secretary of Defense (Nuclear and Chemical and Biological Defense Programs)
- Cooperative Threat Reduction staff previously within the office of the Assistant to the Secretary of Defense (Nuclear and Chemical and Biological Defense Programs).

While DTRA was established as a result of the DRI, all of the objectives originally specified in the DRI were not achieved, as outlined in Table 1.

C. Functions, products, customers, and resources

1. Functions

DTRA defines its program in terms of four mission-essential functions (MEF), which correspond to primary lines of business for the purpose of this appraisal:

- Combat Support
- Technology Development
- Threat Control
- Threat Reduction.

Combat Support includes direct support to the Chairman of the Joint Chiefs of Staff, the Joint Staff, the CINCs, and the Military Services to engage the threat and challenges posed to the United States, its armed forces, and allies. These activities support planning, safety, security, and reliability of the nuclear deterrent. This also involves providing WMD expertise across the spectrum of threats and capabilities. Combat support also involves nuclear stewardship programs, accident response exercises, understanding of nuclear weapon effects, and assessments of the vulnerabilities of U.S. military installations and locations worldwide.

Technology Development accomplishes, manages, and coordinates research and development (R&D) activities to enhance and enable WMD combat support, threat control, and threat reduction. DTRA operates nuclear weapon effects simulators and develops radiation-hardening technologies for microelectronics. This mission-essential function also evaluates systems for the characterization and defeat of WMD targets. It provides both offensive and defensive tools to the warfighter, as well as developing technologies for arms control and for DoD engagement and shaping activities. As a technology development agency, DTRA fosters innovative research for next generation technologies.

Threat Control includes inspection, escort, and monitoring to ensure compliance with international arms control treaties and agreements, and preparations for future treaties and agreements. This essential function is also responsible for maintaining U.S. military technology superiority by controlling exports of defense-related technologies and end items such as U.S. satellites launched by foreign boosters.

Table 1. Status of DRI Implementation for Threat Reduction and Treaty Compliance

1997 DRI Report Decisions	Status
SECDEF REFORM DECISION: Establish a Threat Reduction and Treaty Compliance Agency to carry out programs designed to reduce proliferation and counter threats posed by weapons of mass destruction. (p. 19)	Defense Threat Reduction Agency established. Elimination of "and Treaty Compliance" from the Agency's title appears to reflect post-DRI decisions that the Agency should be responsible for execution of treaty-related programs and development of arms control treaty verification technologies, but not responsible for treaty compliance, a policy-related mission.
Threat Reduction: Complex new challenges require organizations to adjust their institutional focus. Of the challenges facing the Department of Defense in the future, none is greater or more complex than the threat posed by weapons of mass destruction. To address these challenges, the Department is committing to establishment of a Threat Reduction and Treaty Compliance Agency charged with managing activities pertaining to (p. 19)	See above.
and Counterproliferation (p. 19)	Counterproliferation programs previously accomplished by DSWA transferred.
the Cooperative Threat Reduction Program, and (p. 19)	Execution responsibility for CTR transferred. CTR funding not added to DTRA TOA (Total Obligational Authority) until FY01.
The Partnership for Peace Program, and with (p. 19) monitoring compliance with arms control treaties. (p. 19)	Not transferred. This program went to DSCA. OSIA responsibilities and functions transferred to DTRA. As noted above, broader responsibilities for treaty compliance were not assigned to DTRA.
The new Agency will also be responsible for providing expertise on weapons of mass destruction (to include supporting related technical force protection requirements of the Chairman, JCS) (pp. 19-20)	Expertise from merged agencies and existing force protection program transferred.
nuclear weapons stockpile support, (p. 20)	Functions transferred.
and weapons of mass destruction research, operational support, and threat reduction. (p. 20)	Functions transferred.
This new Agency will be formed by consolidating three existing agencies: the On-Site Inspection Agency, (. 20)	Accomplished.
the Defense Special Weapons Agency, and (p .20)	Accomplished.
the Defense Technology Security Agency. (p. 20)	Accomplished with an important qualification. Agency technology security activities are under the supervision of both Director, DTRA and the Assistant Secretary (Strategy & Threat Reduction).
In addition, functions of the OSD staff currently associated with managing associated programs would also devolve to the new Agency. This would include a small program management staff from USD (Policy), (p. 20)	No staffs associated with Partnership for Peace transferred. Assistant Secretary (Strategy & Threat Reduction) supervises and directs activities of DTRA related to export controls.

1997 DRI Report Decisions (cont)	Status (cont)
and the Deputies for Threat Reduction, (p. 20)	Accomplished.
Nuclear Treaty Programs, and (p. 20)	Accomplished.
Counterproliferation from (p. 20)	Accomplished.
the Office of the Assistant to the Secretary of Defense (Nuclear and Chemical and Biological Defense Programs), which we intend to eliminate. (p. 20)	Position retained on DDR&E staff.
The DDR&E will assume responsibilities for the corporate-level policy functions currently assigned to the Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense Programs, (ATSD(NCB))... (p. 61)	Initially, USD(AT&L) assumed the ATSD(NCB) responsibilities. More recently, DDR&E has had these responsibilities.
...the separate Presidentially Appointed Senate-confirmed position of ATSD(NCB) will no longer be required. In its place, a Deputy DDR&E for Nuclear Matters will be established to provide support to the DDR&E for these matters. (p. 61)	Congress did not concur with the elimination of the ATSD(NCB) position. While not filled during the previous administration, the position continues to exist. DDR&E is the acting ATSD(NCB). Deputy for Nuclear Matters position established within DDR&E.

Source: First column, William S. Cohen, Secretary of Defense, *Defense Reform Initiative Report*, November 1997. Entries in the left hand column are quotations from the DRI Report.

Threat Reduction includes the U.S. policy of assisting nuclear states of the former Soviet Union with the dismantlement of weapons of mass destruction, and actions to reduce WMD proliferation. DTRA executes the Cooperative Threat Reduction program in accordance with the 1992 Former Soviet Union Threat Reduction Act (the Nunn-Lugar program). In addition to the destruction of former Soviet strategic systems, the program improves the safety and security of remaining WMD materials.

Figure 1 provides an overview of the funding for each of these major business lines, plus additional activities.

Reading the figure from bottom to top, it is obvious that funding varies significantly across the categories of activities presented:

- WMD Combat Support, the bottom-most entry, has one of the smallest fractions of the overall budget.
- Technology Development is a more significant account, over $400M/year.
- Threat Control is another relatively small account, on the scale of combat support.
- Threat Reduction (CTR), the fourth entry from the bottom, is a half-billion-dollar scale program.
- "Other DTRA" is a smaller account.
- Chemical-Biological Defense is a very large investment, over a billion dollars in some years.
- External funding is projected to be a small fraction of the overall DTRA program.

A important point here is that DTRA funding is considerably more complex than in other agencies (or the Services). This is addressed below in the discussion of DTRA resources.
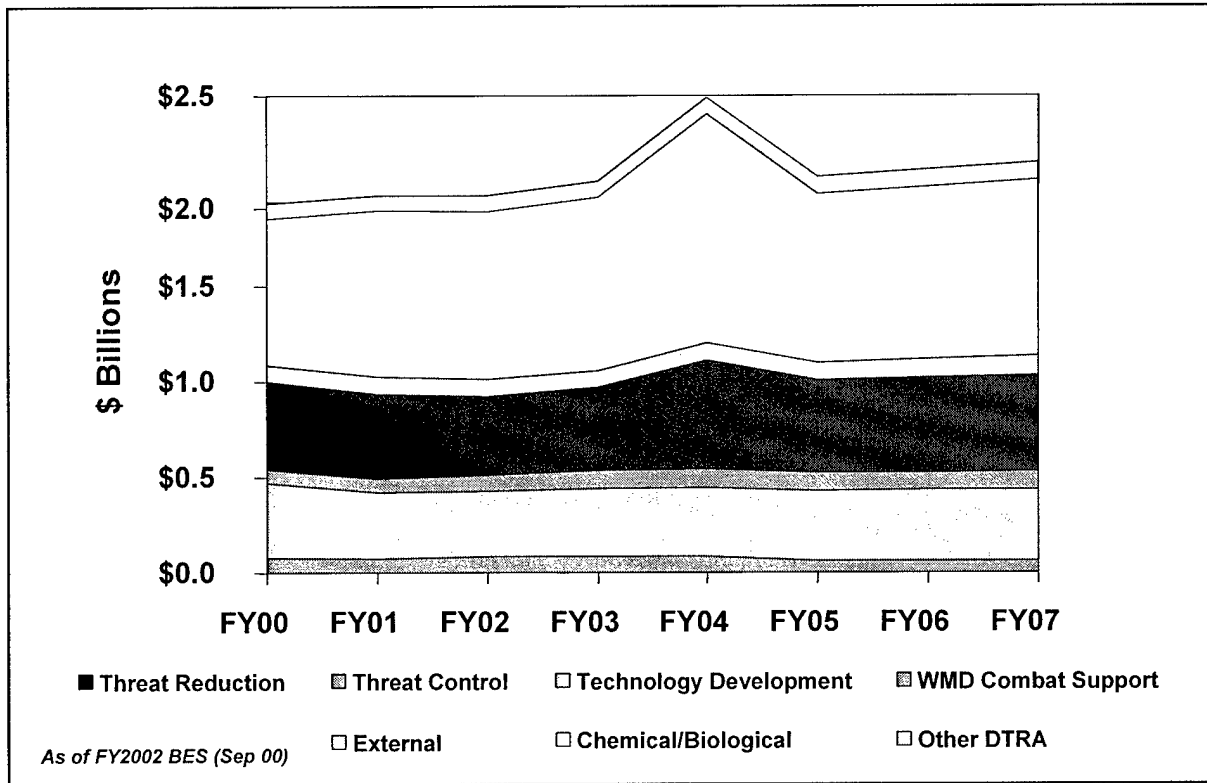
Figure 1. Breakout of DTRA Funding by Mission Essential Functions

2. Products

By its estimate, DTRA delivers over 800 products and services to more than 400 customers including the Office of the Secretary of Defense, the Joint Staff, the Combatant Commands, the Military Services, and other federal and state agencies. The descriptions of the four business lines presented above outline the products and services provided.

3. Customers

One of the OSD officials interviewed in the preparation of this report suggested that the only true customers for DTRA or any other Defense Agency are the Secretary of Defense, and the Secretary's staff acting as his or her agent. Using a more conventional definition, "customers" are those who purchase a commodity or service. DTRA has few customers in this sense. In the absence of a better term, "customer" is used here in a broader sense to reference the organizations that directly receive products or services. Illustrative direct customer relationships are outlined in Table 2.

Table 2. Examples of DTRA's Direct Relationships with Customers

Business Line	Products and Services	Direct Customers
Combat Support	Independent nuclear surety inspections	Chairman, Joint Chiefs of Staff
	Technical and field agent for force protection	Chairman, Joint Chiefs of Staff
	Direct support to operations	Combatant Commands
Technology Development	RDT&E projects	Service and defense agency organizations responsible for system acquisition.
	ACTDs, including post-ACTD products	CINC or other operational partners.
	Administration of DoD chemical and biological defense program	Deputy for Chemical and Biological Defense Programs, OSD
Threat Control	Technology security services	USD(Policy)
	Representation of USD(AT&L) on the National Disclosure Policy Committee	USD(AT&L)
	Implementation of inspection, escort, and monitoring provisions of arms control treaties and other agreements	USD(P)
Threat Reduction	Execution of cooperative threat reduction (CTR) programs	USD(P)

Source: DoD Directive 5105.62, September 30, 1998.

4. Resources

Personnel. The Agency operates with a resource base of 2,135 people (1,047 military and 1,088 civilian). Staff characteristics are presented in Figure 2.
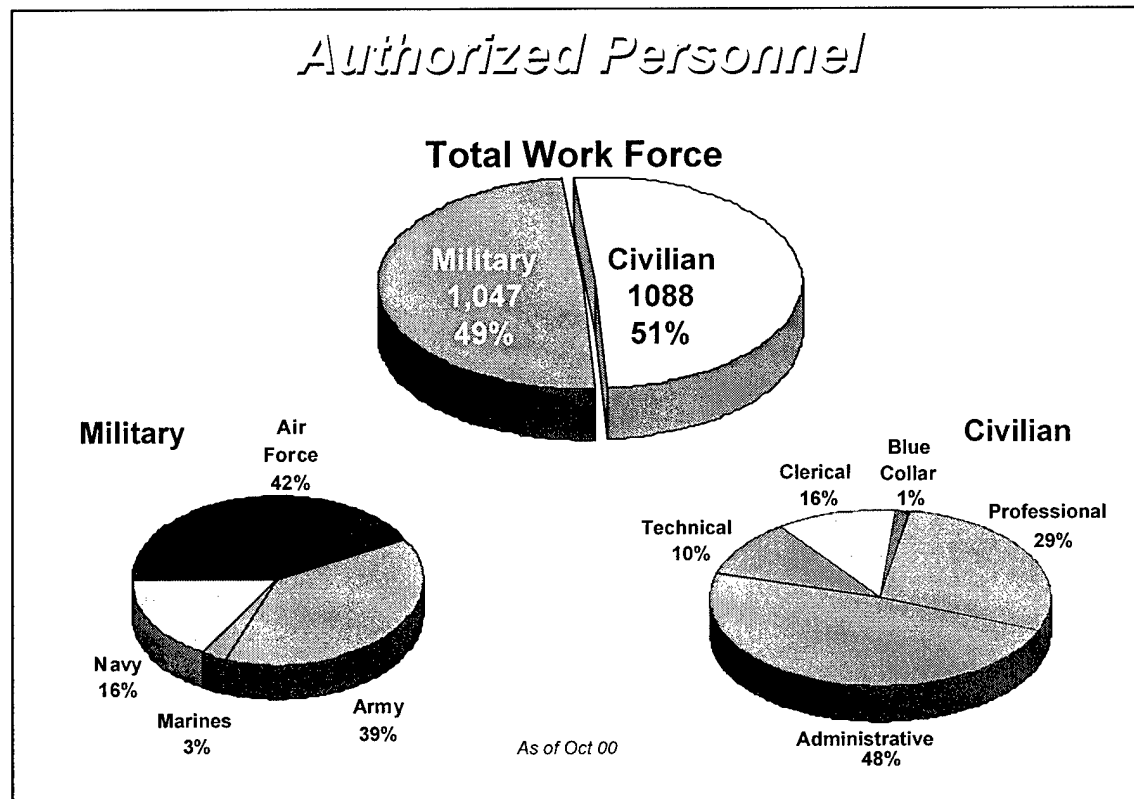
Source: DTRA

Figure 2. DTRA Staffing

Funding. DTRA funding is complex; a summary is provided in Figure 3. There are four primary components:

- External funding, for activities sponsored by other organizations.

- Chemical-Biological Defense (CBD). This, the largest component of DTRA funding, involves the resources that support the DoD CBD program. DTRA accomplishes administrative responsibilities for this program. However, the Agency does not direct this program; a DoD process, in which DTRA participates, manages these resources. Much of this funding goes to the Military Services.

- Cooperative Threat Reduction (CTR). DoD, State, and DOE are involved in CTR programs involving the new independent states formerly part of the Soviet Union. This is the funding for the DoD portion of CTR. Prior to FY01, this funding was not part of the DTRA TOA. Even as part of TOA, the Agency appears to have less flexibility for redirection (to achieve CTR or other objectives) than is the case for some other components of its core TOA-funded program.

DTRA

- Total Obligational Authority (TOA). This is the DTRA budget that is the direct analog to the budgets of other DoD Components. These are the funds that the Agency can prioritize and redirect across and within the Agency's mission areas. As is evident in Table 3, DTRA's TOA is a small fraction of total DTRA funding.
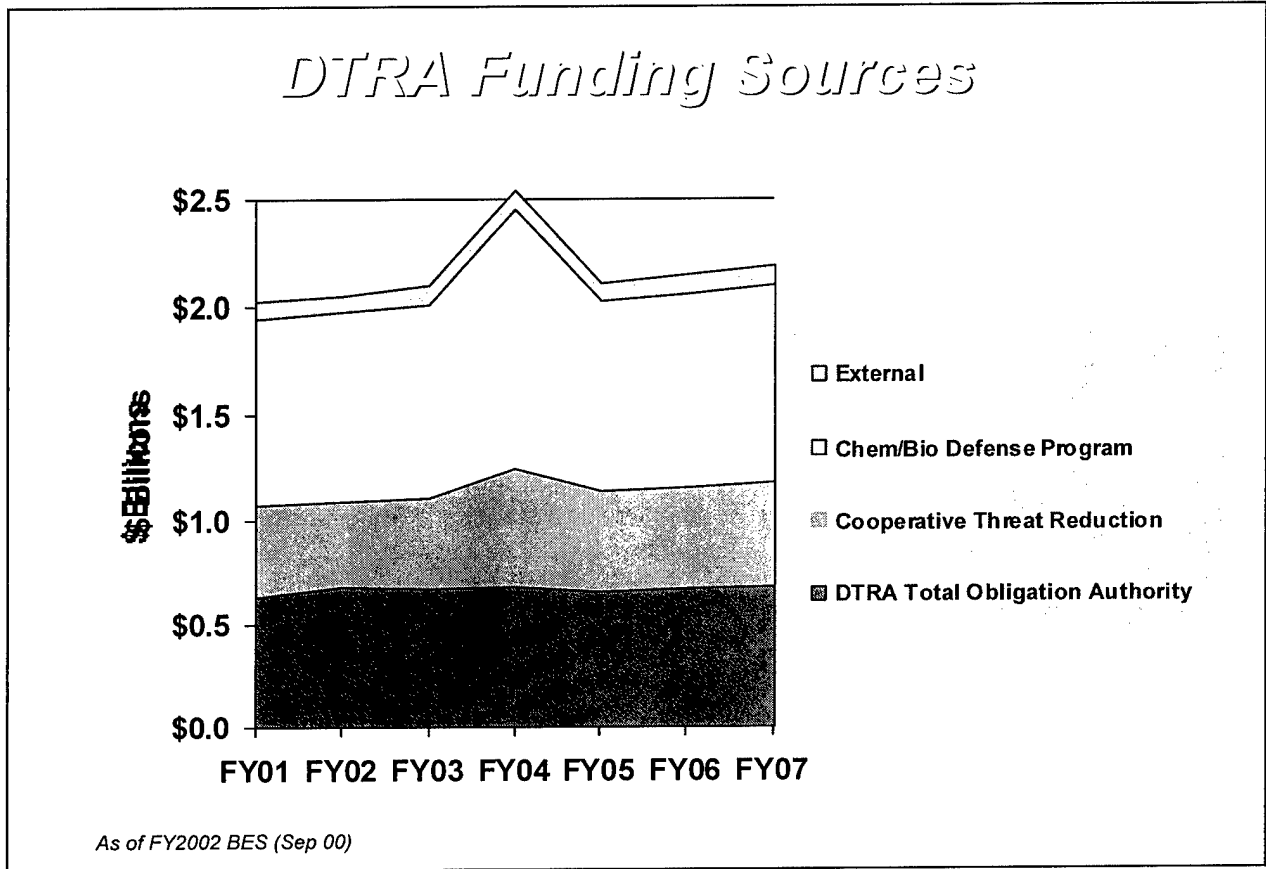
Figure 3. DTRA Funding

D. Schools of thought on the Agency mission and functions

There are many schools of thought concerning DTRA missions and functions. Major modalities are presented in the final section as candidate QDR issues for consideration.

E. Assessment

DTRA is unique. Much of "DTRA funding" isn't under its Director's control as a TOA resource. Implementation of the 1997 DRI was incomplete. The most important questions raised in interviews concerning DTRA involve basic issues concerning DoD missions that were not traditional Title 10 missions when DoD was established in the late 1940s. For example, how should DoD support homeland defense? These issues are summarized in Section IV's consideration of potential QDR issues.

Table 3 provides an overview of some of the information in this section, using a format that facilitates comparisons with others portions of this analysis.

Table 3. Mission and Functions

Mission Statement
The mission of the Defense Threat Reduction Agency is to reduce the threat to the United States and its allies from nuclear, biological, chemical and other special weapons, and from conventional weapons, through the execution of: technology security activities, cooperative threat reduction programs, arms control treaty monitoring and on-site inspection, force protection, NBC defense, and counterproliferation; to support the U.S. nuclear deterrent; and to provide technical support on weapons of mass destruction matters to the DoD Components.

Functions	Resources*	Pricing Mechanism	Rationale	Performer	Customers
Combat Support	ca. $10M/year	Predominantly appropriated funds.	DTRA established by DRI to provide integrated response to NBC threats.	Inherently military missions	Chairman, JCS and CINCs
Technology Development	ca. $450M/year			Technology to support military missions	Service organizations that develop and field systems; some products to CINCs.
Threat Control	ca. $10M/year			National policy implementation	Policy organizations
Threat Reduction	ca. $500M/year			National policy implementation	Policy organizations
	*Approximations based on Table 1.				

II. PERFORMANCE

A. Status of benchmarks and metrics

The primary external reviews of DTRA involving benchmarks and metrics are the 1999 Joint Staff (J-8) Combat Support Agency Review Team (CSART) assessment, which focused on combat support[3], and the 1999 biennial review of defense agencies and field activities[4]. Of the two, the CSART is the more valuable for purposes of the QDR because it provides a much more detailed appraisal of the functions examined, and also presents more specific recommendations, with milestones.

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[3] *Combat Support Agency Review Team Assessment of the Defense Threat Reduction Agency.* 13 July 1999 – 1 March 2000. For Official Use Only.

[4] *1999 Biennial Review of Defense Agencies and DoD Field Activities. Chapter P. Report of Findings for Defense Threat Reduction Agency.*

B. What the metrics and benchmarks show

1. Combat Support Agency Review Team (CSART)

The Joint Staff appraisal concluded that DTRA's performance was satisfactory. The CSART commended DTRA's performance in direct support of operations, with specific mention of Operations Allied Force and Desert Fox. The review concluded, however, that DTRA had shortcomings in its capability to support multiple simultaneous operations; the Agency is taking action to enhance these capabilities. One of the important conclusions of the CSART review was that department-level shortfalls exist in concept development and planning for counterproliferation. These were not Agency-specific issues, but they did impact DTRA's capability to provide support to counterproliferation operations.

2. Biennial review

This review employed a different set of business lines than employed in the current DTRA program (and presented previously)[5]. The broad pattern for the Agency's primary business lines is a situation in which the military "customers" who were surveyed regarded DTRA products and services as being important and do not see alternative sources. In comparative terms, DTRA's scores put it into the top half of the agencies and field activities evaluated.

C. Schools of thought on Agency performance

To a significant extent, discussions concerning performance evolved into discussions of how DoD should organize to accomplish missions in the areas of DTRA's program. This was also evident in the CSART report, where the key issues for counterproliferation involved department-level matters rather than specific aspects of the Agency's performance. These topics are captured in the discussion of candidate QDR issues (Section IV).

D. Assessment and issues

There are activity-specific issues, e.g., the Agency's inability to respond to multiple contingencies, and continued use of a paper-based process for review of exports. DTRA appears to be doing a reasonable job of responding to many of these activity-specific issues. For example:

- The Agency has formalized agreements with each of the Combatant Commanders in Chief defining respective roles and responsibilities. These agreements provide the framework to ensure DTRA's support activities are fully integrated into the operational missions of both the geographical and functional CINCs.

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[5] Business lines for the Biennial Review were: 1) exploiting the revolution in military affairs; 2) preparing for future Weapons of Mass Destruction Threats; 3) responding to the full spectrum of crises that threaten U.S. interests; and 4) shaping the international environment through control of weapons of mass destruction.

- As recommended by the Joint Staff review, DTRA has put in place full-time liaison officers at the headquarters of the European Command, Strategic Command, Pacific Command, Special Operations Command, Central Command, and Joint Forces Command. The Agency has established part-time coverage with the Transportation Command, Space Command, and Southern Command.

- For WMD consequence management, DTRA has entered into a formal support relationship with JFCOM for both domestic and overseas response.

- To support its war-fighting training mission, DTRA developed and published an FY01-07 Training Plan, the first defense agency to ever do so. The development of this plan revealed that DTRA's warfighting support tasks and exercises were well defined and fully integrated into the CINCs' combat support plans. However, it also revealed that DTRA's engagement and shaping tasks and operational exercises were less defined and needed to be better synchronized with CINC and CJCS engagement planning. To improve its peacetime support role, DTRA has taken the initiative to actively expand the scope of joint exercises to include DTRA's peacetime engagement and shaping activities. Integration of these activities into the CINCs' Theater Engagement Plans will allow DTRA to continue to strengthen its support of the CINCs' peacetime objectives.

- DTRA has taken action to improve its capability to support multiple simultaneous contingency responses.

- The Agency has supported efforts to modernize the Information Technology (IT) architecture that supports government-wide processing of export applications.

- In support of DTRA's mission to prepare for the future threat, the Agency has developed a strategy to integrate its research and development program more fully into DoD's broader Science and Technology (S&T) program. The objective of this effort will be to better assess the long-term threat and to develop the requisite plans and equipment to defeat and defend against emerging chemical and biological weapons threats. Key to DTRA's continued success in this area will be an attempt to integrate the diverse spectrum of expertise of local, state, and federal agencies into a coherent and coordinated response to WMD incidents, while remaining fully engaged in DoD's S&T planning process..

Tables 4 and 5 summarize performance information, using a format that facilitates comparisons across chapters in this report.

Table 4. Agency Metrics and Performance

Function	Metrics	Performance Assessments
Combat Support	CSART Review	CSART review gave good marks for outcomes; raised issues concerning staffing/efficiency
Technology Development	Aspects addressed in CSART review; all S&T managed using standard DUSD(S&T) supervised processes	CSART review identified need for DoD-level actions to better focus CP activities
Threat Control	Aspects addressed in CSART review	Staffing levels and joint duty assignments questioned during CSART review
Threat Reduction	Internal metrics	Implementation of national policy initiative; policy organizations are primary evaluators

Table 5. Improvement Initiatives

Function	Outsourcing	IT/Process Initiatives
Combat Support	No in-house labs – RDT&E accomplished by contractors and/or other DoD components	Numerous DTRA initiatives summarized in text
Technology Development		
Threat Control		
Threat Reduction	CSART recommended increased emphasis on competition of positions and conversion of positions from military to civilian	CSART review recommended use of activity based costing to reduce overhead staffs and make more positions available for combat support

III. MANAGEMENT

A. Agency management and governance structure

Figure 4 presents both the top-level organization chart for DTRA and some of the Agency's primary oversight and reporting relationships.

DTRA is under the authority, direction, and control of the Under Secretary of Defense for Acquisition, Technology & Logistics. The Director, Defense Research & Engineering assists USD(AT&L) in the day-to-day oversight of DTRA.

DTRA is responsible to the Chairman, Joint Chiefs of Staff for combat support and other operational activities, as well as for requirements associated with the joint planning process.

DTRA is responsible to the Under Secretary for Policy for implementation of the CTR program and for support to U.S. arms control treaties and delegations, CP-related support to OSD, and representation of DoD in bi- and multi-national processes.

As suggested by the dotted line drawn in Figure 4, DTRA is responsible to the Assistant Secretary of Defense (Strategy and Threat Reduction) for implementation of DoD technology

security policies. This Assistant Secretary supervises and directs the activities of DTRA related to export controls. The same person currently serves as both Director of the DTRA Technology Security Directorate and as Deputy Under Secretary of Defense (Technology Security Policy).

Organization and Relationships
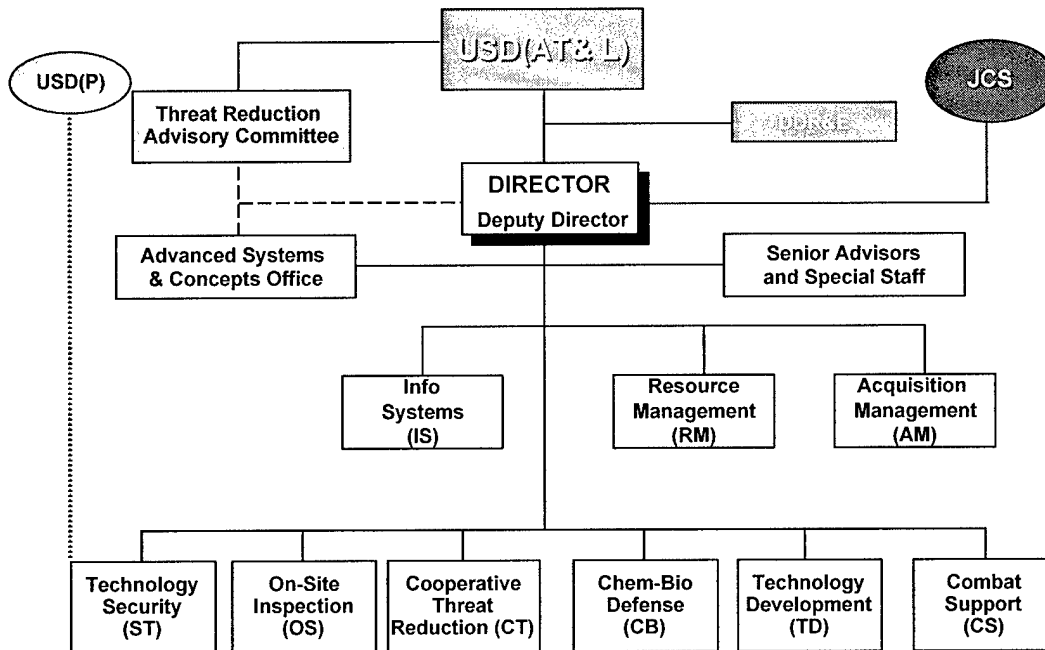
Source: DTRA.

Figure 4. DTRA Organization and Oversight

The Agency's primary mission directorates are the six elements listed at the bottom of Figure 4. Technology Security is what was previously DTSA. On-Site Inspection is the former OSIA plus treaty verification technology programs previously accomplished by DSWA. Cooperative Threat Reduction is the program formerly managed by an OSD staff. Chem-Bio Defense is the departmental CBD program for which DTRA has administrative responsibilities. Technology Development conducts RDT&E programs. Combat Support focuses on operational activities.

The Threat Reduction Advisory Committee (TRAC) is a chartered Federal Advisory Committee serving the Under Secretary of Defense (AT&L) and Deputy Secretary of Defense. This committee advises DoD leadership on emerging WMD threats, counters to such threats, and assesses the adequacy of DTRA and DoD programs in supporting national policy objectives. DTRA also has assigned senior advisors from the Departments of State (DOS), Energy (DOE), and Justice (DOJ/FBI).

B. Status of processes

1. Overview

DTRA has an internal planning process that is responsive to GPRA requirements. Standard department processes are used to develop the Agency's POM under the oversight of USD(AT&L), assisted by DDR&E. DTRA develops five-year business plans, annual financial plans, and annual acquisition plans.

The primary process issues are external to the Agency. These involve the designation of USD(AT&L) as the primary Principal Staff Assistant (PSA) for DTRA and unique oversight and management mechanisms.

2. USD(AT&L) as primary PSA

Prior to the establishment of DTRA, the ATSD(NCB)[6], was the PSA for

- DSWA (whose programs comprise most of the current DTRA technology development and combat support directorates), and

- OSIA (whose programs constitute the DTRA OS directorate).

Small ATSD(NCB) staffs served as de facto defense agencies for the CTR and CBD programs corresponding to the DTRA CT and CB directorates.

With the establishment of DTRA and the concurrent decision (by the past administration) not to fill the ATSD(NCB) position, the effect was to reduce the amount of PSA oversight provided for these activities, which make up a majority of the DTRA program and budget. An Under Secretary necessarily has many demands on her or his time. While Director, Defense Research and Engineering, assists in the day-to-day oversight of DTRA, DDR&E also has a very full agenda.

The decision to transfer the position of the Deputy for Nuclear Matters (formerly on the ATSD(NCB) staff) to DDR&E has not had a positive impact on oversight. This Deputy is not in the Agency's chain of command, is not authorized to task the Agency, and does not review the DTRA POM.[7]

A potential question for consideration in the QDR is: Should an Under Secretary, responsible for all aspects of acquisition, technology, and logistics, or a DDR&E with many responsibilities also be expected to serve as the PSA for DTRA? Would quality of oversight be improved by filling the ATSD(NCB) position and having this person serve as the PSA for DTRA?

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[6] Assistant to the Secretary of Defense (Nuclear and Chemical and Biological Defense Programs).

[7] The situation is very different for the counterpart DDR&E Deputy for Chemical and Biological Defense Programs, who has budget authority for the entire, coordinated DoD CBD program.

3. Unique oversight arrangements

Public Law 103-60 mandates integrated management of DoD Chemical and Biological Defense Programs. Figures 5 and 6 show current DoD management arrangements and the specific roles played by DTRA and its CB Directorate.

The FY00-01 program overview presents the following description of OSD and DTRA functions and relationships:

> "The Deputy Assistant to the Secretary of Defense for Chemical and Biological Defense Programs (DATSD (CBD)) remains the single office within OSD responsible for oversight of the DoD Chemical and Biological Defense Program (CBDP). DATSD(CBD) also retains approval authority for all planning, programming, and budgeting documents and is responsible for ensuring coordination between the medical programs and the non-medical CB defense efforts, and management oversight of the DoD CBDP in accordance with 50 USC 1522.

> As a result of the Defense Reform Initiative, OSD oversight functions for the CBDP were transferred to the Director, Defense Research & Engineering (DDR&E), while DoD execution management of the program was transferred to the Defense Threat Reduction Agency (DTRA). In FY99, the financial management responsibilities for the CBDP were transferred from the Ballistic Missile Defense Organization to DTRA, with DATSD(CBD) retaining overall Budget Authority for the program. DATSD(CBD) relies extensively on the personnel resources of the Chemical Biological Defense Directorate, DTRA for day-to-day action officer support on CB defense issues."

(Source: *FY00-01 Overview. Joint Service Chemical and Biological Defense Program, p. 7)*

As indicated, there are two sets of functions accomplished by DTRA. The first involves financial management, a set of activities previously accomplished by BMDO. The second set of functions, as articulated above and in the DTRA(CB) entry in Figure 6, involves support to the OSD manager of department-wide CBD activities and functions, such as responding to congressional inquiries and preparing annual reports, that is equivalent to what the OSD staff members transferred to the Agency previously did. From this perspective, the effect of the DRI was to move people from one organization to another, with no necessary impact on the quality, type, or efficiency of the functions performed. A potential question for the QDR is: Notwithstanding the DRI and other initiatives to reduce the size of OSD staffs, is it good practice to have OSD staff support functions accomplished by defense agency staff?
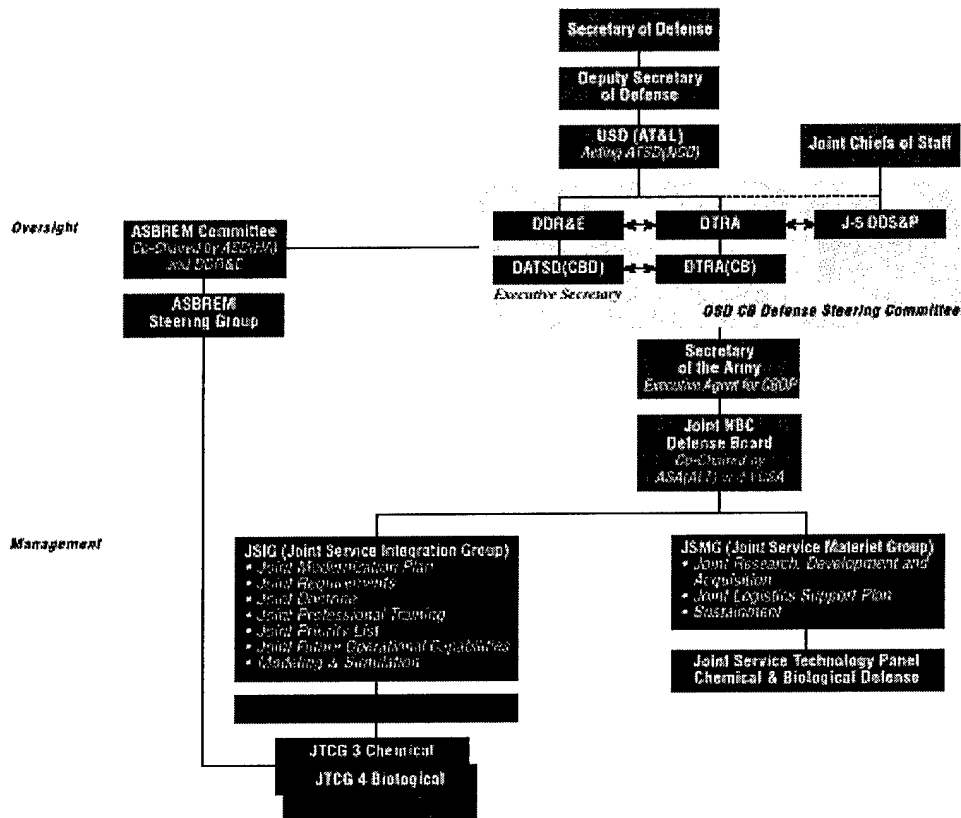
Source: *FY00-01 Overview. Joint Service Chemical and Biological Defense Program*

Figure 5. DoD Management Procedures for Chemical-Biological Defense Programs
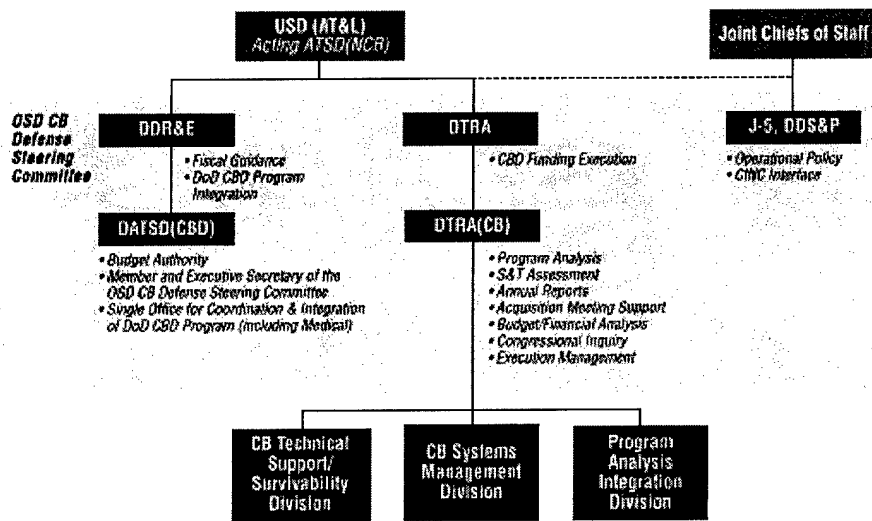
Source: *FY00-01 Overview. Joint Service Chemical and Biological Defense Program*

Figure 6. Functions of DTRA and Other CB Steering Committee Organizations

Another set of unique relationships involves technology security. Here the situation is that:

- ASD(S&TR) has authority to direct and supervise DTRA activities involving export controls.

- The same person serves on both the ASD(S&TR) staff as DUSD(Technology Security Policy) and as Director of DTRA's Technology Security Directorate.

- The staff of what had been DTSA works at the same site as they did when employed by DTSA, at some distance from other DTRA offices.

Potential questions for consideration in the QDR concerning the management of technology security functions are addressed in the final section.

C. Pricing practices and initiatives

This category has limited relevance for DTRA. Few of the Agency's relationships with other organizations involve fee for service.

D. DRI and related business practice initiatives

Chapter 4 in the CSART review of DTRA focused on business issues. The review identified a number of issues, and recommended that the Director, DTRA, take a number of actions, including:

- Undertake a review of Agency overhead functions and determine which, through the use of information technology and other methods, can be consolidated to free up manpower positions for application against combat support-related functions.

- Review DTRA Albuquerque business and management functions to eliminate redundancy with Headquarters.

- Review the consistency of DTRA decisions regarding the potential for outsourcing or privatization of DTRA functions. .

- Review the decision to designate 73 percent of the civilian authorization as inherently governmental or exempt from cost comparisons and incorporate results into next Commercial Activities Inventory.

- Maintain the organization at current manpower levels and operations and maintenance funding until completion of a functional and manpower review to form the most efficient organization. The CSART identified 138 NCO linguist positions that it proposed be considered for conversation to civilian positions. The CSART also identified issues involving the balance of manpower requirements across the department. For example, the DTRA Interagency Liaison Division, with an authorization of 59 personnel, has nearly twice the manpower authorization of the three Joint Staff divisions tasked with developing the military position on arms control issues and actually representing the military equity in the interagency process and in international negotiating forums.

- Conduct Activity-Based Costing studies of the Agency's business and management offices and those program offices that develop and produce the various CP tools, models, and simulations with the intent of identifying those processes where DTRA can achieve greater efficiencies, effectiveness, and cost savings.

- Conduct a military essentiality study of all authorized administrative and support positions currently filled with military personnel to determine which positions can be civilianized or outsourced. Currently there are 50 commissioned and warrant officers in such business operations billets.

- Conduct a reassessment of DTRA joint duty list positions. Section IV in the CSART report identifies a number of apparent inconsistencies in the designation of joint duty positions across the Agency.

For each of these matters, the CSART recommended that the action be assigned to Director, DTRA, and that status reviewed at the next CSART follow-up.

In its submission to this report, DTRA identified a number of efforts it has taken to capitalize on synergies, streamline operations, and improve management focus:

- Creation of Combat Support and Technology Development directorates to consolidate and enhance key efforts in critical mission-essential functions.

- Renewed focus on acquisition management and reform marked by the establishment of an Acquisition Support Team headed by a senior civilian procurement official and an Agency-level Acquisition Strategy Panel chaired by the Deputy Director.

- Recognition of the importance of information technology to the accomplishment of DTRA's mission, and as such, elevation of this organizational entity to directorate status and establishment of the Chief Information Officer position, all in compliance with the Clinger-Cohen Act.

- Consolidation of separate Manpower and Personnel, and Financial Management offices into an integrated Resource Management directorate.

- Realignment of resources, organizational structures, and processes supporting DTRA operations in Albuquerque, New Mexico to enhance management, efficiency and accountability.

- Development of five-year business plans, annual financial plans, and annual acquisition plans to enhance program, planning, and reviews and GPRA performance accountability.

E. Personnel and facilities management plans and initiatives

Within the National Capital Region (NCR), DTRA is located at four separate northern Virginia facilities: Washington Dulles International Airport, Alexandria, Fort Belvoir, and Arlington. Consolidation of NCR activities at a single site has been a stated objective since consideration was first given to the Agency's establishment: "...Consolidating these agencies and offices will help to break down barriers between their staffs, offering benefits of synergy among the varied talents that will be brought together." (Defense Reform Initiative, 1997, p.20)

In order to alleviate immediate force protection concerns, in FY00 and FY01 efforts were undertaken to relocate approximately 1,000 DTRA staff from the Dulles location into the existing McNamara Headquarters Complex (HQC) building and a temporary modular structure oat Ft. Belvoir, Virginia. Military construction funding is programmed for the construction of a permanent facility as an addition to the McNamara HQC building to support the consolidation of all DTRA NCR personnel by FY05. Additional funding has been programmed for outfitting the building and associated relocation costs.

Construction of a new facility with adequate force protection on Ft. Belvoir will afford a distinct mission advantage by bringing DTRA into proximity with officials involved in its departmental- and national-level programs. This physical consolidation will also have the effect of promoting synergy among organizational elements involved with the same partners; and facilitating coordination and integration of operational activities and technology development programs. Once consolidated, DTRA can evaluate the potential for further savings or efficiencies, which could then be reapplied towards meeting expanded operational and technical missions.

Several key initiatives have been undertaken by DTRA to enhance workforce planning and human resource management. These include a comprehensive review of all military positions to determine military essentiality; a comprehensive review of military officer positions to determine appropriate joint duty designations; development of a competitive sourcing plan; implementation of a strategic workforce development plan; and improved hiring practices. Closer linkage of manpower requirements with functional missions through DTRA's enhanced strategic planning process will further optimize the management of these critical assets.

F. Schools of thought on Agency management

The CSART review (addressed previously) is excellent. It provides the basis for much of this section of the report.

Table 6 summarizes some of the information on supervision and management using a format that facilitates comparisons across sections in this report.

Table 6. DTRA Supervision and Management

Management, Oversight, and Customer Interface	The key question involves PSA oversight. Specifically, it
PPBS Review	is good practice to have primary PSA responsibility for an agency with a complex program at very senior levels within OSD – USD(AT&L) supported by DDR&E?
Performance Contract and Requirements	The Agency is not required to prepare a performance contract
Strategic Plan and Performance Plan	DTRA has a good internal strategic planning system that is responsive to GPRA requirements

IV. CANDIDATE QDR ISSUES

A. Overview

Many candidate QDR issues involving DTRA have been identified. These involve four sets of issues:

(1) DoD- and in some cases national-level issues involving new[8] roles and missions. For example, how should the government best organize to accomplish cooperative threat reduction? DTRA-specific recommendations would result from reconsideration of such issues.

(2) DoD-level processes.

(3) DTRA-nominated issues.

(4) Agency-level practices.

B. DoD and national-level issues

1. Cooperative Threat Reduction

CTR programs are being accomplished in three departments – State, Energy, and Defense. *Should CTR programs be accomplished in a single department?* People posing this issue tended to suggest State as the organization in which efforts should be consolidated. Arguments advanced in favor of this option are that this is an important foreign policy program that merits being managed as a single program; that having a single organization in charge would facilitate program integration; and that the special conditions and considerations that might have necessitated DoD involvement at the outset of CTR no longer apply, given that activities have been under way for years. People proposing this option noted that it would be possible to assign some DoD personnel to either State or Energy to support CTR, as is done currently for other programs.

2. On-site inspections, escorts, and monitoring

When the INF treaty entered into force in 1988, only DoD was capable of making the prompt response needed for treaty implementation. However, these conditions no longer apply. *Should on-site inspection, escort, and monitoring activities be transferred to the State Department?* Arguments for doing this are that these missions are distractions from higher priority DoD tasks, and that these activities no longer require expertise or resources unique to DoD. It was also argued that the effectiveness of these activities might be improved if they were accomplished by State, possibly with some DoD support.

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[8] As elsewhere in this report, "new" in this context references a function that was not a traditional Service role or mission when DoD was established.

3. Verification technology

DTRA has an investment in development of verification technologies that was inherited from DSWA. *Should the verification technology mission be transferred to either an intelligence community component or the State Department?* Although supported in the past using S&T funding, some of this work has not involved science; e.g., such activities as developing a database to track treaty-related matters and supporting deployment of current state-of-the-art seismological and other sensors. It has been argued that the best U.S. government expertise for seismological sensor technology is in DOE and USGS.[9] Some who addressed this subject suggested that it may be a mistake to invest in technologies intended for use in verification of a Comprehensive Test Ban Treaty, given the Senate's decision not to give advice and consent to this treaty.

4. Technology security

Technology security staff work at the same location in Arlington that was occupied by DTSA (separate from the rest of DTRA) under OSD/Policy oversight, similar to that provided to DTSA. The same person is DUSD(Technology Security Policy) and Director of the DTRA Technology Security Directorate. Export control functions are under the supervision and direction of ASD(S&TR). Given these circumstances, it has been suggested that it might simplify management if DTSA were reestablished.

More important than decisions concerning organizational arrangements for DoD technology security staff are the answers to two questions:

- What is the U.S. government's policy concerning export controls, particularly controls for dual-use items?

- What priority does senior DoD management give to department-specific or -unique considerations involving export controls?

Given answers to these questions, the issue for QDR might be: *What arrangements for technology security activities are optimal for implementation of national policy guidance?* The Export Administration Act of 1979, which provided the fundamental legal basis for export controls impacting dual-use items and technologies, expired in 1994. Until recently, in the absence of legislation, the President kept the Export Administration Regulations in force by the declaration of an economic emergency under the National Emergency Act and the International National Economic Powers Act. This is not a complete solution. Penalties allowed under these measures are far less significant than had been provided under the pre-1994 law.[10] The current situation is that late in 2000, Congress reauthorized the Export Administration Act until August

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[9] U.S. Coast and Geological Survey.

[10] Issues here involve more than diminished penalties for violations. A recent Florida district court decision impacts the confidentiality of license applications and enforcement actions. An overview of issues is provided in Ian. F. Fergusson, *The Export Administration Act: Controversy and Prospects.* Congressional Research Service. Updated January 4, 2001.

20, 2001. Congress and the administration may make fundamental changes to policy which impact how DoD accomplishes its portion of the technology security mission.

Given new policy guidance, options might include:

- Transfer of the mission to State and/or Commerce.

- Maintaining separate DoD, State, and Commerce organizations, but having these physically proximate to facilitate processing of cases and to make it easier for citizens and firms to interact with technology security staffs.

- Reestablishment of DTSA as an organization that reports to OSD/Policy. This would reverse a DRI decision made by the previous administration.

- The current arrangement.

- Assigning management authority for DoD technology security matters to Director, DTRA equivalent to his authority for other DTRA TOA programs.

5. Nuclear operations

The CSART review recommended that DTRA teams that provide operational support to the Unified Combatant Commands should be integrated with the USSTRATCOM Theater Planning Response Cells to create a single deployable team providing a full range of targeting and CP support to the geographic commands.

This provides a context for reconsideration of one of the issues addressed at DTRA establishment: *Are DTRA nuclear operations missions better accomplished by USSTRATCOM?* If there is merit in merging the direct support teams, why not have a CINC, rather than an agency, involved in operations?

6. Nuclear S&T

A number of people interviewed expressed concern with the funding, visibility, and long-term viability of the nuclear weapons effects science and technology program accomplished by DTRA. The current situation is that DTRA is the only DoD Component with a significant nuclear S&T program. Funding has been considerably reduced and concerns have been expressed concerning the long-term viability of the research base, predominantly located in contractor organizations, that performs this work. A decade ago there was a defense agency with a nuclear mission. This provided a focal point within DoD for nuclear matters. Over time, the organizational visibility of the technical nuclear mission has declined, with this mission being assigned to a directorate within an agency, an agency division, and, currently, a branch within DTRA's Technology Directorate.

What is the most appropriate approach for managing and resourcing DoD nuclear S&T missions? Options suggested in interviews included: 1) establishing a nuclear mission directorate within DTRA to provide these activities with a minimum level of department-level visibility; 2) the preceding suggestion, plus addition of nuclear mission-related combat support functions; 3) assigning the personnel and resources to USSTRATCOM (an option considered

during DTRA establishment); 4) integration of DoD nuclear S&T with the programs accomplished by the recently established National Nuclear Security Administration; 5) establishing an organization (either as a defense agency or as an element of USSTRATCOM) that would be responsible for all of the technical activities addressed in the DoD *Nuclear Mission Management Plan.*

7. Chemical-biological defense and WMD homeland defense

Are DoD operations that provide direct support for chemical and biological defense and consequence management best accomplished within a single organization (or fewer organizations)? One of the issues is that many organizations throughout DoD and elsewhere within the government have developed or advertised WMD response capabilities, particularly capabilities for homeland defense.[11] In the context of the congressionally-mandated single, integrated CBD program, is there merit in having a single organization (possibly DTRA) designated as the provider of direct technical support for CBD, both in support of the CINCs and in support of domestic authorities?

8. Counterproliferation

How should DoD counterproliferation activities and programs be managed? This was an issue identified in the CSART review of DTRA. There has been progress, e.g., work on a draft Capstone Requirements Document for Counterproliferation. However, there appear to be multiple points of view within the department. Some regard counterproliferation as something that needs to be integrated into standard mission planning and other activities and programs; others regard counterproliferation as something that requires explicit management. DTRA and other DoD components will not be able to optimize their management of CP programs absent department-level decisions.

C. DoD-level processes

1. ATSD(NCB)

Should the position of ATSD(NCB) be filled to provide a Principal Staff Assistant responsible for DTRA below the level of DDR&E and USD(AT&L)? The basic argument here is that it is unrealistic to expect an Under Secretary or a Director, Defense Research and Engineering to provide the needed oversight and direction for a program of the complexity of DTRA's.

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[11] A current overview is provided in General Accounting Office, *Combating Terrorism. Federal Response Teams Provide Varied Capabilities; Opportunities Remain to Improve Coordination.* November, 2000. GAO-01-14.

2. Unique to DTRA management practices

Should DTRA be managed using standard DoD practices? This would eliminate some of the unique management situations that currently exist:

- Director, DTRA would be given responsibility for technology security equivalent to that he or she has for other Agency programs, or the function would be given to another organization.
- DTRA's role in Chemical-Biological Defense would be revised so that the Agency has the same roles and functions as other DoD components, or is given responsibility for the program.

3. Agency support to OSD

Should personnel performing OSD staff support functions be on OSD staffs? There are two issues here. The first, identified by DTRA, is that it is tasked to provide personnel to serve on OSD staffs. The second issue, discussed previously, involves situations such as the CBD program in which DTRA personnel (in positions that were in OSD prior to the DRI) are performing functions that appear to be equivalent to OSD staff functions.

In neither case is the quality of DTRA support at issue. The problem in both situations is that the department appears to have adopted a complex solution when a simple fix would suffice – if OSD staff support is needed, provide the needed personnel on the OSD staff. This would eliminate coordination burdens inherent in current arrangements. This would also be inconsistent with DRI's objectives of reducing OSD staffs.

D. DTRA-nominated issues

DTRA and other Agencies were invited to nominate their candidate issues for consideration in the QDR:

1. Chemical and biological defense organization and management

The Threat Reduction Advisory Committee (TRAC) and the Combat Support Agency Review Team (CSART) identified process, organizational, and management inefficiencies within the current Chemical-Biological Defense program (CBD). This finding recognizes that responsibility is spread across too many different DoD organizations. In its integrating role, DTRA has experienced the inherent tension between the Services' traditional defensive equipment "provider" role and the regional CINCs' challenge to meet the evolving chemical and biological consequence management mission. Consistent with its DoD mission directive, DTRA is uniquely positioned to provide oversight, management, and execution of the research, development, testing, and evaluation efforts of the chemical and biological defense program while the Services continue to manage the related materiel acquisition activities.

2. Development of an effective biological defense program

The TRAC has identified biological weapons as the principal threat facing the United States. To meet the *enormous* threat from biological weapons, all relevant DoD organizations, including DTRA, are working with other appropriate federal, state, and local organizations to develop and implement an effective biological weapons defense program for both our forces and our population. DTRA and DARPA will execute a joint systems study of the Defense Science Board biological defense recommendations, creating the basis for a potential aggressive homeland biological defense program.

3. Expand Cooperative Threat Reduction (CTR)

Continued opportunities for further reductions in strategic offensive arms in Russia and the other FSU states may be lessening. DoD must decide whether or not to commit fully to a comprehensive chemical weapons destruction program; and whether to initiate a similar biological weapons destruction program. Also to be considered: the destruction of dual-capable (nuclear and conventional weapons capable) aircraft, attack submarines, missiles and other advanced *conventional* weapons delivery systems. In addition, current United States law that limits the CTR program (and funds) to selected FSU states would need to be amended to allow for expansion of the program to such locations as the Korean peninsula. Congressional concerns and resistance to CTR program expansion and funding for Russia and other FSU states focuses on the need for more cost sharing by U.S. allies and participating states; and the need for more Russian cooperation. Additional concerns: U.S. CTR funds for dismantlement, destruction, and upgrading laboratory research facilities actually frees Russian funds for their own military modernization, and may also increase their weapons research, development, and production capabilities. The DoD leadership must decide how to pursue this issue with Congress, Russia, other FSU states, and allies.

4. DoD homeland defense and consequence management strategy

To maximize preparation for the quick and effective response to a WMD incident, DoD must decide upon a Homeland Defense and Consequence Management (HD/CM) policy; develop strategy, organizational roles and missions; foster new relationships, programs, and priorities; and assign implementation tasks. The Assistant to the Secretary of Defense for Civil Support (ATSD-CS), the Consequence Management Program Integration Office (COMPIO), the Joint Forces Command's Joint Task Force–Civil Support (JTF-CS), and DTRA all play vital roles. The Defense Threat Reduction Agency currently provides limited civil and military support to National Command Authorities and the CINCs for consequence management. Last year's Top Officials (TOPOFF) exercise recognized that DTRA could play a growing role in domestic consequence management. The development of a national and Defense Department homeland defense and consequence management policy and operational strategy should acknowledge the unique capabilities that DTRA provides, as well as enhancing future capabilities.

5. DoD WMD threat reduction and combat support

DTRA was formed not as an economy measure; it was formed to address WMD threat reduction issues for the department. In the case of DTRA, the sum of the organization was to become greater than the sum of its merged parts. Synergy and growth were essential and expected; however, the sum of funding has not changed. Enhanced mission performance is constrained by serious resource limitations. As a result, the combat support role that DTRA provides the CINCs and the Joint Staff has not been fully realized or adequately resourced. Enhanced resources are required for DoD to successfully implement its weapons of mass destruction responsibilities under the National Security Strategy and the National Military Strategy. Forces and resources in DTRA must match the strategic requirements to be able support multiple contingencies/WMD events.

6. DTRA personnel and funding support to OSD

The DRI intended to clarify that the Office of the Secretary of Defense would set policy and direction; while the Defense Agencies and the Services would implement programs. The Defense Threat Reduction Agency, as an implementing agency, continues to provide day-to-day personnel and funding support to a myriad of Pentagon organizations, including the Nuclear Matters Division, Nuclear Weapons Council, OUSD(AT&L) treaty managers, DDR&E, OUSD(Policy), and ATSD(NM). DTRA also provides advisory and assistance services contract support to the DUSD(S&T), S&TS, and ATSD(CB). This broad-ranging support arrangement warrants reconsideration. OSD offices should be required to properly plan, program, and budget for their respective requirements.

XI. DEFENSE SECURITY COOPERATION AGENCY

I. MISSION

DSCA's mission is to provide timely and effective direction, supervision, and oversight of security cooperation programs in support of U.S. national security and foreign policy objectives. In so doing, DSCA seeks, through its established security cooperation and other activities, to enhance U.S. influence in all regions of the globe, to ensure continued U.S. access to foreign bases and facilities vital to carrying out our national security strategy, and to promote military interoperability with allies, partners, and friends.

A. Mission, responsibilities, and legal authorities

"DSCA is established as an agency of the DoD pursuant to authorities in Title 10, USC, and DoDD 5105.65 dated 31 October 2000. The security assistance programs it administers are founded on two legal authorities: The Arms Export Control Act (AECA), (22 U.S.C. 2751 et seq.) and the Foreign Assistance Act of 1961 as amended (FAA) (22 U.S.C. 2151 et seq.)."

DSCA's established security cooperation activities include:

- Security assistance and foreign military sales
- Humanitarian assistance and de-mining
- Other related programs, e.g. Warsaw Initiative.[1]

Responsibilities for the agency include:

- Coordinates the formulation of Security Assistance (SA) Programs
- Administers and Supervises SA programs
- Develops and promulgates Security Assistance Procedures and Policies
- Makes determinations concerning funds allocation
- Manages the Security Assistance Lease Program
- Conducts FMS sales with foreign countries
- Provides policy direction and execution oversight for DoD direct participation in international air and trade shows

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[1] DSCA Transition Background Paper on DSCA Mission, 19 December 2000.

- Manages U.S. participation in international weapon system competitions when there is more than one U.S. offering to the foreign nation for consideration

- Manages Credit Financing programs

- Manages the drawdown of defense articles and services under the FAA

- Manages the Excess Defense Articles (EDA) program.

- Administers humanitarian assistance programs under 10 USC 2561

- Manages funding for humanitarian de-mining and approves humanitarian and civic assistance projects under 10 U.S.C. 401

- Administers international disaster relief activities IAW 10 U.S.C. 404,. and the Overseas Humanitarian Disaster and Civil Assistance Appropriation

- Serves as approval authority for Humanitarian Civic Assistance projects under 10 U.S.C. 401

- International Military Education and Training (IMET) programs in the US and OCONUS pursuant to Chapter 5 of the Foreign Assistance Act (FAA)

- Oversees support to peacekeeping activities pursuant to the FAA and United Nations Participation Act (UNPA).[2]

In 1969, the Office of the Deputy Assistant Secretary (ISA), Military Assistance and Sales (MA&S) Directorate was established by combining the Office of the Director Military Assistance and International Logistics Negotiations. In 1971, the MA&S organization was renamed Defense Security Assistance Agency (DSAA) and designated as a DoD agency (DOD Directive 5105.38). In 1998, as a result of the Defense Reform Initiative (DRI), DSAA was re-designated as the Defense Security Cooperation Agency.

B. Organization, manpower, and resources

DSCA end-strength data are displayed in Table 1.

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[2] DSCA Transition Background Paper on Legal Authorities, 18 December 2000.

Table 1. DSCA Personnel Trends - FY75 - FY03

	FY75	FY80	FY85	FY90	FY95	FY96	FY97	FY98	FY99	FY00	FY01
Civ	76	77	106	120	92	104	110	268	274	275	292
Mil	16	20	29	27	24	25	25	40	41	41	48
Total	92	97	135	147	116	129	135	308	315	316	340

Notes:

1991	Forced reductions – OSD-wide cuts (142-SA to 118-SA (-24-SA))
1997	Functional transfer – DFAS to DSCA (+6-SA)
1998	Functional transfer – DSADC (+117-SA) & DISAM (+50-SA) to DSCA
1999	DRI transfer – Human. Asst./De-mining & PfP (+14-DoD[3]) from OUSD(P) to DSCA
2000	Transfer - Other DoD Accounts (+3 DoD) to DSCA
2000	Transfer of Defense Institute of International Legal Studies (DIILS) (+17-DoD to DSCA) approved for FY01
2001	Transfer of DoD Security Course (+2-DoD) to DSCA (DISAM)
2001	Current Authorized End-Strength: 340. For official manpower reporting purposes, the previous three items are counted beginning in FY 2001 in Table 1. Of the 292 civilians authorized, 264 are funded from the FMS surcharge and 28 are funded from appropriated (DoD O&M) funds. Of the latter 28, 9 positions at DIILS are O&M reimbursable billets paid by IMET funds.

C. Organization

DSCA includes the following elements: DSCA HQ, located in Arlington, VA; the Defense Institute of Security Assistance Management (DISAM), located at Wright-Patterson AFB, OH; the Defense Security Assistance Development Center (DSADC), located in Mechanicsburg, PA; the Defense Institute of International Legal Studies (DIILS), located in Newport, RI; and the Defense Finance and Accounting Service Liaison Office (DSCA-DLO), located in Denver, CO.

The Director of DSCA is a three-star active duty military officer. The Deputy Director is an SES career DoD civilian employee. The Director reports to the Undersecretary of Defense for Policy (USD(P)) through the Assistant Secretary of Defense for International Security Affairs (ASD/ISA), who is designated as the Principal Staff Assistant (PSA) for the Agency.

DSCA HQ (162 billets) comprises the Front Office, two Regional Directorates, the Policy, Plans and Programs Directorate, and the Offices of the Comptroller, Information Technology, Humanitarian Assistance and De-mining, Legislative and Public Affairs, Strategic Planning and Reinvention Team, and the Office of the General

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[3] DoD – Billets associated with DoD (versus the Department of State) programs (civilians funded from O&M funds).

Counsel. In addition to managing its four direct-reporting activities (DSADC (102 billets), DISAM (52 billets), DIILS (17 billets), DSCA-DLO (6 billets)), DSCA HQ provides policy guidance, oversight, and funding for Security Assistance activities in other Defense Agencies, the Military Departments, Unified Commands, and Security Assistance Organizations (SAOs) in foreign countries.

D. Program resources

FY01 resources for programs managed by DSCA are shown in Table 2. Program funds come from either the Defense Appropriations Bill (DoD)(Function 050 Defense) or the Foreign Operations Appropriation (FOA)(Function 150 Int'l Affairs). Prior to FY99, DSCA had no resources from DoD appropriations. The Defense Reform Initiative transferred funding and program management responsibilities for the Humanitarian Assistance and De-mining and Warsaw Initiative programs from OUSD(P) to DSCA. These and other small programs transferred in later years brought DSCA's total DoD funding to about $113M in FY01. This figure pales in comparison with $3.7B in FOA program funding, and DSCA oversight responsibility for over $12B in FMS sales.[4]

E. Administrative resources

Resources for administering Security Assistance and DoD programs are of two types: First, appropriated funds (Administrative funds from the Foreign Operations Appropriations (FOA)) – Function 150 (International Affairs); O&M funds for managing DoD programs and non-appropriated (FMS Administrative) funds. Second, the Administrative Surcharge applied on FMS cases (currently 2.5 percent). Funds collected from this surcharge are deposited in the FMS Administrative Trust Fund, from which funds are obligated each year, subject to a Congressionally mandated ceiling. Administrative funds are expended at the corporate level (DSCA Hq, DISAM, DIILS, DSADC, DFAS-DLO) and throughout the Security Assistance community residing in the Military Departments, other Defense Agencies (including DFAS, DCMA, DISA, DLA, NSA, and NIMA), Unified Commands (EUCOM, PACOM, CENTCOM, and SOUTHCOM), and in SAOs located in 76 countries. Corporate level administrative resources in FY01 are shown in Table 3; total SA-system administrative funding is shown in Table 4.

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[4] FY00 data.

Table 2. DSCA Program Funding (FY01 Budget)

Appropriation	Program	Total ($M)
Foreign Operations (150)	Foreign Military Fund (FMF) Grants & Loans	3644
Foreign Operations (150)	IMET	58
Total 150 Program Funds		*3702*
DoD – O&M (OHDACA)(050)	Human. Asst. & De-mining	56
DoD – O&M(050)	Warsaw Initiative/PfP	37
DoD – O&M(050)	Canadian Environ Cln	11
DoD – O&M(050)	African Ctr for Strat. Studies	6
DoD – O&M(050)	Int'l Programs Security Rqmts Course	0.30
Procurement		0.65
RDT&E		1.91
Total DoD Program Funds		*113*
Total DSCA Program Funds		3815

Table 3. DSCA Corporate Administrative Funding (FY01 Budget)

Appropriation	Program	Total ($M)
Non-Appropriated	FMS Administrative Funds	57[5]
Foreign Operations (150)	FMF Administrative Funds	3
DoD – O&M (050)	DoD Administrative Funds	2
Total Administrative Funds		62

Table 4. SA-Wide Administrative Funding (FY01 Budget)

Appropriation	Program	Total ($M)
Non-Appropriated[6]	FMS Administrative Funds	340[7]
Foreign Operations (150)	Foreign Military Fund (FMF) Administrative Funds	33
DoD – O&M (050)	DoD Administrative Funds	2

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[5] Includes general FMS community support for information technology and activity-based budgeting and costing.

[6] Source: FMS Administrative Trust Fund – Derived from 2.5 percent FMS Administrative Surcharge.

[7] FY01 Congressional Ceiling on Spending from FMS Administrative Trust Fund.

Total Administrative Funds		375

DSCA allocates administrative funds to the various elements of the SA community on an annual basis. As part of Five-Year Plans from FY 1995 – FY 2001, which reduced funded FMS work years by 26 percent (-1,448), the Military Departments were provided five-year budget targets with instructions to manage their work force within those constraints. Maximum flexibility was given to the Military Departments to manage the drawdown at the same time budget reporting requirements were reduced.

F.   Program resource trends

Historical data for Foreign Military Fund (FMF) Grant funding are shown in Figure 1. As can be seen, grants to two nations, Israel and Egypt, have accounted for the bulk of this type of funding over the past decade. This phenomenon can be traced to the Camp David Accords achieved during the Carter Administration.
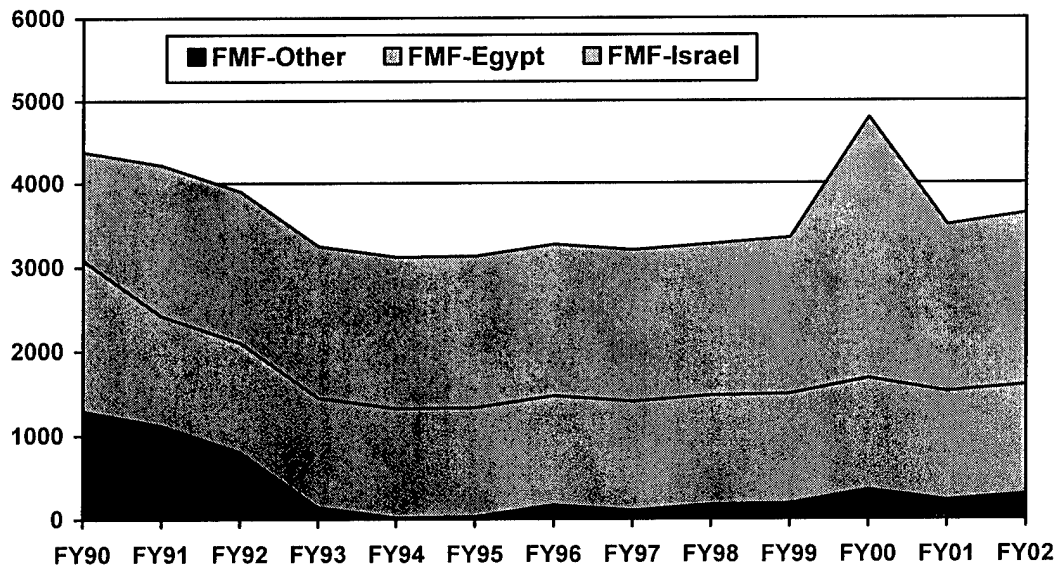
Figure 1. Foreign Military Fund (FMF) Grant Funds ($M) (FY90-FY02)

The spike in funding in FY00 is due to a $1.350B funding increase that year associated with the Wye River Agreements. After removing the allocated amounts, there is less than $225M in discretionary funding for Foreign Military Fund grants to be distributed among all other eligible nations. While this amount is higher than in FY94 and FY95, when discretionary funding almost vanished, it is still viewed by many of those interviewed during the course of this study as too low when compared to both needs and opportunities for strengthening U.S. relationships in key countries and regions of the world. For this reason, we recommend that the QDR examine theses opportunities

and that DoD work with the Department of State and Congress to increase discretionary funding for this program in future years.

Figure 2 presents resource trends for International Military Education and Training (IMET) and DoD program funds (Humanitarian Assistance and De-mining, Warsaw Initiative/Partnership for Peace, and Canadian Environmental Cleanup constitute the majority of these funds). As can be seen in the figure, IMET funding has been increased since FY94 ($22M) to $55M in FY01. Several persons interviewed felt that IMET funding should be increased further, allowing expanded engagement with foreign military establishments.
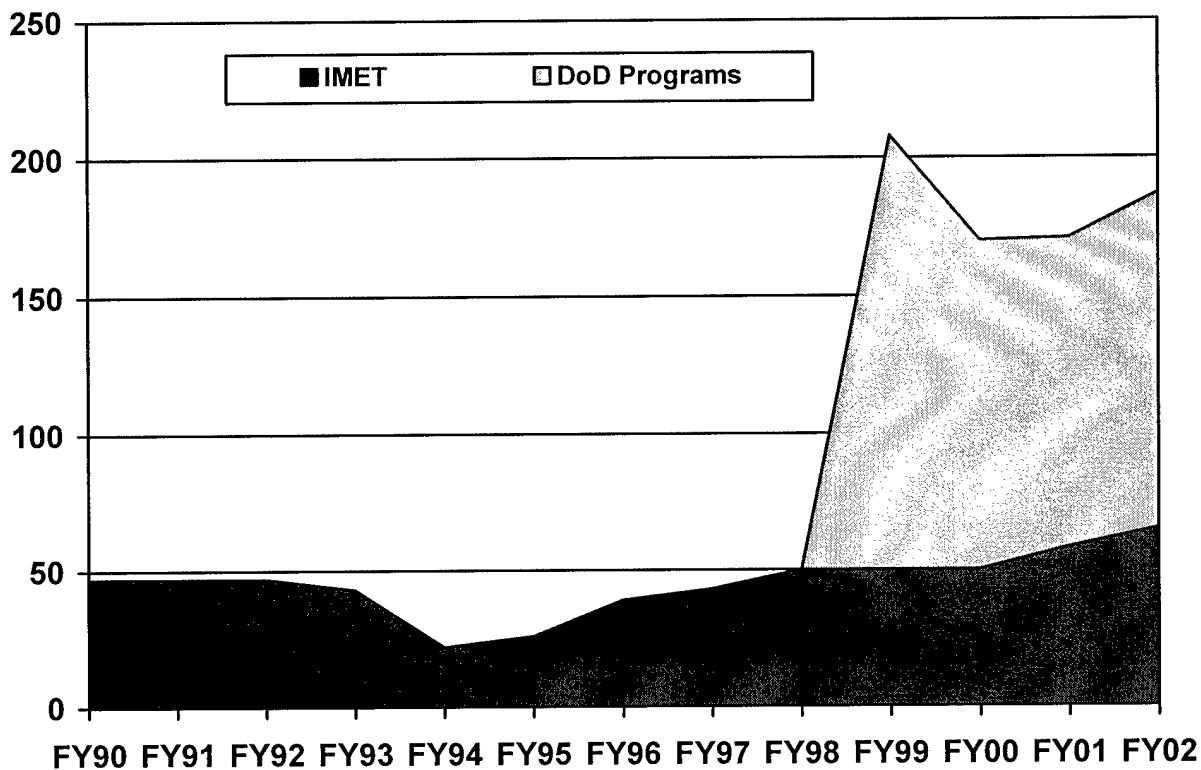
Figure 2. IMET and DoD Program Funds ($M) (FY90-FY02)

While IMET is a relatively small program compared with FMS sales and FMF, it is viewed by many having the greatest payoff per dollar expended of all U.S. Security Assistance programs. We recommend that QDR examine ways to expand this program and that DoD work with the Department of State and Congress to obtain appropriate increases in future IMET funding levels.

Regarding DoD programs, it has been only a few years since DSCA assumed responsibility for such programs. While DSCA management of these efforts appears to be

going well, we did not investigate this matter in detail for this study due to time and resource limitations. These programs appear to align well with other DSCA activities, and the DRI actions to move the management of them to DSCA are in accord with the general principle that OSD personnel should be developers and implementers of policy rather than program managers.

G. Administrative resource trends

Figure 3 Shows trends in SA-wide and DSCA Corporate Administrative funding. These resource levels are determined by the annual congressional ceiling on expenditures from the FMS Administrative Trust Fund, and by appropriated amounts in the FMF and O&M budgets.
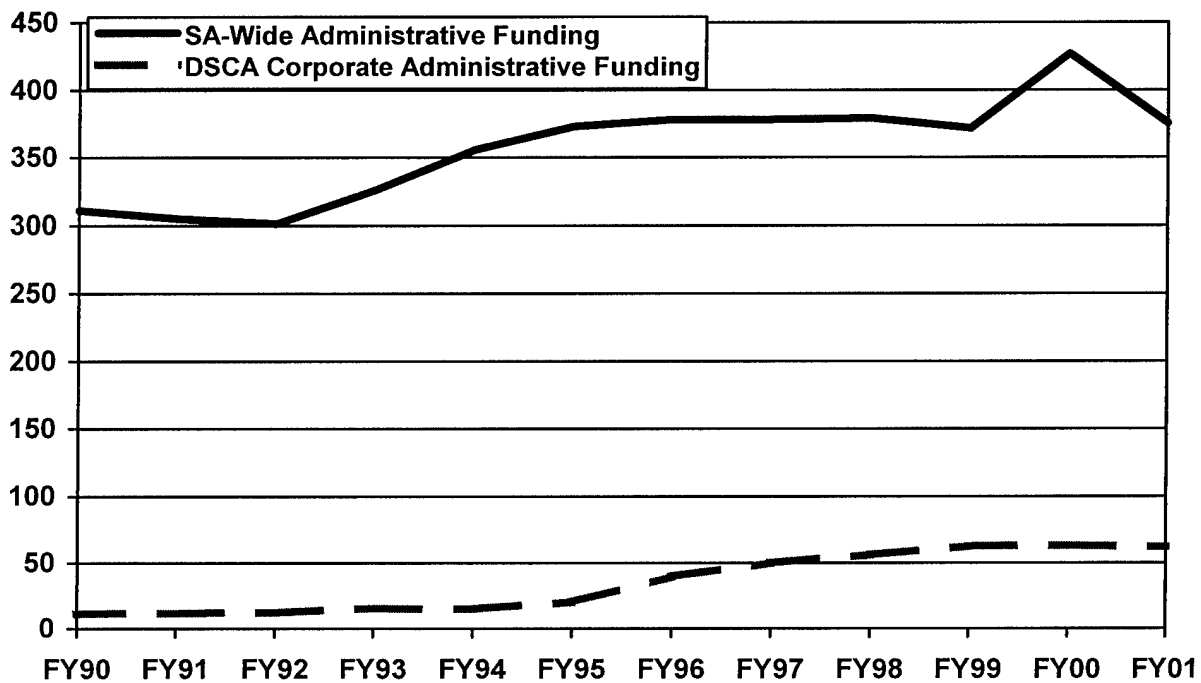
Figure 3. Trends in Administrative Funding (FY91-FY01)

The increase in total funding from FY91 through FY94 reflects the phased transition to the Defense Working Capital Fund ((DWCF) where customers obtain financial and accounting services on a reimbursable basis. From FY94 to FY95, the increase reflects a shift of approximately $16M that occurred when the OSD Comptroller reclassified the Defense Working Capital Fund manpower to Air Force O&M appropriation. This shifted some Air Force costs from being paid by FMS cases to the FMS Administrative budget. In FY00, an additional $52M was expended from the Trust Fund for reimbursement of Military Personnel salaries due to a congressional

requirement. Increases in Corporate Administrative funding reflect transfers of functions and personnel to DSCA from other organizations as noted below. In June 1999, sufficient funds were present in the Trust Fund to allow reduction of the three percent FMS Administrative Surcharge to 2.5 percent

H. DoD Security Assistance (SA) community

DSCA constitutes the corporate level of a pyramid of organizations that either support or implement Security Assistance programs. At each level, civilian and military personnel manage various aspects of the program. Civilian billets are funded from Security Assistance administrative funds. These total in FY01: $375M. Of this total, $340M is paid by the 2.5 percent FMS Administrative Surcharge. The distribution of effort among the various organizations comprising the Security Assistance community is shown in Figure 4.

4,614 WORK YEARS   FY 00

HEADQUARTERS (162)	DSCA HQ (162)
DSCA ACTIVITIES (171)	DISAM (52) DSADC (102) DIILS (17)
FIELD AGENCIES (479)	DFAS (479)
IMPLEMENTERS (3,082)	ARMY (1,018) DUSA-IA USASAC / NAVY (557) NIPO/NAVICP / USAF (1,483) SAF/IA/ AFSAC / OTHERS (24) (NSA, NIMA, DLA, DISA, DCMA, AIT)
UNIFIED COMMANDS (88)	EUCOM (26) CENTCOM (24) PACOM (16) SOUTHCOM (22)
SAO'S (632)	632 SAO PERSONNEL IN 76 COUNTRIES

(Current as of Feb 13, 2001)

Figure 4: The Security Assistance Community[8]

As shown in the figure, in FY00, 4,614 work-years were expended on SA administrative activities. DSCA headquarters accounts for 162 work-years, about 3.5 percent of the total. The bulk of the work effort goes on in the Military Departments'

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[8] Source of Chart: DSCA.

amplementing activities, which receive annual funding allocations from DSCA to support this work. DFAS also received funding to support 479 work-years of effort related to financial and accounting support for SA programs. DFAS is preparing to conduct an A-76 study to determine the cost-effectiveness of outsourcing this activity to the private sector.

Security Assistance Organizations (SAOs) in foreign countries constitute another key element of the SA Community. Often located in U.S. embassies, these organizations provide in-country interfaces with foreign customers and facilitate the flow of information between the customer and the CONUS-based SA and DoD acquisition, logistics, and educational establishments that are executing the FMS cases and the IMET Program. Offices in the Unified Commands manage the SAOs in their AORs.

In addition to the FMS Administrative Surcharge (2.5 percent), the customer may be billed for additional costs. These charges cover additional services, such as technical assistance or program management, not included in the base fee. The work years funded by these additional charges bring the total number of funded work-years from 4,614 to 10,012 in FY00.[9] Virtually all of these additional work-years are being expended in the Military Departments. Charges for these functions are included in separate lines in each FMS case.

Contract Administrative Services (provided by DCMA and DCAA) are also supported by the base FMS Administrative Surcharge. Over 700 work-years of effort were expended in FY00 for CAS.[10] Taken together, program management lines, technical assistance lines, and CAS charges can result in substantial additional costs to the customer beyond the amounts paid by the U.S. government directly to U.S. contractors to procure items or services for the customer.

However, should the foreign customer decide to purchase these items or services via a Direct Commercial Contract instead of via the FMS system, the customer would have to procure program management, contract administration, technical assistance, and other necessary services from the U.S. government, from private contractors, or by using the services of his own government employees for these functions. Thus, it cannot be maintained *a priori* that FMS is always the more expensive way to acquire U.S. defense articles and/or services. Each case would need to be analyzed individually to determine the most cost-effective approach from the standpoint of the foreign customer.

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[9] Source: DSCA Chart provided to IDA by Ms. Beverly Rexrode, Office of DSCA Comptroller.

[10] Source: Interviews with DSCA personnel.

I. Business trends and future viability of the administrative trust fund

Figure 5 presents historical FMS sales data for the past 21 years and projected sales for FY01 and FY02 ($12.8B and $11.1B respectively).
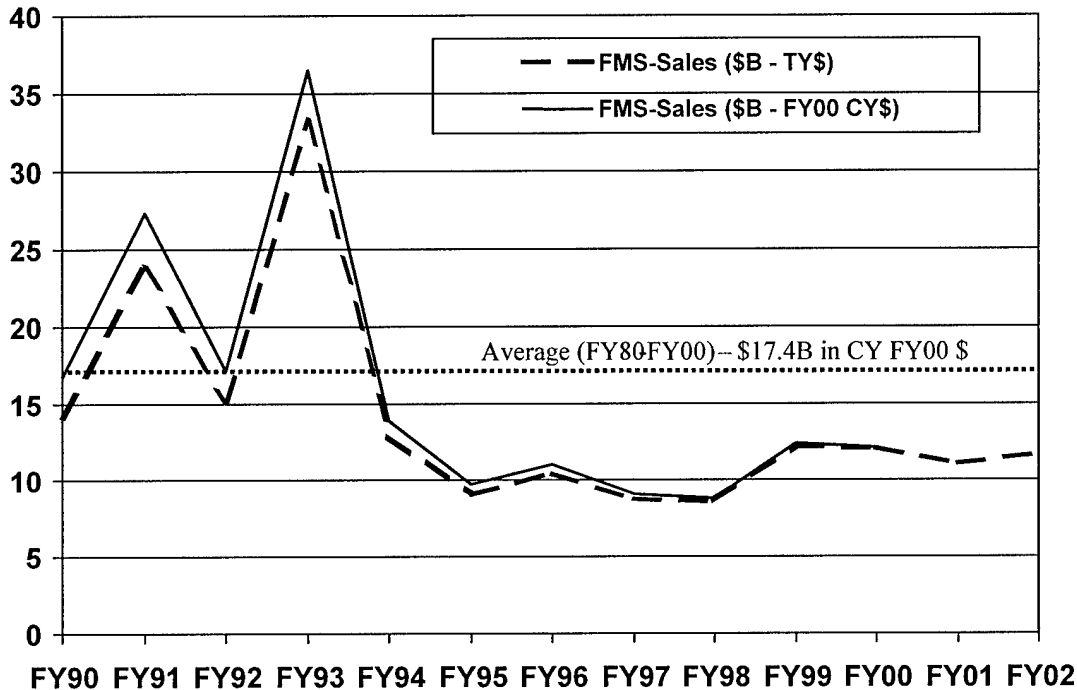
Figure 5. New FMS Sales (Constant 2000 Dollars) (FY80-FY00)[11]

After peaking at a high of $33.2B ($36.5B in constant FY00 dollars) in 1993 due to the aftermath of Operation Desert Storm and the consummation of several large deals with Saudi Arabia and Taiwan in that year, FMS sales declined sharply and steadily through 1998, bottoming out at a level of around $8.6B ($8.8B CFY00$) in that year. In constant FY00 dollars, this was the lowest level of new FMS sales agreements seen in the past two decades. Since FY98, sales have risen to a bit over $12B per year (in 1999 and 2000). DSCA forecasts that sales will hit around $12.8B in 2001, and continue at $11.1B and $11.8B respectively in the following two years.[12]

During the past 21 years (FY80 through FY00), cumulative adjusted sales have totaled $261B ($365B CFY00$). This equates to an average of $12.4B ($17.4 CFY00$)

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[11] Source of Data: DSCA Chart on Foreign Military Sales, 2/15/01.

[12] Source: DSCA Briefing Chart on Budget Outlook, 20 November 2000.

per year. Thus, on a constant dollar basis, FMS sales are now forecast to continue at a level about 34 percent below the historical average over the past two decades.

The amount of FMS Administrative Surcharge (2.5 percent) funds that are deposited into the FMS Administrative Trust Fund each year is not linearly related to FMS sales volume (a portion of the total surcharge due is collected at case acceptance, with the balance paid out during case execution, which may extend for several years afterwards.) DSCA utilizes analytical tools to forecast revenues from this surcharge given the current portfolio of cases, the status of each current case, and anticipated new future sales. Although the relationship between income from these surcharges and the dollar volume of new LOAs signed each year is complex, it is clear that a steadily declining sales base over an extended period would pose a significant challenge to the solvency of the Administrative Trust Fund, absent commensurate reductions in SA workforce and other expenditures.

Anticipating this problem, DSCA took steps to reduce SA personnel in the implementing agencies from FY96 through FY00. During the period, SA-funded civilian work-years declined by about 27 percent. Military work-years also declined, but only by 11 percent (except for FY00, these work-years were not reimbursed from the Trust Fund). Figure 6 illustrates these trends. DSCA feels that there is a now a sufficient balance in the fund ($476M) to ensure solvency for at least the next seven years, barring a major unforeseen downturn in sales.[13]

J.   Customers

The DSCA Strategic Plan uses the term "stakeholder" to refer to those entities or organizations with a major interest in what the agency does. The first, and by implication, most important stakeholder is listed as the U.S. government and its agencies. This follows from the assertion that DSCA exists "to support the needs of U.S. National Security and foreign policy objectives and to promote stable security relationships with friends and allies."[14] The plan also identifies three other stakeholders: External Customers (allies, friendly foreign nations,), Industry, and DSCA employees.

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13   Remarks made by Lt.Gen. Walters during a meeting with the IDA study team, 24 January 2001.

14   Defense Security Cooperation Agency 1998-2003 Strategic Plan, p. 6, available at the DSCA web site: http://www.dsca.osd.mil/stratplan/dscalite.htm.
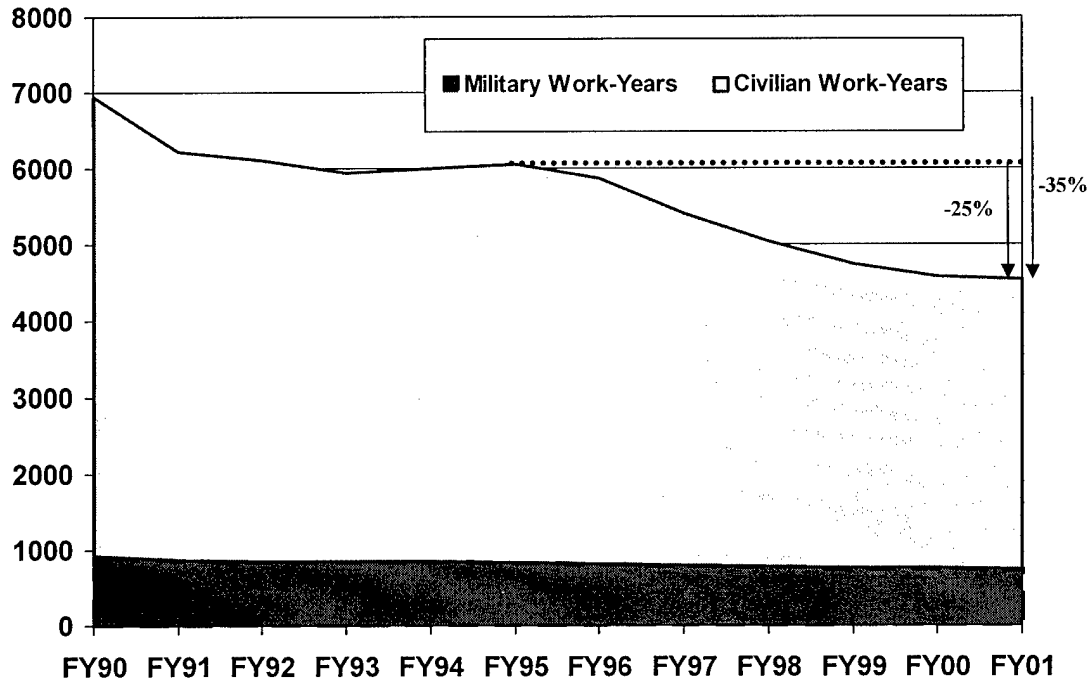
Figure 6. Recent Trends in SA-Administrative Work-Years
(Reflects only FMS and FMF funded personnel)

In the 1999 OSD/DA&M Survey on Customer Satisfaction, a common relationship cited by organizational customers of DSCA was one of partnering. DSCA is the central coordinating entity for that diverse and often contending cadre of organizations involved in policy guidance, review, funding, and execution of U.S. Security Assistance activities. For some of these customers, quantifying what it is that they are receiving in the way of a product from DSCA is difficult. For U.S. industry, the product is support for efforts to export defense items and services to foreign nations. For foreign customers, the products are those defense items, services, and training that they are procuring from the U.S. government via the FMS system. For these customers, the major issues are quality and timeliness of service, transparency of the FMS process, and cost.

K. Need for the DSCA as a defense agency -- mission validity

None of those persons interviewed during the course of this study effort felt that the DSCA could be eliminated. All felt that it performs an important function and that, although privatization might be viable for certain support functions (such as accounting for and managing routine transactions involving the trust funds, which is now done by DFAS), the core functions being performed by the Agency were essentially governmental in nature.

In addition, no one felt that the functions currently performed by DSCA could be effectively devolved to the Military Departments, either collectively or to one which would act as an executive agent for the rest. Without a central policy making, coordinating, and oversight organization like DSCA, the FMS business would likely devolve into three totally different systems, which would be a disaster for the foreign governments and would certainly multiply the workload on the relatively small cadre of policy makers and their staffs in OUSD(P), the Department of State, and the Hill who are charged with reviewing and approving FMS sales. In fact, one of the common complaints we heard from both U.S. industry and foreign customers was that in some respects, we do have three FMS systems (one for each Military Department), and that DSCA should be given more authority to enforce common policies and practices across the Military Departments.

While there is a policy aspect to DSCA's mission, there is also a substantial amount of program management and business related work that must be done by the Agency – making the notion of moving the Agency back into the OSD staff less than attractive. In fact, one of the strongest reasons for having such an Agency is that it serves as a mechanism whereby the considerations of U.S. foreign and defense policy and the desires of Congress are translated into policies and procedures for implementation. In its role as an integrating mechanism between the policy, financial, and programmatic aspects of Security Assistance, DSCA is in a unique position. This must be taken into account when considering the various options as to where the Agency reports, or whether the policy and implementation components of DSCA could or should be separated. Any organizational change that would weaken its capability to provide this integrating function should not be undertaken without careful analysis of its impact in this area.

Regarding the Agency's mission, we did receive several recommendations from U.S. industry (via a survey conducted for us by the NDIA, which will be discussed in more detail in a later section of this report) that DSCA's mission be expanded to include support, funded by appropriated funds, for industry marketing efforts that would lead to direct commercial sales (versus FMS) of defense equipment. They cited the UK's Defense Export Services Organization (DESO) as a model organization providing this type of support. They also cited the substantial reductions in DoD procurement funding that has driven U.S. industry into a posture where exports, previously only 5-10 percent of their business, now account for as much as 35 percent of their total business base in some sectors. Without these exports, DoD would need to increase procurement of certain systems for U.S. forces or face a serious degradation in the U.S. defense industrial base for such systems.

There is much to be said for these arguments. While legacy platforms will continue to be an essential part of our force structure for at least the next decade, it is not clear that the new administration will substantially increase procurement funding for such

systems in view of its stated policy to pursue radical transformation of the U.S. military establishment and focus on leap-ahead technologies. Thus, exports will continue to play a major role in preserving the industrial base for certain legacy systems.

Some in industry went so far as to suggest that the entire scheme of recovering U.S. costs for administering the FMS program via customer surcharges be replaced by a scheme whereby such costs are paid for by the U.S. taxpayer via appropriated funds. It is argued that the benefits of foreign sales to the U.S. government in terms of reduced unit costs resulting from increased procurement quantities and from the enhancement of U.S. national security by preservation of critical industrial base capabilities easily outweigh the cost to the taxpayer of covering these expenses (which would be in the neighborhood of $340M/year if current Congressional ceiling levels for FMS administrative funds obligations were used as a measure of how large such an appropriation might need to be at the commencement of such a scheme.[15])

However, considerable opposition to such a change in funding mechanism for FMS administration could be expected on the Hill and elsewhere. It would amount to a very significant subsidy to foreign purchasers of U.S. systems, and would certainly be viewed by foreign competitors of U.S. defense industrial firms as giving U.S. firms an unfair competitive advantage in the global arms market. If other countries then attempted to reduce this advantage by increased subsidies of one sort or another for purchasers of their indigenous systems, one could conceive of such action spawning a significant increase in the total volume of global arms transfers that would be viewed by many as detrimental to global peace and stability. However, while the notion of replacing the entire system of financing administrative FMS costs via customer surcharges by one that uses appropriated funds may not be feasible – given the current trends pointing to increased use of DCS and hybrid FMS/DCS approaches as mechanisms for foreign procurement of U.S. systems – it would seem that some level of appropriated funding to provide for DSCA support for such sales should be considered. An initial funding level on the order of 10 percent of current FMS administrative funding (i.e. about $35M/year) might be reasonable. Establishment of such a DCS support program should be coupled with changes in reporting and organization (discussed in Section III) that would give DSCA responsibility for oversight and coordination of U.S. government actions related to DCS. In view of these considerations, we have identified the question of appropriated funding to support DCS sales by DSCA as a major issue that should be taken up by the QDR.

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[15] Such a scheme could be expected to result in substantially increased FMS sales volumes for certain items, because it would amount to a U.S. government subsidy for the foreign buyer which would make FMS more attractive versus both DCS and purchases from foreign industry. This could increase the administrative burden and result in the need for higher appropriated funding levels in later years.

II. PERFORMANCE

In this section, we discuss the status of metrics and benchmarks that have been developed by DSCA in response to the DRI and other OSD directives. Some of these metrics are proposed for incorporation in the Performance Contract between DSCA and the Defense Management Council. The contract is slated to take effect in FY02. Metrics are organized into groups based on four major DSCA Business Areas: Security Assistance, International Training, Humanitarian Assistance and De-mining, and Warsaw Initiative/Partnership for Peace.

The Security Cooperation Deputies Forum, chaired by the Deputy Director, DSCA, reviews performance for the Security Assistance Business Area on a quarterly basis. Other members of this forum include the deputy directors of the Military Departments' Security Assistance Implementing Agencies, the Commandant, DISAM, and senior officials from DLA, DFAS and DCMA. The latter three Agencies play a significant role in the Security Assistance System. The February 2001 Forum reviewed performance measures related to FMS, DISAM, DLA, and DCMA. Representatives from the Foreign Procurement Group (foreign customers) and defense industry associations participated in the metrics portion of the agenda.

It should be noted that most of the metrics gauge the performance of the entire Security Cooperation system (which is also influenced by other Agencies such as DLA and DFAS), in addition to DSCA. DSCA may be considered as a sort of "corporate HQ" for this system with one key qualifier. Unlike the CEO of a major industrial corporation, the Director of DSCA does not have line management authority over the Military Departments' implementing activities in their conduct of SA activities. DSCA sets overall policy, provides funds, and serves as a major coordination point between the Military Departments and OSD, other Defense Agencies, the Department of State, OMB and Congress. Each of these organizations has a significant impact on process attributes being measured via the metrics.

Direct reporting lines for the Military Departments' SA activities run either to Military Departments' acquisition authorities or their International Affairs authorities. In the case of the Army, the Implementing Agency (USASAC) reports to the Commanding General of AMC, who reports to the Army Chief of Staff, while Army SA policy elements report to the Deputy Undersecretary of the Army for International Affairs within the office of the Secretary of the Army.

A. Metrics[16]

1. Security Assistance

- Letter of Offer and Acceptance (LOA) Processing

  This metric measures the percentage of LOAs offered within 120 days of receipt of the Letter of Request (LOR) from the foreign customer by the Implementing Agency. Sub-processes that impact on total LOA processing time include LOR submission and clarification; technology release (when applicable), LOA development, LOA review and approval, congressional notification, countersignature, etc. In some cases, congressional notification and review can require up to 50 days, so there are certain lower limits to practicable LOA processing time baselines. The current baseline of 120 days has been set to accommodate such factors.

  Goal: 80 percent of all LOAs processed within 120 days of LOR receipt.

- Shipped, but Delivery Not Reported to FMS Customer

  This metric measures the total dollar value of items that have been shipped to customers but not reported as deliveries through the FMS billing statement process. Failure to provide the customer in a timely manner with a detailed list of items shipped leads to customer dissatisfaction and prolongs case reconciliation and closure actions. Baseline value is $6.4B as of 31 March 1999.

  Goal: Reduce this balance to less than $500 million by the end of FY 01.

- Supply-Complete Cases Not Closed

  This metric tracks the number of FMS cases where FMS customers have received all articles and services ordered, but the case has still awaiting finalization and closure. This occurs for various reasons, including failure by the case manager to periodically perform case reconciliation activities over the life of the case. Tying up loose ends such as making sure that all the bills for items delivered during the case have been properly paid and the payments duly entered into the accounting system can take years in some cases. During this period, the customer's money is tied up in the trust fund and not available for other uses. The baseline for this metric is 2306, the number of supply-complete cases greater than two years old as of 31 March 1999.

  Goal: Reduce this balance to 1385 cases by the end of FY 01.

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[16] Source of Information on SA Metrics: Briefing from Quarterly Deputies Forum, 28 Feb 2001.

- <u>Accelerated Closures</u>

  The Accelerated Closure Program provides a vehicle for cases to be closed on an expedited, interim basis with a designated amount held in reserve to cover potential future billings as reconciliation and finalization is accomplished. Priority is given to closing cases for those customers participating in the program.

  Goal: 425 accelerated closures per quarter.

- <u>Supply Discrepancy Reports (SDRs)</u>

  A Supply Discrepancy Report documents an instance were the customer is not satisfied with items or services provided. This metric tracks SDRs submitted by FMS customers over one year ago which are in DoD hands but not yet resolved. Outstanding SDRs contribute to potential delays in finalizing and closing out FMS cases. The Baseline is 1685, which is the number of SDRs open and more than one year old as of 31 March 1999.

  Goal: Reduce the number of SDRs over one year old to less than 840 by the end of FY 01.

- <u>Problem Disbursements and Intransits</u>

  This metric measures disbursements that have been charged to the FMS Trust Fund but have not yet been appropriately recorded in official accounting records. Baseline is $609M as of 30 September 98.

  Goal: Problem Disbursements and Intransits will not exceed $110 million by end FY 01.

- <u>Prompt Payment Interest (PPI)</u>

  This metric measures prompt payment of interest incurred on behalf of the FMS program. Interest incurred on FMS payments is charged back to the FMS program.

  Goal: $2.0 million of PPI in FY 01.

- <u>Expired Leases Still Open</u>

  This metric measures the number of leases that have expired but remain open (material not returned, transfers pending, political impediments, etc.) as a percentage of the number of total open leases. Base line is 62 percent at the beginning of FY 2000.

  Goal: Reduce number of open, but expired, leases to 25 percent of the number of total open leases.

- <u>FMS Sales and Current Budget Plans</u>

  This metric measures current and projected expenses (budgets), income (revenue from sales), and the FMS Trust Fund balance.

  Goal: DSCA's goal is for its sales forecasts for each fiscal year to be within plus or minus 10 per cent of its actual sales. DSCA moved to a Performance Based Budgeting (PBB) process in Jan 200. In FY02, efforts are under way to implement a Performance Based Costing (PBC) system for DSCA/IA resource allocation assessments.

- <u>Average DISAM Class Size</u>

  This metric measures the cost-effectiveness of DISAM education and training.

  Goal: Achieve 75 percent fill rate for classes (25 students per class).

2. International Training

DSCA is developing an International Training Performance Measurement System, which is scheduled to be in place by 1 June 2001. Performance data would be reflected in the FY2003-FY2008 DSCA Performance Contract.[17]

3. Humanitarian Assistance and Demining (HA&D)

Metrics and performance goals relating to execution of program requests for Disaster Relief, Demining, Transportation, and other requests are included on the FY02 Performance Contract.

4. Warsaw Initiative/Partnership for Peace (WI/PfP)

Metrics and performance goals for execution of WI/PfP programs are included in the FY02 Performance Contract.

B. Performance contract

The Performance Contract for FY02 is now being negotiated with PA&E on behalf of the DMC. The IDA team was provided with a copy of a draft version of the contract. The contract contains provisions setting explicit goals for six of the metrics listed above.[18] It also adds a metric and a goal for FMS Sales Forecast Accuracy, and additional processing cycle time goals for Excess Defense Articles (EDA), and Munitions Cases. The draft also contains provisions for implementation of Performance Based Budgeting (PBB) and Performance Based Costing (PBC), and exploring alternatives for,

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[17] Source: Draft DSCA Performance Contract, 2/15/01.

[18] LOA Processing, Shipped/Delivery Not Reported, Supply-Complete Cases Not Closed, Accelerated Closures, Supply Discrepancy Reports, Leases Open but Expired, and DISAM Class Fill Rate.

DSCA

and issuing guidance on, appropriate funding categories for case work and management services (and related surcharges).

C. Performance trends

Table 5 shows results achieved versus goals for the metrics listed above, as of 30 September 2000.[19]

Table 5. DSCA Performance Statistics: FY00

Metric	BASELINE	FY00 GOAL	FY00 Result	FY01 GOAL
LOA Processing (% of LOAs processed within 120 days)		80	75	80
Shipped/Delivery Not Reported	$6.36B	$3.17B	$0.72B	$0.5B
Open Supply Complete Cases	2306	1730	1875	1384
Accelerated Closures (Cases per Quarter)		350	405	425
Supply Discrepancy Reports (SDRs) (Number of SDRs > 1 year old)	1444	1264	1043	843
FMS Problem Disbursements and Intransits	$609M	$152M	$110M	$110M
Prompt Payment Interest (PPI)	$5.412M	$2.5M	$0.9M	$2.0M
Expired Leases Still Open	70	60	58	18
DISAM Average Class Size (students/class)		25	9 of 11 classes > 25	25

The table indicates that significant progress was made in reducing the total dollar volume of items Shipped/Delivery Not Reported, the dollar volume of FMS Problem Disbursements and Intransits, and Prompt Payment Interest.[20] Goals were also met for Accelerated Closures, Supply Discrepancy Reports, and Expired Leases Still Open. In the case of Open Supply Complete Cases, the achieved value represented a substantial reduction from the baseline value. This metric tracks one of the most problematic aspects of the FMS business – and one which generates considerable dissatisfaction among foreign customers – so even modest progress reducing this metric is beneficial.

In the case of LOA processing, while the goal was not achieved, the achieved result was relatively close to the goal. This metric was approved by DSCA on 1 March

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[19] Briefing from Quarterly Deputies Forum, 29 November 2000.

[20] For FY00, results were determined by only tracking PPI paid against current FY funding. For FY01, the methodology was changed to track total PPI paid against all FYs funding.

2001 and data in support of the metric have only been collected for the last six months. As additional data are collected, additional metrics, or refinements of this metric for specific types of cases, may be introduced. It seems likely that as more data are collected and analyzed, a better understanding of the key drivers of LOA processing time will emerge that will be useful for identifying process improvements to be undertaken in this area. Customer inputs should also be solicited so as to determine the correlation between improvements in the current metric and customer satisfaction. Such inputs may indicate a need for either adjusted goals or a different metric at some point in the future.

D. Customer satisfaction

The above discussion leads to a broader issue: customer involvement in determining metrics and performance goals. It is not clear how much involvement external customers have had in development of the present metrics and goals. There are intangibles which come to play in the customers' subjective assessment of how well DSCA and the Security Cooperation Community are doing in terms of improving business processes. At present there is no systematic, SA-community-wide program for surveying customer views on how well the system is performing. We were informed that a pilot program to address this is being conducted in USASAC using DSCA Reinvention funds and under the overall supervision of a DSCA-led IPT. This effort should help tie DSCA business process improvement efforts more closely to customer perceived process deficiencies.[21] These efforts are to be commended.

E. Assessment

DSCA has done a good job in identifying metrics to measure certain key performance parameters of the FMS system, and many of the performance goals are being met or significantly exceeded. Whether the goals are appropriate (i.e., too stringent or not sufficiently challenging) and how meeting these goals contributes to overall customer satisfaction are issues beyond the scope of this study. Our interviews suggest that from the standpoint of some customers outside the U.S. government, little tangible improvement in end-to-end system performance is evident. We will discuss this matter in more detail in the next section where we deal with management and business process improvement initiatives.

The DSCA strategic plan states that the main reason the DSCA exists is "to support the needs of U.S. National Security and foreign policy objectives and to promote stable security relationships with friends and allies." To address how well this goal is being achieved, we interviewed several persons in the Department of State and on the

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[21] Draft Performance Contract, p. 13.

Hill who represent the major Executive and Legislative Branch "customers" with regard to this aspect of DSCA's work. Views expressed as to how DSCA is doing in this regard were generally quite positive. This contrasts sharply with the 1999 Defense Agencies Survey results for DSCA, which were among the lowest of all the defense agencies.

The survey was based on inputs from U.S. government "customer organizations" and not from industry or Foreign Procurement Group representatives. In fact, outside of the Department of State, Congress, and OUSD(P), it is hard to identify what other U.S. government organizations are really "customers" of the Agency. DSCA plays an oversight role with respect to the Military Departments on security cooperation matters. Perhaps the next survey should place greater emphasis on obtaining inputs from industry, Foreign Customers, and the above three parts of the U.S. government. This would not necessarily improve the Agency's ratings dramatically because, as we note in the next section, both U.S. industry and foreign customers are still waiting to see tangible improvements in end-to-end processes related to FMS. However, it would likely offer a more accurate reflection of the concerns of the real stakeholders of the DSCA.

Use of metrics and benchmarking in support of business process improvement may have a bigger overall payoff for those agencies whose business lines are supported by processes that are candidates for statistical process control. Agencies whose business involves a great deal of voluminous and repetitive transaction processing, such as DECA, DFAS, DLA, and the like are well suited for use of metrics to measure performance. In the case of agencies like DARPA, BMDO, and DSCA, only certain aspects of the overall business of the agency fall into this category. The utility of metrics as a tool for assessing overall agency performance in such cases is limited. Moreover, the DSCA metrics really measure system performance rather than agency performance per se. In the case of a metric like LOA processing time, a breakout identifying the contributions of each of the relevant organizational players to the total is probably of greater value than the total itself in facilitating end-to-end process improvements.

III. MANAGEMENT

In this section, we discuss DSCA's reporting chain, its relationship with other defense agencies, FMS reinvention activities, planning, programming and budgeting issues, and IT initiatives being pursued by the Agency.

A. DSCA reporting chain

OSD originally formed DSCA via a transfer of personnel from OASD/ISA. ASD/ISA has been PSA for the Agency since that time. During this period, the reporting level and scope of responsibility for ASD/ISA have changed. When DSAA was formed, ASD/ISA reported directly to the SecDef/DepSecDef, and addressed regional security

issues on a global basis. Upon establishment of USD(P), ASD/ISA's reporting point was changed to that official. Also, a new position – ASD/International Security Policy – was established, and regional security policy responsibilities were divided between this office and ASD/ISA in 1981. These changes reduced DSAA's reporting level within OSD.

During the Reagan Administration, this change had minimal impact on the stature and influence of the Agency, due to factors that included the close proximity of the Director's Office to those of USD(P), ASD/ISA, ASD/ISP and the SecDef, and also due to the close working relationships among the holders of these positions. It was common practice during this time for the Director of DSAA to accompany the SecDef on foreign trips; the Director also had a significant voice in top-level OSD policy discussions and decisions. DSAA personnel had offices in the Pentagon, facilitating close working relationships with ISA, ISP, other offices in OSD, and the Service HQs.

During the first Clinton Administration, there were major changes in organization and focus in OUSD(P). Security Assistance was accorded a lower level of influence and visibility in the policy process, and the DSAA was physically relocated to offices in Arlington, VA.[22] The Director of DSCA has not regularly traveled with SecDef on foreign visits during the past eight years. While certain individual arms transfers continued to receive high level attention in OUSD(P), the role and visibility of Security Assistance in security policy implementation has lessened.

A similar assertion can be made as to the role SA played in the Clinton foreign policy. Human rights considerations played a bigger role in the Department of State's policy making, with SA activities being either curtailed or sharply reduced in scope. Substantially reduced levels of IMET and FMF funding were also seen during this administration.

With a new administration in place, now would seem to be a good time to reassess the role and level of visibility of DSCA and those Security Assistance activities it oversees in the policy process. If we desire to reduce operating tempo and deployment frequency for U.S. forces engaged in small scale contingencies and regional peacekeeping and peace enforcement activities, we will need ways to encourage allied and friendly nations to carry more of this burden. Increased Security Assistance activities may be quite useful in this regard. We recommend that the QDR undertake a review of Security Assistance and other Security Cooperation programs and activities to identify new opportunities to enhance regional security and ensure that these important programs are supportive of the new Defense Strategy now under development in the SecDef's Strategic Review.

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22 This relocation predated the commencement of Pentagon renovations that have recently required temporary relocation of many activities in the Pentagon to other Washington, D.C. area locations.

Also, the "procurement holiday" that characterized the period following the end of the Cold War led to export sales becoming a critical factor in maintaining any sort of warm production capacity for certain systems, such as the F-16. Foreign complaints about the FMS system, increasing sophistication of foreign purchasers in terms of contract management, and U.S. industry's desire for increased profitability and reduced U.S. government contract oversight have led to a perceived movement away from FMS towards DCS as the preferred mechanism for arms purchases during this period.

In response to these trends, and complaints from both US industry and foreign purchasers, DepSecDef Hamre directed in 1998 that DSCA reinvent the FMS process so as to make it more responsive to the needs of its customers. FMS reinvention activities and progress to date are discussed in a later section.

The Clinton Administration also put forth significant efforts to streamline the arms export licensing process so as to facilitate both industrial teaming and defense exports of items where it is determined that such exports are in the best interests of our nation. The Defense Trade Security Initiative (DTSI) included 17 initiatives designed to reduce paperwork and speed processing of licenses for less visible and contentious cases, while freeing up manpower to do a more thorough job of reviewing license applications for serious cases where transfer may not be in our interests.

As a result of these trends and recent initiatives, the visibility of Security Cooperation and DSCA within the DoD has increased in recent years. However, organizational arrangements also need to be updated if coherent DoD policy and effective oversight and coordination of FMS, DCS, Humanitarian Assistance and Demining programs, technology transfer, foreign disclosure, and other functions attendant to international defense cooperation are to be achieved.

The recently released report of the Commission on National Security/21st Century recommends abolishing the ASD/SOLIC office[23] and transferring its regional responsibilities elsewhere in the Policy organization. It also notes that having three different organizations dealing with regional issues results in "a very complex structure that makes coordination difficult within the Defense Department and with other government agencies."[24] This is particularly noticeable in Humanitarian Assistance, Demining, and Disaster Relief operations where involement of multiple policy organizations reduces response time and adds to confusion.

The above factors suggest that a comprehensive reexamination of DSCA's reporting relationships and role in future policy coordination activities should be

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23 Road Map for National Security: Imperative for Change, The Phase III Report of the U.S. Commission on National Security/21st Century, February 15, 2001, Recommendation 24, p. 64.

24 Ibid.

undertaken. Changing the Agency's reporting level to USD(P) or PDUSD(P) would increase the overall stature of the Agency and could allow it to engage more effectively other organizations, both in and out of DoD, that have a stake in Security Cooperation matters. Such realignment could also be coupled with realignment of DTRA/Technology Security Directorate (DTRA/ST), and broadening of DSCA responsibilities for oversight and support of hybrid FMS/DCS. Along with increased funding for IMET and FMF, these changes could lead to a more effective and coherent policy for a wider spectrum of arms transfers and other types of Security Assistance. We have proposed several QDR issues in the next section to address these issues.

B. The option of transferring DSCA oversight from USD(P) to USD(AT&L)

Having the Director of DSCA report to USD(AT&L) has been advocated by a number of persons and organizations, such as the Defense Science Board. Several persons we interviewed favored this option. On this issue, the old adage "where you stand depends on where you sit" seems operative. Those who view industrial base issues as paramount in the calculus for arms transfer decisions, often (though not always) prefer the AT&L option. Those who view arms transfers and defense sales as primarily instruments of foreign policy, prefer the current arrangements. We can conceive of situations where the USD(AT&L) might be able to effectively oversee the Agency, depending on the background and interests of the individual serving as USD(AT&L). However, if we go beyond particular personalities or individuals and consider the broader roles of the two offices, it seems clear that USD(P) should retain oversight responsibility for the Agency.

While the current environment is quite different from that of the Cold War, with "globalization" having become the operative principle with regard to issues of availability of technology and sharing of information, this does not change the fundamental fact that arms transfers are still primarily a matter of national security and foreign policy. In view of this new environment, it is incumbent on the policy community to make the necessary adjustments in terms of organization and emphasis, so as to properly factor such considerations into the policy process. As to emphasis, there was a change in the second Clinton Administration in that initiatives related to globalization (export licensing reform, negotiation of bilateral measures with the UK and Australia to facilitate defense industrial cooperation) received high-level OUSD(P) attention in addition to strong advocacy by AT&L. Because of the breadth and complexity of the issues attendant to globalization, a cooperative approach that involves AT&L is certainly necessary in crafting effective policies related to transfers of defense items, technologies, and services. However, USD(P) should provide leadership for this effort, and the Director of DSCA should be one of the principal advisors to USD(P) in this regard.

Some have suggested that having DSCA report to USD(AT&L) would be an improvement over the current situation. Arguments have been made that USD(AT&L) maintains a relationship with the foreign National Armaments Directors (NADs) and other procurement officials, and that aligning DSCA under AT&L would help facilitate FMS reinvention and improve coordination between FMS sales and U.S. procurements so as to maximize savings from larger buys and optimize our capability to sustain the U.S. industrial base. In our view, there are other considerations that limit the validity of these arguments.

First, decisions to purchase major items are usually not made by the NADs, but at higher levels of government. Policy is often more effective in engaging at this level, where technology issues are not as important as broader political, economic, and security issues.

Second, most of the coordination between FMS and US procurement already takes place within the Military Departments. In the Military Departments, the placement of SA activities varies. In the Air Force, SA functions report to the Air Force equivalent of USD(P). In the Navy, they report to the SAE (with a dotted line to the Navy Equivalent of USD(P)).

C. Defense Reform Initiative impact on DSCA

DSCA was involved in three DRI decisions:

- Transfer of the Humanitarian Assistance and De-mining program management from OUSD(P) to DSCA.
- Transfer of the Warsaw Initiative/Partnership for Peace Program management functions from OUSD(P) to DSCA.
- Transfer of the OUSD(AT&L) International Programs Activities to DSCA.

The first two actions have taken place and appear to be working well; the third was aborted after about a year of discussion and negotiation between DSAA and OUSD(AT&L). The AT&L organization's primary role is to provide direct support for the Undersecretary on international issues, including preparation for bilateral and multilateral fora in which he is one of the Principals. Having this support provided by an organization outside of AT&L was not deemed practical in the final analysis.

D. Relationships with other agencies

DSCA has significant relationships with a number of other agencies such as DFAS, DCMA, DLA, DISA, and DTRA. DSCA funded 479 work-years of effort in FY00 at DFAS via Security Assistance funding. Over 700 work-years of effort at DCMA were reimbursed by the FMS Contract Administration Services (CAS) surcharge account

for CAS work (quality assurance/inspection) and contract management on FMS contracts associated with FMS cases. The Defense Contract Audit Agency (DCAA) is responsible for performing the majority of the CAS audits on these FMS cases. Through the respective Military Department and, as a separate implementing Agency of its own, DLA is involved with numerous cases involving logistics support for foreign owned systems, and also provides warehousing, packaging, and distribution services for the Humanitarian Assistance Program in DSCA. DSCA will assume the warehousing functions on its own behalf in the FY02-03 time frame. DISA hosts a number of Security Assistance-related information systems that are used by not only the DSCA but also by the Military Departments and other organizations involved in case development and execution. DTRA's Technology Security Directorate (DTRA/ST) manages the DoD coordination and review process for commercial exports, and also participates in the NDP process.

At the present time, the coordination and review processes for FMS differ from those for DCS sales. While an export license is not generally needed for FMS sales (although licenses are needed in some cases for industrial pre-sale marketing activities), a DoD review of exportability, technology transfer, and foreign disclosure issues attendant to the FMS case is conducted as part of the LOA development process overseen by DSCA. The Department of State has the responsibility within the Executive Branch to determine whether an FMS sale should go forward. In making its determination, the Department of State considers the position of the DoD as developed through the DoD review cited above.

In the case of direct commercial sales, a different procedure is used. A license application is submitted to the State Department, which then, if required, sends it to DoD for coordination. DTRA/ST, which has its own technical staff, manages the DoD coordination process. In some cases, the DTRA/ST staff formulates the DoD position, but in most cases they send the application to the appropriate Military Department and to other points in OSD for coordination. Generally the same people in the Military Department would consider the request in FMS and DCS situations. However, the DTRA staff who would weigh in on the decision for DCS are not normally included in the coordination loop if the FMS route is pursued.

As a result of these arrangements, there is sufficient opportunity for divergence that several persons we interviewed felt that actions should be taken to better align the two processes. Better methods of communication between DSCA and DTRA would facilitate this. As of now, the fact that DTRA reports to USD(AT&L),[25] while DSCA reports to USD(P), increases the communications problem. One solution would be to

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[25] Technically, the Director of DTRA/ST is dual-hated as Deputy Undersecretary of Defense/Technology Security Policy and in this capacity reports to ASD/S&TR in OUSD(P). However, the primary performance rater of the Director of DTRA/ST is the Director of DTRA, who reports to USD(AT&L).

move the DTRA/ST function back to USD(P) as it was prior to the DRI. It would not be consolidated with DSCA. However, the fact that DSCA and this Directorate would now be under a common reporting organization would improve the communications channels and facilitate rationalization of the FMS and DCS decision processes.

In view of the above considerations, we recommend that the QDR re-examine the merits of the DRI decision moving DTSA into DTRA and consider the costs and benefits of restoring the state of affairs prior to DRI. This is also listed as a QDR issue in the chapter on DTRA.

E. FMS reinvention activities and progress to date

Users of the FMS system, including foreign customers and U.S. industry, have complained for years about inefficiencies in procuring through FMS. This dissatisfaction, coupled with other factors including reduced threat perceptions and defense budgets in the post-Cold War era, the rise of alternate suppliers on the global arms market, and the weakness in Asian economies resulted in a steady decline in purchases through FMS. Revenues have declined for sustaining the administrative infrastructure that was sized at the beginning of the 1990s. Deputy Secretary of Defense John J. Hamre concluded in 1998 that major flaws existed in the system and a comprehensive "reinvention" was needed to sustain FMS as a viable instrument of our foreign policy. Security Assistance organizations throughout DoD responded with combined and independently initiated efforts to address these deficiencies and establish new and improved ways of doing business.

The Military Departments initially led the way with the U.S. Navy and Air Force establishing reinvention initiatives of their own to tackle many of the endemic deficiencies that had been identified by various reinvention teams. A widely held industry view is that a failure by DSCA to take control in the beginning and provide strong leadership resulted in too much effort being wasted by the Services on marginal issues. In May 1998, Deputy Secretary of Defense Hamre's direction resulted in DSCA forming Integrated Process Teams (IPT) with goals of reducing business cycle times, improving customer satisfaction and participation, decreasing resource consumption, improving U.S. government competitiveness and reputation, and maintaining Security Cooperation as a credible method for projecting U.S. interests around the world. The IPTs produced three white papers that addressed FMS deficiencies in the categories of: (1) Process Transparency; (2) Pricing, Finance, and U.S. Government Cost Recovery; and (3) Arms Transfer/ Technology Transfer. These white papers defined modest goals for reinvention and established a starting point for more comprehensive FMS improvement efforts.

DSCA has chartered four IPTs that are working to implement a number of short-term initiatives that were initially included on a list of over 100 reinvention activities

undertaken or planned within the Military Departments and DSCA. The IPT areas of focus are (1) Personnel and Training, (2) Finance, (3) Partnering, and (4) Business Processes. The goal is to effect a number of improvements to the FMS process by July 2001 and transition the remaining initiatives into a longer-term business process reengineering effort. During discussions between the IDA team, defense procurement attaches at the foreign embassies, and U.S. industry representatives, FMS reinvention has been typically characterized as "inching forward…with many systemic issues remaining to be resolved."

For systemic progress to be made, FMS reinvention must be driven deeper into the U.S. acquisition system than has happened so far. DSCA alone cannot make this happen. A broader base of support will be needed at the top to impact attitudes deeper in the various acquisition and logistics stovepipes where the actual work of FMS is carried out. A strategy that starts and ends with top OSD leadership calling on the leadership in one stovepipe (Security Assistance) to carry out reforms that can only be effected with the cooperation of organizations in other stovepipes (Acquisition, Logistics, Finance and Accounting, etc.) is not likely to succeed. IPTs bringing people together at lower levels across stovepipes may identify the problems, but will be able to effect only marginal implementation actions. A broader base of support will be needed to accomplish this.

The payoff could be very high. A survey of foreign customers conducted by Hicks and Associates included these findings:

> *Only 13 percent of developed countries surveyed 18 months into the FMS reinvention initiative favor FMS as the preferred mechanism to acquire U.S. defense equipment; 46 percent preferred DCS; the remainder preferred to examine both FMS and DCS alternatives.*

> *When questioned as to what their preference would be, given a reformed FMS system, none of those surveyed indicated a unilateral preference for DCS. They either preferred FMS outright (now 59 percent), or would continue to examine both alternatives (46 percent).*[26]

F.   Planning, programming, and budgeting for FMS administrative funds

One of the critical areas where improvement is needed in the FMS system is the area of programming and budgeting for FMS administrative funds. A recent GAO report on this subject concluded that:

> "1)   The Department of Defense (DoD) does not have sufficient information to determine the administrative costs associated with the foreign military sales program

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[26]   Source: Hicks and Associates Briefing excerpt shared with IDA team on Feb. 7, 2001. Figures cited by permission of Mr. Frank Cevasco.

(2   DoD is unable to use actual cost as a basis to determine what charges should be applied to foreign military sales, and does not know if the percentage charged to the customer on an individual sale's dollar value is appropriately recovering foreign military sales program cost

(3)   The allocation of administrative funds to activities responsible for implementing the foreign military sales program is based on past administrative budget outlays and perceived needs

(4)   The military Services directly charge customers for some administrative tasks on individual sales

(5)   These are referred to as program management charges

(6)   Under existing guidelines, the Services have discretion concerning when to apply program management charges and which administrative activities associated with foreign military sales should be funded through the administrative budget and which should be funded as a direct charge."[27]

The DSCA is now in the process of implementing a Performance Based Budgeting system, and has contracted for development of a Performance Based Costing system in order to deal with some of the issues cited by the GAO. The PBB system will consist of three phases: Data and Information Gathering, Planning and Programming, and Budgeting. The cycle starts in January with a call for Security Cooperation Issues, and development of sales estimates and approved revenue projections. This data are fed into the Planning and Program process, which includes promulgation of the Corporate Security Cooperation Performance Plan (February), development of Implementing Agency Security Cooperation Performance Plans (March), and a Security Cooperation Programming Conference (April).

The Budgeting process includes DSCA FMS Budget Calls (May), Implementing Agency Budget Submission and Corporate Budget Conferences (August), Release of DSCA Budget (September), OMB hearings (October), and the DSCA Presidential Budget Submission (December). Programming and budgeting are organized around six core areas, which are analogous to the FYDP major program areas: Pre-LOR, Case Development, Case Execution, Case Closure, Other Security Cooperation, and Business Sustaining. The PBB system will become fully operational starting with the FY03 budget year. FY02 is the transition year, and the PBB process is now being exercised in a "practice run" for that year.

The purpose of the Performance Based Costing system is to provide analytical tools for estimating the costs of performing key functions associated with each of the core areas. These would correspond to the various analytical tools used within the

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[27] Foreign Military Sales: Efforts to Improve Administration Hampered by Insufficient Information (Letter Report, 11/22/1999, GAO/NSIAD-00-37).

programming community in DoD to justify program resources based on mission analyses and cost models. At present, DSCA is funding fully the implementation of a Performance Based Costing system within DSCA and the Military Departments. .

The Program Management lines referred to in points 4-6 in the GAO report are additional costs of managing an FMS case to the foreign government and may be a disincentive to purchasing through FMS. Foreign FMS customers and U.S. industry have complained that FMS surcharges can be as high as 10 percent due to these additional charges added by the Military Departments. Partly in response to the GAO audit, DSCA started requiring the implementing agencies to provide worksheets with each applicable LOA document submitted to DSCA in order to justify the funding levels in these and other lines involving manpower. DSCA has indicated that it believes that the level of reporting detail required by the worksheets is necessary to ensure that the Military Departments are using common rules and procedures in justifying these lines.

We recommend that after sufficient time has passed to allow DSCA to establish common procedures, DSCA consider relaxing the requirement to submit detailed data with all LOAs containing manpower lines. The Military Departments should still be required to prepare such data for each LOA including such lines, but these data should be subject to random audit by the DSCA Comptroller rather than being submitted and reviewed by DSCA with all LOAs.

G. Defense Security Assistance Management System (DSAMS)

Information technology has been utilized in support of Security Assistance management activities for many years. The main problem has been a lack of standardization and interoperability among systems in use in the Military Departments and at DSCA. Prior to commencement of the DSAMS effort, SA functions were supported by 13 legacy systems which are "collectively expensive to maintain, aging, have limited interfaces, and are non-standard."[28] The goals of the DSAMS system are to:

- "Build a single system integrating the best features of existing systems along with new technology into a new standard DoD system.
- Reduce costs by replacing all or part of 13 existing systems.
- Improve customer support and reduce costs by standardizing/re-engineering business processes across the Military Departments, DLA, DFAS, and DSCA.
- Improve information services by logically consolidating SA information into the same arena."[29]

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[28] DSAMS Program Briefing, DSAMS PMO, 11/1/2000.

[29] Ibid.

Initial funding for DSAMS commenced in FY96 and the Defense Security Assistance Development Center (DSADC) was established in Mechanicsburg, PA in 1997. 135 billets were transferred from the Military Departments to DSCA at that time. Current end strength at DSADC is 102 billets. The remaining transferred billets are at DSCA headquarters. DSADC's primary missions are to build/maintain, with contractor assistance, the DSAMS, and to continue to maintain the Army's Centralized Integrated System for International Logistics (CISIL) and Navy's Management Information System for International Logistics (MISIL) legacy systems until these are replaced by DSAMS.[30] DSADC reports to the DSAMS Program Management Office (PMO) located in the Information Technology Directorate of DSCA HQ. To date, $74M has been invested in the DSAMS development effort. Another $49.5M is programmed for the effort during the FY01-FY04 period.[31]

DSAMS comprises four modules that support different phases of the FMS process. The first two modules (for Case Development and Case Implementation) are complete and have been fielded, replacing three legacy systems and part of a fourth system.[32] A third module, Foreign Military Training, is now under development. What was to have been the Case Execution Module was in the business process re-engineering phase when a decision was made in October 2000 to suspend any further work. DSCA is in the process of assessing a new system (or changes to existing systems) to cover Case Execution functionality.[33]

Among the core FMS functions (Pre-LOR activities, Case Development, Case Execution, and Case Closure), Case Execution is believed to consume the most resources. According to a recent DSCA study, Case Execution activities account for about 63 to 67 percent of available FMS administrative funding.[34] Also, the main impact of DSAMS on the international customer will be in the Case Execution area.[35] Therefore, this would seem to be an area where additional resources might be profitably applied in the DSAMS development area. If it is possible to accelerate the requirements determination process for the Case Execution module in parallel with continuing development of the Training module, measures should be considered for doing so.

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[30] DSADC Briefing to Lt. General Walters, 5 Dec 2000.

[31] IT History and Funding Profile, DSCA COMPT/RM, 3/1/01, and DSAMS Total Program Cost Analysis, DSCA DSAMS PMO, 2/16/01.

[32] DSCA Transition Background Paper on Defense Security Assistance Management System (DSAMS), Kent Wiggins, DSCA, 17 November 2000.

[33] Director DSCA Memorandum, 18 October 2000.

[34] DSCA, Programmatic and Budget Guidance for Foreign Military Sales Administrative Budget (FY02-FY03), Feb. 15, 2001.

[35] DSAMS Program Briefing, DSCA, 1 November 2000.

H. Assessment

The Security Assistance business is one of the most complex areas in terms of interfaces, reporting requirements, laws, regulations, and multiplicity of customers that is dealt with by any Defense Agency. The FMS process provides the means of integrating foreign customers into the U.S. acquisition system. In addition to dealing with the complexities and quirks of U.S acquisition regulations (FARS & DFARS), financial management regulations, the U.S. logistics system, the military education and training system, and other U.S. systems that the FMS system must interface with, DSCA must deal with U.S. export control, technology transfer, and foreign disclosure processes, U.S. industry, foreign customers (both in the U.S. and in-country), various elements of OSD, the Military Departments' security assistance and acquisition organizations, Unified Commands, U.S. Embassies, the State Department (various offices), and last but not least, the U.S. Congress in order to execute the DSCA mission.

Given such a situation, it should not surprise anyone that there are many people who are not happy with various aspects of the DSCA and the FMS process. Certainly there are many problems yet to be overcome in reforming this process. However, there are also many benefits attendant to FMS, in spite of the difficulties that come with it. Dr. Hamre recognized this when he directed DSCA to reinvent the process. A number of initiatives are under way, but a more concerted and focused effort, with a broader base of support both within and without DoD, will be needed to achieve significant end-to-end process improvements that both U.S. industry and foreign customers desire. The QDR should identify specific steps for accomplishing this.

IV. QDR ISSUES

- Should the Director, DSCA report directly to USD(P) or PDUSD(P) instead of reporting to USD(P) through ASD(ISA)?

  Returning DSCA to its original reporting level (relative to SecDef) would allow DSCA to more effectively support the Policy community and increase its stature when dealing with the Department of State and the Congress on important security cooperation matters. Reporting to an official with global versus limited regional policy responsibilities would also facilitate optimal global allocation of scarce IMET and discretionary FMF resources, as well as coordination on Humanitarian Assistance/Demining program issues.

- Should the DTRA Technology Security Directorate be moved out of DTRA and returned to its status prior to DRI as a defense activity under USD(P)?

  This would facilitate better communications linkages between this organization and DSCA and reduce divergence between the parallel export and technology transfer review processes for FMS and DCS that now exist.

- How can broader inter-Agency and intra-DoD support for implementation of critical FMS reinvention initiatives be achieved?

  DepSecDef Hamre directed DSCA to begin FMS reinvention in May 1998. Almost three years later, U.S. industry feels DSCA has done much to improve government-industry relations on FMS matters. Both industry and foreign customers are frustrated, however, with the slow pace of systemic change. DSCA plans to implement a number of near-term improvements to the FMS process in July 2001. Acceleration of longer-term reinvention efforts with a focus on business practice reengineering is also important. Both will require changes in policy, practice, and attitudes within the Military Departments and outside of DoD. DSCA alone cannot make this happen. A broader base of support for implementation is needed.

- Should DSCA be given a larger role in overseeing, coordinating, and supporting direct commercial sales (DCS) in addition to its role in directing and overseeing FMS, and if so, what legislative, legal, organizational, management resources, and funding changes would be needed to support such a role?

  The sale of U.S. defense items and services (whether by FMS or DCS or a combination of the two) is a key tool for achieving U.S. foreign policy and national security goals in the 21st Century. For the regional CINCs, these sales contribute to improved coalition building, interoperability, forward presence, and regional stability. Rapid economic globalization has accelerated the trend of foreign customers acquiring U.S. defense items and services via DCS, or a combination of DCS and FMS. The old view that government doesn't have a stake in DCS and that the contractor doesn't need government involvement in such sales is becoming less valid. Such sales have a significant national security equity that government should be interested in. Moreover, the technological complexity of most sales increases the importance of taking a proactive U.S. government position on the munitions licensing process and government-to-government dialog on such sales.

  U.S. industry has indicated considerable interest in increased DSCA support for the promotion of defense exports via both DCS and FMS. The UK Defense Export Services Organization (DESO) is offered as a model for how this can be done. DESO is funded via appropriated funds. Should the U.S. adopt such an approach? Or, should industry pay DSCA for such support?

- Should DoD encourage and support increased funding for the Foreign Military Financing (FMF) and IMET Programs (which are in the Foreign Operations Appropriation)? If so, where should increased resources for these programs be targeted to best support U.S. Foreign Policy goals and the new Defense Strategy?

  Out of a total FY01 FMF appropriation of $3.545B, all but $225M is fenced by Congress for assignment to certain countries. Increasing discretionary resources in the program could have a big payoff in terms of building and sustaining our security relationships in a number of countries. The current

situation unduly limits DoD's ability to capitalize on opportunities to enhance regional security in areas where indigenous resources for defense investments are limited. IMET is recognized as perhaps the most cost-effective tool in Security Assistance. Should IMET funding be increased? If so, by how much, and where should additional resources be targeted?

- What measures can be taken to accelerate the development and fielding of DSAMS?

Progress has been achieved in implementing DSAMS, with two modules (Case Development and Case Implementation) in service, and a third (Foreign Military Training) now under development. Work on what was to be the final module, Case Execution, has been suspended. DSCA is assessing a new system (or changes to existing systems) to cover case execution functionality. Should additional resources be provided to accelerate this process, and what other constraints limit such acceleration?

XII. DEFENSE CONTRACT MANAGEMENT AGENCY

I. MISSION

A. Mission, vision, and strategic goals

The mission of the Defense Contract Management Agency (DCMA) is to "Provide customer-focused contract management services throughout the acquisition cycle—around the clock, around the world."

The DCMA is responsible for contract administration of DoD contracts in accordance with the Federal Acquisition Regulation (FAR) and the Defense Federal Acquisition Regulation (DFAR) for the acquisition of weapons systems, supplies and services throughout the acquisition life cycle. The DCMA teams with DoD program managers, procurement officers, and industry to provide business management, financial and technical services in the management of 325,000 prime contracts valued at $850 billion performed by 25,000 contractors. The DCMA provides contract management services support for almost all DoD contracts, with the exception of Army ammunition contracts, Navy Supervisor of Shipbuilding contracts, and the Office of Naval Research (ONR) contracts. DCMA also manages contracts from other authorized federal agencies, foreign governments, and international organizations DCMA-provided contract management and administration services include the following:

- Providing pre-contract advice to evaluate the competence, capability, and reliability of new and existing contractors.

- Managing contracts through final product delivery including major program support services, product performance services, delivery services, pricing and contract modification services, payment and financial management services, and aircraft operations services.

- Contract closeout and termination services until all business, technical, and financial matters are reconciled and resolved.

- Providing combat service support contract management and administration services.[1]

The DCMA operates under the charter defined in DoD Directive 5105.64, September 27, 2000, Defense Contract Management Agency under the authority, direction, and control of the Under Secretary of Defense for Acquisition, Technology and

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[1] As a combat support agency, DCMA provides contract management services for the contractor-provided services and supply support to the unified combatant commands within their theaters.

Logistics (USD (AT&L)). DCMA officials are located in or near essentially all significant "plants" that provide goods and services to the DoD. These "plant representatives" constitute the Department's primary day-to-day interface with the U.S. defense industry and provide the "eyes and ears" that protect U.S. Government interests.

The DCMA Vision is: DCMA people, teaming to provide world-class contract management services.

DCMA strategic goals are to:

- Deliver great customer service
- Lead the way to efficient and effective business processes
- Enable DCMA people to excel.

B. Origins and rationale

1. Early history[2]

From the earliest years of our nation's history, the military relied on contracting for equipping and supporting its warfighters and the support of its missions. The success of any procurement action was dependent to a large extent on the effective administration of those contracts to ensure that contractors met contractual requirements for cost, schedule, and technical performance. An understanding of military procurement history beginning with the Revolutionary War leaves no doubt of the value of contract management and the need for uniform and centralized management of procurement.

During the Revolutionary War, the Continental Congress passed a resolution providing for a Quartermaster General and a Commissary General to acquire supplies for the troops with little supervisory control. Under this system, the Quartermaster General and the Commissary General would buy, store, transport, and distribute needed goods. The Army depended on the commissaries that were attached to the Army to purchase and issue needed rations. This contract system drew heavy criticism as contractors often sold tainted provisions at inflated prices and failed to maintain adequate reserves. In 1792, Congress attempted to remedy shortcomings in contracting and passed the first law regulating federal procurement. In 1795, Congress attempted to consolidate federal procurement and created the Office of Purveyor of Public Supplies within the Treasury Department to procure all articles of supply for the Army and Navy. Three years later Congress reversed itself, authorizing the War and Navy Departments to procure their own supplies. The Purveyor of Public Supplies continued to execute all contracts except those for subsistence. The practice of soliciting bids by public advertisement and awarding contracts to the lowest bidder had become routine.

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[2] Defense Logistics Agency-provided paper entitled "A History of Defense Contract Management", undated, by Janet McDowell, Defense Logistics Agency Historian *(DCMA was part of DLA until March 27, 2000).*

During the War of 1812, Congress abolished the Office of the Purveyor of Public Supplies and created the Office of the Commissary General of Purchases under the direction of the Secretary of War. The Quartermaster Department was established to aid the Secretary in buying, inspecting, and distributing military equipment. The separate contracting system for subsistence was abolished due to poor performance and lack of accountability; the War Department returned to the commissariat system, resulting in reduced costs and improved delivery. From 1815 to 1860, the contracting processes for both the Army and Navy became more structured to ensure accountability and reasonable prices. The Civil War, calling on the supply departments to provide for a force many times the size of the small prewar army, overloaded the procurement infrastructure and spawned an unprecedented number of scandals. Congress enacted legislation requiring contracts for supplies and services in any government department to be made by advertising requests for proposals, allowing sufficient time for the submission of bids, and making an award to the lowest responsive bidder. Congress also enacted legislation to discourage fraud by supply officers and others considered influential in connection with contracts, contractors, inspectors, and the quartermasters, to bring them under restrictions and penalties set forth in the law.

Post-war investigations revealed that fraudulent practices were far more prevalent than suspected and the period between the Civil War and World War I was marked by large scale reform in contracting. In 1893, the Dockery (Missouri Representative) Commission identified problems with procurement to include the lack of standard specifications, unstable prices, and duplication of functions. In 1894, Congress created the Board of Awards for the review of all agency-purchase proposals. Several Executive Orders (EOs) followed after the Spanish American War, creating the General Supply Committee, and promulgating standard forms, a standard contract, and a standard bond. The EOs initiated the trend toward standardizing government-wide contract documents and restricting the discretion of individual contracting officers. Technological advances, such as the procurement of the first military aircraft in 1908 from Wilbur and Orville Wright by the Army Signal Corps, opened new requirements for contract management, and detailed inspections of the final product.

During the mobilization for World War I, the country abandoned the time-consuming discipline of the competitive bidding process. As the Army and Navy awarded large aircraft production contracts to an infant aircraft industry, it became increasingly clear that contract management services had to be improved. Pilots complained directly to General John Pershing that new pursuit and observation aircraft were held together with nails and screws, and that bolts would be more reliable. These complaints prompted improvements in contract management procedures. Realizing the need for a responsible inspection system to detect defects early in the manufacturing process, an aircraft inspection department was created within the Army Signal Corps,

solely concerned with the administration of military aircraft contracts. After the war, the Army Air Service established the first peacetime in-plant inspection office in June 1921, at Boeing, Seattle, Washington, with the award of a contract for 200 MB-3A aircraft. The concept was so effective that a second office was established at Douglas Aircraft, Santa Monica, California, in 1923. The war also demonstrated the value of centralized control of procurement. The National Defense Act of 1920 gave the Quartermaster General responsibility for procuring all supplies of standard manufacture and all supplies common to two or more branches within the Army, a concept that is currently manifested as the Defense Logistics Agency.

The Navy Aviation Act and the Army Air Corps Act of 1926 mandated that aircraft be bought competitively to stimulate a fledging aviation industry. This Act became the cornerstone of a new procurement policy for aircraft design and acquisition. The law also established a special branch within the Air Corps to supervise the inspection activities of three procurement district offices that were to perform both technical supervision and the management of contracts. In June 1934, in response to excessive profits by Navy contractors, Congress passed the Vinson-Trammel Act that limited profits on specified types of government contracts and required Navy contractors and subcontractors for vessels and aircraft to open their plants and books for inspection and audit.

At the onset of preparing for what became World War II, officials soon realized that peacetime procurement practices would not suffice. Military contract management was a relatively simple operation applied through a small network of field organizations until May 1940. Then President Franklin Roosevelt called for the aircraft industry to rapidly expand production to 50,000 aircraft per year. On December 18, 1941, in response to the attack on Pearl Harbor, Congress passed the War Powers Act authorizing the President to award contracts without regard to provisions of the law. This sweeping authority was delegated to the Secretaries of the War and Navy Departments. In January 1942, the War Production Board assumed responsibility for directing war procurement and production and established priorities for military and civilian use of materials, supplies, and production capacity. The Board also established policies for procurement, including a requirement for negotiated contracts and prohibition against formal advertising for contracts. World War II procurement practices used the acquisition and contract management processes of negotiation, the broad use of cost and pricing analyses, and various pricing techniques including voluntary price reductions.

The expansion of wartime procurement, particularly of aircraft, also increased the size and scope of contract management activities of the Government's procurement district offices. The number of personnel assigned to the Army Air Forces procurement districts soared from under 500 in 1939 to over 27,000 in 1944. Organizationally, the number of district offices increased from three to six; however, each district office (Army

Air Force Plant Representative Offices, or AAFPROs) now had numerous plant representative offices (in major plants) and area offices (in industrial centers) assigned to it. As the war in Europe scaled down, the number of procurement districts, field offices, and plant representative offices was reduced.[3]

The U.S. Air Force inherited this contract management organizational structure when it became a separate Military Service in 1947. In May 1948, Congress passed the Armed Services Procurement Act of 1947 in an attempt to standardize purchasing methods for all Military Services and to require that contracts be formally advertised. The joint regulation that implemented the Act, the Armed Forces Procurement Regulation (AFPR) (later named the Defense Acquisition Regulation (DAR)), was issued to provide uniform acquisition procedures and policies. The regulation, with periodic revisions, became the bible of defense contracting for the next 30 years. However, it lacked adequate coverage and spawned a mass of individual Service-specific needs procurement regulations.

There was a trend in the 1950s towards the increased use of negotiated and cost reimbursement contracts, particularly those involving the acquisition of major weapons and aerospace programs. In order to curb excessive profits and reduce the high prices resulting from these contracting approaches, pressure grew to increase competition, improve source selection, and adopt contractor performance evaluation programs. Each of the Military Services reorganized its procurement operations during the 1950s and into the 1960s, moving toward centralized procurement and contract management functions – each with a separate contract management structure performing Military Service contract administration services in the field.

2. Defense Contract Management Administration services

Growing Cold War tensions and the space race in the early sixties were marked by increased defense expenditures for research and development, space exploration, and the modernization and stockpiling of conventional weapons. Correspondingly, there was an expansion in the size and sophistication of defense contracts, and programs had become far more complicated and expensive. It soon became clear that there were serious shortcomings with the existing procurement, contract management, and inspection systems in place within the Department. In reality there were several systems. The Army, the Navy including the Marine Corps, and the Air Force each had its own paperwork requirements and its own idea of what it meant to build something to military specifications. The 1960 Armed Services Procurement Regulation was triple the size of the original one, and the Service-unique procurement regulations had increased correspondingly. This diversity of contracting procedures placed a special burden on

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[3] Defense Logistics Agency-provided paper entitled "A History of Defense Contract Management", undated by Janet McDowell, Defense Logistics Agency Historian.

those defense industries that did business with multiple Military Services, such as aircraft and electronics companies.

In response to this situation, the Assistant Secretary of Defense for Installations and Logistics convened a Procurement Management Improvement Conference in Williamsburg, Virginia in February 1962 with high-level DoD and industry procurement executives, managers from NASA, and representatives from the Atomic Energy Commission, Small Business Administration, and the General Services Administration to discuss the need to improve procurement and contract administration processes. Each of these federal agencies was dealing with many of the same contractors in the defense aerospace industry. There was a clear consensus that something had to be done to improve contract management and eliminate the extensive overlap and duplication of effort among the various DoD procurement organizations. Of the 75 recommendations emerging from the conference, 39 involved issues pertaining to contract management.

Because the conference had clearly identified the need for contracting reform, Secretary Robert McNamara established Project 60 in May 1962 to develop a plan for establishing uniform field contract management functions. Project 60 had the following objectives:

- Improve the management of contracts in the field
- Provide more timely and accurate support to the buying activities and program managers
- Minimize the duplication of effort
- Decrease operating costs
- Minimize government controls over industry.

Project 60 teams soon found that the procurement process was snarled in a huge, expensive bureaucracy and mountains of paperwork and red tape. In the first half of 1962, there were 44,788 employees involved in managing slightly over $100 billion in prime contracts for NASA and DoD. The DCMA today manages over $850 billion with about 12,000 employees with a more complex set of requirements and contract administration service (CAS) functions. There were 466 different contract management organizations, and the Military Services had more than 82 different contract management offices. Some examples of duplication uncovered by the Project 60 team were the following:[4]

- The Navy had cognizance of a plant where the Army had the majority of contracts. The Air Force handled actual contract negotiations with the contractor. The Air Force and Navy performed audit functions and the Army was constantly visiting the plant for program surveillance.

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[4] Secretary of Defense Project 60 Report, June 1963, Volume 1, page 44.

- There were other services and agencies in 115 plants where the Navy had full-time contract management personnel. In two of the plants, there were four other contract management activities; in six plants, there were three others; and in 25 plants, there were two other activities. Navy strength in the 115 plants was 2,197 personnel, and the other activities had 2,363 government personnel.

- A large electronics firm reported confusion and increased costs resulting from having an Air Force security inspector visit some of the facilities in an area one day, then having a Navy inspector visit others in the same area several days later, and then having an Army inspector visit another of their plants in the same area. All of the Services' inspectors were headquartered in the same city.

The consolidation of these organizations into 13 districts under a single organization alone would save DoD approximately $11 million a year in decreased operating costs and reductions in overlapping resident personnel and government regulations. The greater savings was to be achieved in reducing government controls over industry. In just three areas of contract management services, the Project 60 teams estimated a cost avoidance of over $114 million per year.[5] One specific example was the procurement of an identical antenna from the same source. The Army antenna was unclassified, the Air Force was confidential, and the Navy was classified as secret. The items were produced on the same production line and stored in separate bins. The differences in classification alone resulted in additional unit costs of $6 for the Air Force and $14 for the Navy.[6]

The outcome of Project 60 was a series of recommendations, including the consolidation of CAS into a single agency – now the Defense Contract Management Agency. The Project 60 study team envisioned an agency of approximately 19,200 personnel operating in 13 separate districts and a headquarters staff of fewer than 600.[7] This was far less than the nearly 45,000 personnel that were then performing these same functions under the individual Service organizations. The individual Services were concerned that under a single agency they would get less responsive support for major weapons systems acquisition. They were also concerned that potential misunderstandings could possibly impact critical acquisitions and programs. The Services ultimately prevailed in retaining major portions of the contract management organizations and procedures that were particularly important for major weapons systems acquisition and support.

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[5] Ibid, page 49.

[6] Ibid, page 48.

[7] Ibid, page 63.

Secretary McNamara did, however, establish a pilot test region to consolidate contract management services as a result of Project 60 recommendations. The test region, based on the success of consolidated contract management services, was transferred to the newly established Defense Supply Agency (DSA) in 1963. In June of 1964, McNamara consolidated the contract management offices of the Military Departments and the DSA under the DSA. The resulting organization was titled the Defense Contract Administration Services (DCAS) organization and would provide common support service to DoD and NASA procurement offices. Certain plant representatives of the Army, Navy, and Air Force, situated at key contractor facilities producing major weapons systems, were not consolidated, nor were the military and construction contracts of the Army Corps of Engineers, Navy Supervisor of Shipbuilding, and Army conventional ammunition facilities.

From the mid 1960's to 1989, the DCAS consolidated regional offices from 11 to nine. By 1986, with the increase in defense spending in the 1980s, the DCAS was managing more than 407,000 prime contracts worth $262 billion. However, the Services still maintained 43 plant representative offices: 25 Air Force, 15 Navy, and 3 Army. In the 1980s, the AFPR was replaced with the Federal Acquisition Regulation (FAR) by the Office of Federal Procurement Policy; a single regulation to govern the procurement practices of all federal agencies. This continued the trend toward consolidation and provided more uniform acquisition policies and procedures.

In February of 1989, largely in response to the recommendations of the Packard Commission, the President directed the Secretary of Defense to develop a plan to further improve defense procurement processes and the management of the Pentagon. In response to this directive, Secretary of Defense Richard Cheney issued the Defense Management Report in July 1989; it recommended a number of defense reorganization and reform initiatives. One outlined a plan to further consolidate all defense contract management, except Army Ammunition Plants and Navy Supervisor of Shipyards, under a new Defense Contract Management Agency (DCMA) reporting to the newly-created Under Secretary of Defense for Acquisition. The Office of the Secretary of Defense organized a Task Force on Contract Administration with the objectives of presenting one face to industry; promoting uniform policies, and reducing costs. The five-year cost savings were projected at hundreds of millions of dollars.[8]

Defense Management Report Directive (DMRD) 916 consolidated virtually all of DoD's contract management services, estimated in the report to total about 30,000 civilian employees, under one organization; not as a separate agency, however, but as a command under the DLA – the Defense Contract Management Command (DCMC).

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[8] Joint OSD-DOD Component Defense Contract Management Agency Task Force, Defense Contract Management Agency, Implementation Plan dated September 1989 under DMRD 916.

- In June 1990, the Military Services transferred 44 Plant Representative offices (27 Air Force, 13 Navy, 3 Army), 5,400 personnel, 100,000 contracts, and $400 billion in contract value to DCMC.

- At the stand-up of DCMC, the command consisted of about 26,000 civilian personnel, with four headquarters, 12 intermediate headquarters offices, 144 contract administration offices, located in over 1200 locations managing over $180 billion in un-liquidated obligations (ULOs) performed by 25,000 contractors.[9]

C. Functions, customers, products, and resources

The DCMA charter is outlined in DoD Directive 5105.64, September 27, 2000 Defense Contract Management Agency (DCMA). The Deputy Secretary of Defense designated the DCMA as a combat support agency and subject to the requirements of Section 193, Title 10 U.S.C. As a combat support agency, Section 193 assigns oversight of the Agency to the Chairman of the Joint Chiefs of Staff for the readiness and responsiveness of the Agency to support operating forces in the event of war or threat to national security. The Chairman is to review the Agency's plans to support the operating forces, provide for their participation in exercises, assess their performance and, in consultation with the Director of each combat support agency, develop a uniform system for readiness reporting.

The DCMA manages 325,000 contracts, including all Acquisition Category (ACAT) 1 and 2 major weapons systems programs. These contracts, valued at $850 billion, are performed by 23,000 contractors. The Agency also is responsible for the acceptance of approximately 1100/aircraft per year from industry, CAS oversight for over $92 billion in government-owned property, and administration of approximately $12 billion in annual progress payments for in-process work performed by DoD contractors.

The DCMA budget authority is approximately $1.1 billion with approximately $100 million more in reimbursable funding for CAS services to NASA, FMS, and other government agencies. The DCMA is also the executive agent for program management of the Standard Procurement System (SPS). SPS is a program to modernize and further standardize the writing and administration of DoD contracts at all procurement offices. It has a parallel goal of contributing to a streamlined end-to-end DoD procurement process that seamlessly integrates contract administration and currently error-prone billing and payment systems.

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[9] Director of DCMA Briefing entitled "Defense Contract Management Agency" and an information paper given to IDA in February 2001.

1. Resources – budget and personnel

The DCMA resource and budget information and estimated resources (FY 2000 to FY 2007) is shown on Table 1 below in current (x 1000) dollars. The DCMA has programmed a reduction of an additional 1437 full-time equivalent (FTE) spaces, an additional 11.5 percent over the FY 00 to FY 07 period.

Table 1. DCMA Budget and Personnel Trends

	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07
O&M	950,066	928,181	941,736	967,196	994,148	1,011,383	1,032,650	1,057,233
PDW	4,041	24,575	31,313	18,571	10,410	7,956	12,506	15,275
RDT&E	-	17,433	12,216	9,471	7,171	9,987	9,285	7,662
Reimbursable	162,628	131,369	126,375	121,855	118,215	116,465	108,939	102,446
Total ($000)	1,116,735	1,101,668	1,111,640	1,117,093	1,129,944	1,145,791	1,163,380	1,182,616
FTE's	12,544	12,014	11,683	11,589	11,501	11,373	11,250	11,017

2. Products and customers

DCMA performs a full range of contract management and contract administration services as required by the Federal Acquisition Regulations (FAR) and the DoD FAR supplement (DFAR). The DCMA functional operations are broken down into four key business areas that encompass over 60 FAR functions and over 150 individual business processes performed by the DCMA:

Basic Contract Administration Services – routine contract administration services outlined in the FAR/DFAR performed on most contracts: contract receipt, review and post award; pricing and contract modifications, contract terminations, proposal analysis, authorizing and accepting shipments, property management and plant clearance, contract delivery surveillance, quality, cost and schedule, delivery services, etc.

Pre Contract Activities – services performed before a contract is awarded, such as pre-award surveys to assess contractor capabilities, small business subcontracting business opportunities, and industrial preparedness assessments.

Above-and-Beyond Services – a higher level of contract administration services performed in response to a customer request; e.g., mandatory product audits, contingency CAS.

Contractor Business Systems Reviews – Major business system reviews performed on a contractor's management systems; e.g., financial, procurement, configuration quality, and subcontractor management systems as required in the FAR/DFAR.

The DCMA breaks down unit cost for performing the CAS functions within these four areas. Contract administration process costs are collected through the Agency's Performance Labor Accounting System (PLAS) from all levels of the Agency. Table 2

provides a summary of labor distribution for the fours areas of CAS, and agency service support and organizational (management) support. The basic CAS functions are broken out by the type of contracts that they are performed on, as shown below:

- supply and supply-related contracts
- systems acquisition contracts
- R&D contracts
- service contracts
- facility and maintenance contracts
- other types of contracts.

The customer base for DCMA services is diverse. Public Law and Federal Acquisition Regulations mandate most of the CAS functions performed by the Agency. Many are performed at the specific request of the Service's program acquisition offices, DoD inventory control points, and other buying activities. The DCMA's fundamental focus in carrying out its mission is to ensure that the interests of the Department and the government are achieved and that public funds are not at inappropriate risk. Table 3 provides a summary of CAS functions performed by contract types and the major customers.

D. Interview results

No one interviewed questioned, nor did any of the reports we reviewed question, the basic DCMA mission or the need to provide contract administration services to ensure contractors meet contractual requirements for cost, schedule, and technical performance and protect taxpayers' interests. No one suggested disestablishing DCMA and returning responsibility for contract administration services to the Services and other DoD procurement activities. Indeed, since the early studies on contact administration, the major organizational issue has been the extent to which contract administration should be consolidated under one agency.

Secretary McNamara decided to consolidate a majority of CAS functions in 1965[10] under the newly formed Defense Supply Agency as result of a joint OSD/military service study[11] recommending the consolidation of Service CAS functions under a

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[10] In 1965, the Department consolidated most of the contract administration activities of the Military Services to avoid duplication of effort and to provide uniform procedures for administering contracts. DoD established the Defense Contract Administration Services (DCAS) within the DSA to manage consolidated functions, with a savings of approximately 2,000 fewer positions than required by the Military Departments. The Military Departments retained CAS functions for contracts and the plants producing major weapons systems.

[11] Secretary of Defense Project 60, June 1963.

DCMA

contract administration services agency. Subsequent studies[12] reaffirmed the need for and/or the consolidation of all CAS services under one agency.

Table 2. DCMA Labor Distribution by Functional Unit (FY 2000)

Function	Percent performed	Funding Mechanism	Rationale	Performer	Customers
Basic Contract Administration Services (CAS)	61.72	O&M	Common CAS functions	Inherently civilian governmental	Service SAEs, PEOs & PMs, DoD Inv. Control Points (ICP), OSD, and the JCS
Service Support	21.84	O&M	Expenses directly tied to CAS processes and services but not to a specific CAS function	Inherently civilian governmental	DCMA Indirect costs
Organizational Support	8.37	O&M	Agency headquarters activity	Inherently civilian governmental	DCMA
Systems Review	3.49	O&M	CAS	Inherently civilian governmental	OSD/Congress SAEs and Service's acquisition activities
Reimbursable Contract Administration Services	2.86	Reimbursable	CAS	Inherently civilian governmental	NASA and Foreign Governments
Pre Contract Services	1.20	O&M	CAS	Inherently civilian governmental	Service PMs, SAE and PEOs, ICPs, OSD and Congress
Contingency Contract Administration Services	0.52	O&M	Requested CAS support	Inherently civilian governmental	PMs, ICPs, OSD, JCS, Unified Combatant Commands

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[12] Report to the Secretary, Defense Agency Review, Theodore Antonelli, (MG USA, Ret.), March 1979; Appendix G, DLA, page G4, OSD Report; Reassessment of Defense Agencies and DoD Field Activities, October 1987 in response to Goldwater-Nichols DoD Reorganization Act of 1986 (PL 99-433); Joint OSD-DoD Component DCMC Task Force, Defense Contract Management Agency Implementation Plan in response to DMRD 916.

Table 3. DCMA Basic CAS Mission and Functions by Contract Type (FY 2000)

CAS Function	Percent Performed	Price Mechanism	Rationale	Performer	Customers
Basic CAS functions by contract type		Mostly Appropriated O&M	Mandated by law and the FAR		
Supply and supply-related contracts	42.8	O&M	Common CAS	Inherently civilian governmental	Service SAEs, PEOs & PMs, DoD Inv. Control Points (ICP), OSD, and the JCS
Systems Acquisition and R&D	20.1	O&M	Common CAS	Inherently civilian governmental	Service SAEs, PEOs & PMs,
Subcontracts and Delegations	9.7	O&M	Common CAS	Inherently civilian governmental	Service SAEs, PEOs & PMs, & other DCMA CMO's
Maintenance & Facilities	7.8	O&M	Common CAS	Inherently civilian governmental	Service SAEs, PEOs & PMs, ICPs & OSD
Services	4.6	O&M	Common CAS	Inherently civilian governmental	Service SAEs, PEOs & PMs, DoD Inv. Control Points (ICP), OSD, and the JCS
Non Specific or multiple kinds of CAS	15.1	O&M	Common CAS	Inherently civilian governmental	Service SAEs, PEOs & PMs, DoD Inv. Control Points (ICP), OSD, and the JCS

We heard comments from one senior Service staff member in the logistics community who questioned the need for DCMA to be designated as a combat support agency, stating the Services had adequate capabilities and resources to perform these functions. Review of the Unified Combatant Commands' last set of inputs to the JCS Chairman's FY 2000 Combat Support Agency Review indicated a strong support for DLA Contingency Support Teams (DCSTs). DCMA participated satisfactorily in a number of joint exercises and ongoing operations. DCMA's support teams are tailored to meet specific Combatant Command requirements and included personnel from what is now the Defense Contract Management Agency.

The IDA study team sent questionnaires to six of the combatants most likely to interface with DCMA on a continuing basis: USCENTCOM, USEUCOM, USJFCOM, USPACOM, USSOCOM, and USTRANSCOM. We requested their views on DCMA's mission and its performance. Although several of the commands could not respond specifically to DCMA since they had not had sufficient experience with the newly formed Agency, other commands expressed their support of the Agency's mission and their performance in support of ongoing operations and recent exercises. There will be a continuing need for Contingency Contract Administration Services (CCAS) as we increasingly rely on coalition support arrangements, commercial sources of supply, contractor and logistic support within the area of operations, and management of logistic contractor and logistic support arrangements. The level of such needs is hard to predict, due both to the inherent uncertainties in predicting contingencies and to potential changes in the "routine" presence of U.S. armed forces oversees.

Interviews with senior Service procurement executives and other acquisition reform specialists indicate that they are generally pleased with DCMA performance and find the Agency to be increasingly responsive to program managers. In general, DCMA plant representatives have very good relations with the contractors and their personnel. DCMA efforts to institute a risk management approach, which tailors the degree of government surveillance in proportion to the demonstrated quality performance and the contractor's ability to meet schedule and technical performance, was singled out as working very well. Also cited as valuable were the Corporate Management Councils (CMCs), which provide a routine venue for government/contractor discussions of important issues that transcend individual contracts.

Interviewees also commented on DoD's Single Process Initiative (SPI), which is intended to ensure that each contractor's facility operates under a single set of rules and procedures for all of its government customers. Concern was expressed regarding the need to revitalize the initiative because its implementation has become somewhat bureaucratic and cumbersome. The DCMA role is shifting from almost exclusively contract-to-contract, program-to-program CAS, to include acting as the DoD representative in looking at the overall health of companies, and leading plant-wide government initiatives such as SPI. DCMA representatives could also help more in identifying onerous procurement practices and contract provisions that may be causing needless problems and additional costs.

Although DCMA was noted at a recent Defense Science Board study as being the "Best of DoD Agencies," there was concern by some interviewees that DCMA was still not willing to fully back away from unnecessarily disruptive, intrusive in-plant inspections of contractors' processes in the full spirit of acquisition reform. As an example, there was too much demand for pricing details in commercial situations where there is clearly a market that sets prices fairly. Another concern was the perspective that

DCMA is spread too thin and having difficulty in responding to OSD/Service "what happened" queries, when some product turns out to have been shipped in a defective state. Other issues expressed were related to the migration to the Single Procurement System (SPS) that is intended to institute a coherent and uniform procurement (end-to-end process) system. In particular, there was a perception among some that DCMA was allowing the Services to add too many "tailored applications." A related concern was the extent that the Defense Procurement Payment system – the successor to Mechanization of Contract Administration Services (MOCAS) – administration and payment system will actually interface with the SPS.[13] There was some speculation that DCMA may not have the talent and resources (or the authority over related process) to bring all of this together.

E. Assessments and issues

Two additional concerns emerged from our research and interviews: 1) alternative sources of funding to finance DCMA, such as activity-based costing and charging for CAS utilizing the Defense Working Capital Fund (DWCF) concept; and 2) the identification of nearly all DCMA positions as inherently governmental, with the exception of administrative and some information technology positions.

1. Defense Contract Management Agency (Defense Contract Management Command) alternate financing

Program Decision Memorandum (PDM) II, dated 15 October 1996, directed a study to evaluate alternative sources for funding for DCMC to determine the most appropriate means of resourcing DCMC requirements with the objective of improving service and reducing incurred costs. As a result of the PDM II tasking, a concept of operations (CONOPS) was developed and signed out by Deputy Secretary of Defense John P. White. The CONOPS established an overall approach for DCMC to develop, test, and deploy a unit cost management system. PDM II also tasked the USD (AT&L) to lead a study team to evaluate alternative funding strategies to ensure that current and future DCMC missions are financed in the most effective manner. A concern was that since DCMC is the single centralized source of CAS for the Department and has been traditionally financed to perform a diverse array of CAS missions with O&M funds, customers have been able to add or transfer CAS-related missions to DCMC. Often these

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[13] About 11 legacy procurement systems operated by the Services and the DLA feed into MOCAS. They comprised logistics, base procurement, and acquisition systems feeding the finance standard systems regarding payment to contractors for services and goods that were shipped and received by the government. Under the new system, the SPS will tie all of these acquisition and procurement activities and CAS with DFAS's standard finance and accounting systems. The DFAs interface is through the DFAS Corporate database and Corporate Warehouse (DCD/DCW) systems that will input the DFAs Defense Procurement Payment System (DPPS) and the DFAS Standard Disbursing System (DSDS). This will create a uniform and coherent end-to-end process for the payment of goods and services received by the Services and the DLA logistics and acquisition activities and base procurement offices.

new tasks/missions had been transferred with proper resources or accountability of their transfer. The PDM acknowledged this as a problem, which could be addressed by changing the way DCMC manages resources and obtains financing for their operations.

The study team did not recommend a DWCF solution for several reasons. The primary problem is the difficulty in clearly defining the customer for many of the CAS products and services. DCMC's customers are varied and span all activities involved in defense acquisition. Also, for an effective DWCF solution, the customer should be able to influence supply by changing demand patterns. Because Public Law and Federal Regulation drive so much of the DCMC CAS product mix, there is little opportunity for the customer to have a significant impact. Also, the team did not believe that this option would have the desired impact of increased customer input on priorities, performance standards, and long range plans. The team was concerned that a DWCF approach could have significant implementation costs for both DCMC and its customers, in terms of developing of an approved accounting system and establishing billing procedures and systems.

The team did recommend a customer-directed O&M approach and establishing a Board of Directors (BOD) composed of senior functional experts representing OSD and the Services. The BOD would provide a venue through which new functions could be approved and low-value functions could be removed. Involving the Services up front in discussions of mission priorities would mitigate problems associated with unfunded mission transfers and quantify the resources required to accomplish additional approved missions. DCMC would be accountable to customers and key stakeholders represented on the BOD for the overall efficiency and effectiveness of meeting customer needs.

Interviews with senior acquisition executives did not uncover any significant support for revisiting the reimbursable services issue. Indeed, the IDA study team found no convincing rationale that would support shifting the bulk of DCMA's CAS services to a reimbursable funding mechanism. However, there is a desire on the part of some in the DoD acquisition community for DCMA to be more "proactive" in pursuing DoD/industry-wide industrial base and acquisition reform initiatives, such as SPI. The current method of funding limits DCMA's capability to take on additional workloads without some alternative methods of funding. Additional direct appropriations for such tasks would be more appropriate than establishing a new funding mechanism.

2. Preponderance of inherently civilian governmental positions within the Agency

In October 1998, the President signed into law the "Federal Activities Inventory Reform (FAIR) Act of 1998" (PL 105-270) requiring all executive agencies to submit to Congress an annual listing or inventory of activities that are not inherently governmental, and to make this inventory available to the public. The FAIR Act defines an activity as

inherently governmental when it is so intimately related to the public interest as to mandate performance by Federal employees. Those positions not coded as inherently governmental are potential candidates for competition under the provisions of OMB Circular A-76. The last submission available for the FAIR inventory is for the end of 1999 when DCMA was still a subordinate command (DCMC) under the DLA. At that time, the DCMC had 13,260 personnel assigned. DCMC had declared 10,813 positions oth this total to be inherently governmental. DCMC excluded an additional 119 positions, leaving a total of 2328 positions eligible for competition; mostly administrative, clerical, and ADP support.

A preponderance of the positions identified as inherently governmental were coded as contracting personnel. Within this category, many would be located at the District and Contract Management Offices conducting day-to-day CAS support activities. Contracting officers and procurement specialists, however, would not fill all of the positions identified as inherently governmental. They would also be filled by other specialties such as quality control, industrial specialist, program integration, engineers, transportation specialist, auditors, financial specialist, and other specialized duties. These could include major system program support, quality audits, cost proposal analysis, management system analysis, small business, industrial surveys, surveillance, and other CAS functions in support of the DCMC contracting officers and DoD procurement activities. It is questionable that some of the activities should be coded as inherently governmental since most of these activities are only in support of government contracting officers and do not necessarily meet the criteria for inherently governmental, as defined in OMB Policy Letter 92-1, September 23, 1992

Basic CAS functions can involve many different process or service sets that may legally be performed by contractors (providing the government's interests are served) listed and discussed below. Some examples of CAS functions and services that DCMA categorized as "inherently governmental" but for which contractor support may be appropriately considered include the following:

- Contract delivery surveillance
- Transportation/shipment processing
- Proposal analysis
- Contractor performance management
- Value engineering evaluations
- Pre-award surveys
- Industrial analysis
- Environmental assessments
- Program integration (providing coordinated contract management on a major program, including CAS at subcontractors and other key suppliers)

- Property management and plant clearance.

OMB Policy Letter 92-1, Subject: Inherently Governmental Functions, September 23 1992, established Executive Branch policy relating to service contracting and inherently governmental functions. Appendix B of the policy letter provides a list of services and actions that are not considered inherently governmental functions provided the agencies are fully aware of the terms of the contract, contractor performance, and contract administration to ensure that appropriate agency control is preserved. The illustrative listing provides several examples of functions that are not considered inherently governmental and that appear similar to those performed by DCMC personnel doing basic CAS functions.

- Services involving or relating to budget preparation, including workload modeling, fact finding, efficiency studies, and -cost analysis (proposal cost and price analysis)
- Services that involve or relate to:
  - Analysis, feasibility studies, and strategy options to be used by Agency personnel in developing policy
  - Evaluation of another contractors performance
  - Technical evaluation of contractor proposals
- Participating as technical advisors to a source selection board
- Assisting in contract management
- Providing inspection services.

Interviews with senior procurement executives did uncover some reservations regarding the use of contractor personnel to perform DCMA's in-plant activities. Contractors are highly protective of their intellectual property and are frequently reluctant to let even their own sub-contractors get very close to their processes. The government presence is often grudgingly accepted; private contractors inspecting other contractors may be too much to ask. The absence of any evidence of Agency efforts to develop a test approach and develop potential A-76 cases may be an issue.

The area that the IDA team believes most worth exploring for potential A-76 adjudication is Government Property Control. This is a function that frequently receives much lower priority than do the day-to-day functions more closely associated with major program assessments, deliveries, and payments. The team believes that DCMA should conduct a thorough assessment of the potential for removing the Property Control function from the inherently governmental category, thereby making it eligible for potential outsourcing via the A-76 process.

II. PERFORMANCE

A. Metrics

1. Performance contracts

The DCMA performance contract with OSD PA&E for FY 2001 to FY 2005 promises to provide the services described in the performance agreement within the POM fiscal guidance levels outlined in Table 1. DCMC has only three performance metrics with the following deliverables:

- Cost management – DCMA will reduce through improvements in productivity cost per unit of output for contract management services (in base year FY 1998 dollars) by three percent annually during the FY 2001 to FY 2005 period from the FY 1998 baseline.

    - DCMA has instituted a Unit Cost and Activity-Based Management System. Contract management services represent all of the "service sets" routinely performed on contracts administered by DCMA. Since personnel drive most of the cost of CAS services – reducing the cost of performing contract management services means doing more with fewer personnel. DCMC is forecasting a reduction of personnel of nearly 11.5 percent over the FY 2001 to FY 2007 time period.

    - The DCMA performance contract assumes a stable contract workload and no major changes in the delegations of authority from the Military Services.

- Customer satisfaction – DCMA measures this parameter through sampling a group of customers listed in the Agency's Automated Metrics System Database. The database includes over 450 ACAT I, II, and III programs.

    - DCMA District offices conduct a minimum of 50 phone interviews per month requesting customers to rate their satisfaction with Agency support using a six-point Likert scale (1 = very dissatisfied and 6 = very satisfied)

    - The customer satisfaction target is a 90 percent customer satisfaction level. (Percentage is the summation of responses with a rating of 5 or 6 in overall satisfaction divided by the total number of responses)

    - Problems identified in the surveys are evaluated for corrective actions.

- Contract Closeout[14] – DCMC is to improve the percentage of contracts closed out in accordance with FAR/DFAR goals according to the schedule shown in Table 4.

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[14] The contract closeout in the absence of litigation, ongoing fraud investigations, or a termination action process involves the review of contract funds, plant and property clearance, contract audit, final invoice, closing statements, payment notification, and contract administration record completions. Timely contract closeouts de-obligate excess funds for possible use elsewhere, identify the need for additional funds, minimize administrative costs for all contractual parties, and allow them to focus on current and

Table 4. Contract Closeout Schedule Performance Contract Commitment

	FY 01	FY 02	FY 03	FY 04	FY 05
% Contracts closed out	87	88	89	90	91

2. OSD Defense Agency and DoD field activity biennial review

The most recent Biennial Review of Defense Agencies and DoD Field Activities was conducted in FY 1999.[15] DCMA was created on March 27, 2000 and was not covered as a separate agency in this last review. As a major business line of operation, however, the DCMC was covered in the review of DLA. The FY 1999 Biennial Review was coordinated with the Joint Staff. [16] The CSAR's, performance contracts and the OSD DA&M Biennial Reviews are intended to assess how well the Defense Agencies and DoD Field Activities carry out their assigned missions and support U.S. military forces.

The 1999 Biennial Review Business Line assessment for DLA's contract administration services (DCMC/DCMA) business line had an overall satisfaction score of 86 percent and rated among the highest satisfaction scores of all DoD agencies' and field activities' business line ratings. There were four sub categories rated: (1) satisfaction with the business line – 90 percent; (2) responsiveness to customers – 86 percent; (3) satisfaction with specific products and services – 90 percent; and (4) coordination with customers – 76 percent. Unfortunately the response on this business line was only 21 surveys – far too low to provide any comfortable level of confidence. A second concern is that the subcategories of ratings, although important indicators, don't ensure that the objectives outlined in Section 192 (c) would be met. This information is useful, however, and should be part of any over all OSD assessment process of Agency performance and included in the Agency's Performance Contract.

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future requirements. Delays in closeout delay final payments and are a chronic source of industry complaints.

[15] Under section 192: The Secretary of Defense shall establish procedures to ensure that there is full and effective review of the program recommendations and budget proposals of each Defense Agency and Department of Defense Field Activity: (c) Periodic Review. (1) Periodically (and not less often than every two years), the Secretary of Defense shall review the services and supplies provided by each Defense Agency and Department of Defense Field Activity to ensure that (A) there is a continuing need for each such agency and activity; and (B) the provision of those services and supplies by each such agency and activity, rather than by the military departments, is a more effective, economical, or efficient manner of providing those services and supplies or of meeting the requirements for combat readiness of the armed forces.

[16] J-8 is responsible for the Combat Support Agency Reviews (CSARs) on behalf of the Chairman's Section 193 Title 10 USC responsibilities to assess the performance of combat support agencies and the staff of the Director, PA&E, OSD, who manages the Defense Management Council's Defense Agency and DoD Field Activity performance-contract process.

DCMA is designated as a combat support agency and is subject to the CSAR process as required by Section 193, Title 10 of the USC. The FY 2000 CSAR by the Joint Staff did not address the DCMA as a separate agency since the review was conducted during the period of establishing DCMA as an agency. However, as outlined earlier in this report, the Unified Commands indicated a strong support of the DLA's Contingency Support Teams elements, which include CAS personnel. Furthermore, our review of key Combatant Commands' comments on the appropriateness and responsiveness of DCMA in supporting the Command's mission found that the responding Commands expressed their support of the Agency's mission and their performance in support of ongoing operations and recent exercises.

The IDA Team did not have the resources to estimate the amount of work being performed in direct support of deployed forces that clearly conforms to the definition of "combat support," and then compare it to the much larger workload associated with routine CONUS CAS. Such an evaluation should be performed to ascertain the extent to which removing the bulk of DCMA from the "Combat Support Agency" category could facilitate further process improvements and/or overall efficiencies. Such changes might include increased "civilianization" and specialization of DCMA management positions.

3. DCMA Integrated Management System – performance goals and strategic business planning

The DCMA Integrated Management System is the Agency's strategic planning process (planning, programming, resourcing, and budgeting) and the annual performance plan set for each of the contract management offices is the Agency's vehicle for managing performance of its contract management offices and their resources, (personnel and funding). The performance plan is developed in support of the Agency's strategic goals as outlined in Section 1 of this report. The processes outlined in the performance plan to achieve these objectives are broken down into service sets with specific objectives and metrics designed to achieve each of the three strategic goals. As an example, the service sets for achieving Goal 1 – Deliver Great Customer Service, is broken down into seven unique service sets, each with an objective and a performance goal as follows:

- Pre-contractual advice services –with performance goals for pre-award timeliness and setting small business goals
- Major program services – with performance goals of achieving program objectives for cost, overruns, and schedule variances
- Product performance services – with performance goals to assure product quality and improve the capability of suppliers
- Delivery services – with a performance goal of ensuring timely delivery of products, reducing outstanding delinquencies, etc.

- Pricing and modification services – with a performance goal of ensuring to reducing negotiation cycle times, pricing rate coverage, un-definitized contract rate actions, etc.

- Payment and financial management services – with a performance goal to provide payment and financial management services that promote efficient and effective operations

- Contract closeout services – with performance goals of timeliness of contract close out services, plant clearance cases, overage contracts, contracts past final delivery dates, etc.

Each of these "service set" activities/processes is tied to the Agency's unit cost and activity-based management system, which links performance to the cost of providing these services. A similar breakdown of service set performance goals tied to the other Agency strategic goals leads the way to efficient and effective business processes.

The DCMA performance plan is a highly structured, integrated management process that formally ties strategic agency objectives into key functional business areas and performance goals, and provides the capability to track costs against the specific service sets and performers necessary to achieve the Agency mission and strategic goals.

B. Interview results

We heard no criticisms of the current performance of the Agency per se that relate directly to the formal internal performance goals. This may be due in part to the newness of this set of metrics. A common anecdotal complaint is slowness in contract closeouts; yet, in the aggregate, DCMA has been a few percentage points ahead of its increasingly stringent target close-out goal in both 99 and 00. As noted earlier, problems in this area principally relate to payments – a function not completely within DCMA's purview.

Based on recent reviews and responses received from the Combatant Commands and Service representatives, customer satisfaction with DCMA is high. Most felt that the DCMA missions and functions were appropriate and supported their requirements. There was also no criticism[17] of the performance metrics contained in the three current Agency performance assessment vehicles: the OSD Director Program Analysis & Evaluation Performance Contracts; the Joint Chiefs of Staff, Directorate for Force Structure, Resources and Assessment's Combat Support Agency Review (CSAR); and the OSD Director for Administration and Management Defense Agency and DoD Field Activity Biennial Reviews.

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[17] Some stated that the performance contracts did little to encourage agency behavior in improving service, customer satisfaction or reducing cost

C. Assessment and issues

We did not hear any general complaints about DCMA expenditures competing with the Military Services or their needs and DCMA being funded at the expense of Service programs because of the lack of review and inadequate OSD oversight. Also, there was a surprising lack of any concern regarding the need for better incentives for internal management or performance standards for DCMA.

Clearly there is a need for the Chairman's CSAR to ensure DCMA's responsiveness and readiness to support operating forces in the event of war or threat to national security. The CSAR process is highly structured, reviews all Agency functions that are critical to the Unified Combatant Commands, collects a wide universe of inputs, and builds on past assessments with follow-up actions to improve Agency readiness and responsiveness. Moreover, the CSAR teams (CSART) work with the Agency to identify customers, services, supplies, and products used to ensure a thorough and comprehensive review for each functional area. Responsibility is assigned for all recommended actions, and milestones are tracked on a continuing basis. Each successive CSAR reviews progress previously identified issues or deficiencies until their eventual remediation. Nevertheless, and as noted earlier, the IDA Team is concerned that the designation as a "combat support agency" and the resulting focus on the CSAR results may not be dealing adequately with the bulk of DCMA's non-combat support activities.

There is a significant variance in the performance contract and the Biennial Review conducted by OSD. The broad surveys that sample a few users of the agency's product cannot do much more than indicate that there may be a problem with an agency's performance and customer satisfaction. Such limited samples make it difficult to determine whether reported problems are isolated or systemic. More generally, although the objective of conducting these biennial reviews is understandable, it isn't clear what is being done with these reports and who, if anyone, is using them. It doesn't appear that these OSD-level performance metrics are being used to change behavior, make the agency more responsive, or provide supplies and services more efficiently, economically, or effectively. This information is useful and should be expanded on to focus more on how to measure the effectiveness and responsiveness of an agency to support their customer. Possibly these reviews could be merged into the Performance Contracts – e.g., validate customer satisfaction of each of the major business areas and the appropriateness of the agency mission.

Achieving the overall objectives of the performance contracts is important both in terms of changing agency behavior and/or improving their responsiveness and efficiency in supporting the Department and operating forces. The absence of any clear linkage between the performance metrics in the OSD performance contract and those of the DCMA performance plan and lack of concrete involvement on this specific topic with the Under Secretary of Defense for AT&L (the PSA) and other OSD/DoD component

stakeholders is a serious process problem. PA&E has a program and budget interest in assuring that DCMA is providing the required services efficiently, and is responsive to the Departments needs. The Under Secretary of Defense for Acquisition, Technology and Logistics and the Under Secretary's subordinate offices, the Director of Procurement, and Defense Acquisition Reform, have similar interests and an oversight responsibility. As the Department's single face to industry, DCMA is in the vanguard of acquisition and contracting reforms, e.g., identifying onerous paperwork and specification requirements; establishing of best business practices, uniform contracting and bidding procedures; and others that transcend individual contracts and programs. How well they perform that mission translates in potential savings of millions of dollars for the Department's acquisition offices.

Other DoD stakeholders--the SAEs, PEOs, PMs, materiel buying commands, Service and base procurement offices, and the DLA--also have an interest in how well DCMA performs its mission in identifying risk and industrial capabilities and assuring the contractors will meet contractual requirements for quality, schedule, and costs.

The capability of DCMA to meet its mission objectives is highly dependent on its funding and on how effectively it employs its personnel. A performance contract should provide a good link between agency performance in meeting its strategic goals and its customer needs and the budget necessary to perform its mission. The DCMA has a performance plan in place that links performance objectives to achieving the agency's mission through its unit- and activity-based cost management system and the agency integrated management system process (e.g., planning, programming, resourcing and budgeting actions).

Performance goals of the Agency and the cost to conduct its mission are clearly linked. The major cost of DCMA is the cost of its personnel, and how effective the Agency is in performing its assigned functions and missions is directly dependent on how well that workforce is employed in its field organization and their capability to conduct basic CAS operations in support of their customers. The performance contract should be more closely aligned with the Agency's performance plan and its strategic goals. None of the DCMA performance contract metrics ties directly into the overall mission of DCMA and their processes (service sets) for accomplishing their mission. The contract closeout is an element under the performance plan, but is only a small part of what the DCMA does in contract management. The Agency's internal performance plan should track the GPRA goals and the OSD performance contract should track the Agency performance plan. The performance contracts should move closer to the Section 192 (c), Title 10 USC requirements in determining if there is a need for the Agency, and whether it is providing the services more efficiently, economically, and effectively than another alternative. The efforts of the OSD DA&M and OSD PA&E should also complement each other in meeting the above requirement.

III. MANAGEMENT

A. Reporting structure

The Director of DCMA is a flag-rank military officer. The Deputy Director is a career member of the Senior Executive Service (SES); all other key management positions are filled mostly with SES and senior career civil servants and senior military officers. DCMA is organized with Directorates aligned to functional responsibility, with headquarters support and special staff offices and heads of primary field activities also reporting directly to the Director. Each field activity has performance contracts aligned with the major CAS mission areas, with metrics linked to the Agency's strategic plans and unit- and activity-based cost systems. The organization structure is shown in Figure 1.

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                         │     Director     │
                         │ Deputy Director  │
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│Chief  │ │Reserve │ │General │ │Small   │ │Special │ │Standard    │
│Special│ │Affairs │ │Counsel │ │Business│ │Programs│ │Procurement │
│Staff  │ │        │ │        │ │        │ │        │ │System PM   │
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┌───────────┐ ┌──────────┐        ┌──────────┐ ┌──────────┐
│Contract   │ │Financial&│        │Program   │ │Human     │
│Management │ │Business  │        │Integration│ │Resources │
│Operations │ │Operations│        │          │ │          │
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     ┌────────────────────┐      ┌──────────────────┐
     │Information Technology│    │Aircraft Operations│
     └────────────────────┘      └──────────────────┘

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│Defense       │    │Defense       │    │Defense             │
│Contract      │    │Contract      │    │Contract            │
│Management    │    │Management    │    │Management District │
│District East │    │District West │    │International        │
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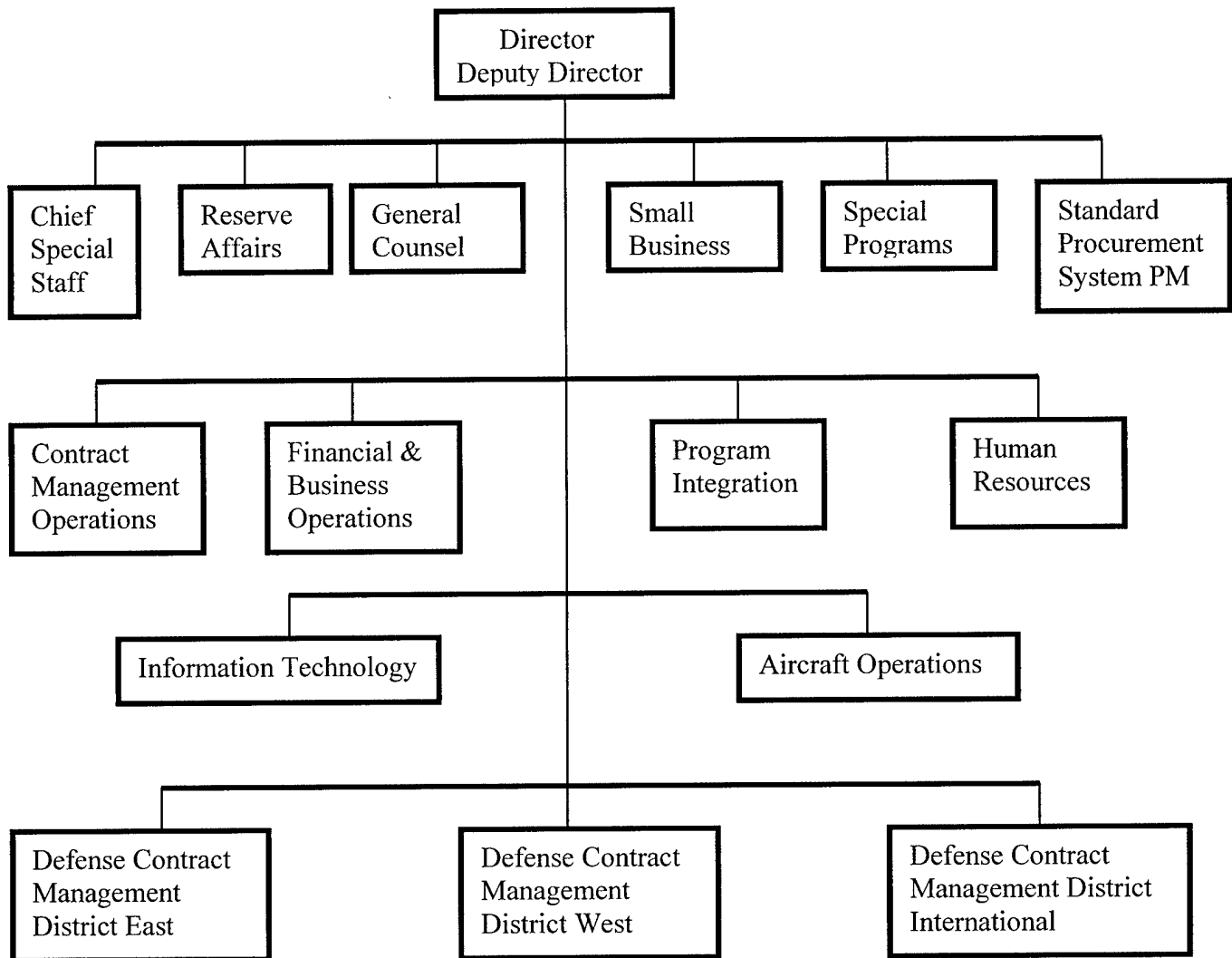
Figure 1. Defense Contract Management Agency (DCMA) Organization

B. External guidance and oversight:

The OSD Principal Staff Assistant (PSA) for DCMA is the Under Secretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)). Written guidance is in the Charter DoD Directive 5105.64, "Defense Contract Management Agency", September 27, 2000. Other governing guidance includes the Federal Acquisition Regulation (FAR) and the Defense Federal Acquisition Regulation (DFAR) supplement governing contract administration services. The DCMA also routinely receives guidance and direction from the Principal Deputy Under Secretary of Defense for Acquisition, Technology and Logistics and guidance on acquisition reform and contracting policy from the Deputy Under Secretary Defense for Acquisition Reform and the Director Defense Procurement. The Agency works closely with other offices within the USD (AT&L) on specific issues involving organizations responsible for areas such as major weapons system programs, small business, special programs, research and engineering, environment, installations, international programs, logistics, and industrial base analysis.

The DCMA has established a Board of Directors representing customers and oversight offices to provide for better accountability for results. The Board was the result of recommendations under PDM II, Alternative Financing for DCMC that was discussed in Section II and directed by the Deputy Secretary of Defense. The review commissioned by PDM II concluded that, although funding DCMC through a reimbursable mechanism was not practical, DCMC should adopt a Customer Directed O&M Concept. The DCMC should be accountable to its principal customers, at the headquarters level as well as at the plant representative level. The National Performance Review (NPR), the Government Performance and Results Act (GPRA), the Commissions on Roles and Missions (CORM), and other government and defense management initiatives recognized that agencies should use customer inputs for strategic guidance. A common thread in these reports could be addressed through a Board of Directors composed of key customers and stakeholders. DCMC would be accountable to this Board for the overall efficiency and effectiveness in meeting customer needs.

The BOD consists of the PDUSD AT&L, the Service Acquisition Executives (SAE's), Service Logistics Executives, Vice Director of Force Structure, Resources and Assessment of the Joint Staff (J-8), PDUSD Comptroller, Director PA&E, Director of Defense Procurement, Director of Defense Reform Initiative, and the Director of DCMA. The Board is made up of customer representatives and offices with OSD, but is not a governing body. It meets on a semi-annual basis to assess Agency performance, review initiatives, and provide advice on setting Agency priorities. The resulting customer input and "buy-in" are intended to improve DCMA's responsiveness across all of its business areas and its customers.

Specific functions the Board is intended to provide include:

- Guidance and input on strategic goals and unit costs goals, performance plans, and performance reports/assessments
- Feedback on value-added/low value-added products and services, mission priorities, and performance quality
- Advice in risk assessments
- Advocacy for funding, resources, and mission requirements.

The IDA review found little evidence of recent meetings by or directions from the Board of Directors. This is due in large part to the newness of the new Agency structure, as well as the change of administration. Nevertheless, the IDA Team sees this Board of Directors, and the Corporate Management Councils, as the Department's potentially most productive mechanisms for dealing with industry-wide contracting issues.

C.   DRI and other business practices issues

The DCMA as the "single face to industry" is a critical organization and catalyst in the execution of acquisition and contracting reform and civil-military integration. Key contributions are DCMA initiatives that are focused on streamlining in-plant processes and government acquisition processes that discourage civil-military integration. The focus is intended to be on eliminating to the greatest extent possible intrusive in-plant inspections, unneeded government paperwork, and multiple government-unique business processes and manufacturing management systems. A critical element of the DCMA efforts to drive the revolution in business affairs and associated reform initiatives is the establishment of a comprehensive end-to-end electronic procurement process for DoD.

Single Process Initiative: The DCMA has instituted the "single process initiative (SPI)" which allow each contractor facility to replace multiple government-unique management and manufacturing systems with a common system. The consolidation of processes increases operational efficiency, reduces contractor-operating costs, and ultimately contributes to cost, schedule, and performance benefits for the government. The SPI concept is probably the single most useful existing tool for reducing overhead costs; however, the contractors have little incentive to propose such efficiencies if their contracts are heavily weighted toward cost-based contracts.

End-to-end Procurement Process: DCMA is the program manager of the Single Procurement System (SPS), which is the basic building block of an end-to-end electronic procurement process model. The development of the end-to-end procurement process was initiated under DRID #47 and other reform initiatives to achieve a paperless contracting process. Current procurement processes waste too much time correcting mistakes and matching various system inputs and outputs. The key objective of the end-to-end procurement process is to assist in DoD's efforts to resolve financial management problems such as unmatched disbursements, un-liquidated obligations and over/under payments. One of the core components of the SPS is the Standard Business System

(SBS), which will replace legacy contract-writing systems used by various DoD procurement activities with a standardize, commercial, off-the-shelf software application. The SPS serves procurement activities DoD-wide that contract for goods and services worldwide and will link with other Service and DoD component and legacy procurement and payment systems such as the DFAS Corporate Database (DCD) and the Defense Procurement Payment System (DPPS) to provide automated interfaces between contracting and financial communities (see Figure 2, page 31). The process links systems and functional users in Military Departments with DoD agencies to provide seamless electronic information interchange to include all business processes associated with procurement.

D. Personnel and Agency performance initiatives

Integrated Management System. The Agency integrates its performance measurement with its planning and budget process using the DCMA Integrated Management System (IMS). The IMS is the DCMA strategic planning, resourcing, programming, and budgeting process. The DCMA has a performance plan in place that links performance plan objectives to the Agency's strategic goals to its unit- and activity-based Cost Management System and the Agency's integrated management system. Agency performance objectives and the cost to conduct its mission are clearly linked, and consist of the following four key elements:

- The DCMC One Book, which provides detailed policy on key DCMC operations and business processes to ensure compliance with defense and Federal acquisition regulations and standards for performing contract management services.

- The Performance Labor Accounting System (PLAS), which is the Agency's system for collecting labor data for activity-based cost management and for unit cost of contract administration services performed. The data collected in the PLAS are used both to manage the cost of operating DCMA as an enterprise, and to provide performance metrics based on unit costs of contract management offices (CMO). The PLAS is the basis of the Agency's Unit- and Activity-Based Management System, which links performance in achieving the Agency's strategic plan to the cost of performing the CAS services at each level and organization in the Agency.

- Unit Cost Pool based on PLAS-collected data for each Contract Management Office (CMO) by service sets (type of service performed, e.g., Contract Administration Services (CAS)) for major weapons systems, CAS for supply and related contracts, pre-contract services, risk assessments, contract closeout, pricing and contract modification, payment and financial management, etc. Performance metrics are compared against other CMO's and/or the master index for types of CAS services performed – historical averages.

- Cost per unit variance – e.g., how far from CMO-type average cost per unit of service?

- Process profile variance – e.g., the extent to which processes charged for differ from others.

- Unit cost, rate of change – e.g., what is the CMO percent change in cost per unit of service from prior FY baseline?

- Mater index – how different are the CMO's unit service costs in each pool or service sets?

- Agency-wide Performance Contracts (and Performance Metrics). Each CMO and other agency-accountable organization is committed to a target level of performance for a given level of resourcing. Individual goals are set for each CMO and each Contract Management District. The same process and same goals are applied to all levels of the Agency. The performance goals translate into performance metrics and the PLAS data against those performance goals translate into resources (FTE's).

Workforce Development: A strategic goal of DCMA is to enable DCMA people to excel. The objective is simply to build and maintain a work environment that attracts, develops, and sustains a quality workforce. The services performed by CAS personnel encompass many of the traditional functions required to support any organization or enterprise, such as planning, budgeting, finance, program management, engineering, and other business management processes. DCMA, like many other government agencies, is concerned about the demographics of its aging workforce, with little opportunity to replace personnel once they leave. Years of incentives to retire early and hiring freezes have left a workforce with most personnel "bunched" into a very narrow age group with similar amount of years employed in the Federal service. At issue is that many personnel will be eligible to retire at the same time and/or over a very narrow time period. With little opportunity to replace personnel over time, many of the senior and journeyman position vacancies cannot be filled with replacement personnel with sufficient experiences and training, leaving a brain drain of critical personnel skills and expertise. DCMA has begun to make a significant commitment to workforce training; ensuring employees have access to formal certificate programs and informal career training opportunities including the DCMA keystone program (a selective, three-year management training program designed to take college graduates and others for careers as professional contract managers and administrators), and mid-level training and senior-level development programs.

IV. CANDIDATE QDR AND 2ND TIER ISSUES

Current Performance Metrics do not meet the Section 192 (c) requirements – this is a cross-cutting issue. The CJCS CSAR system meets these requirements for DCMA's combat support functions. DoD needs a comprehensive system to continually evaluate

the effectiveness, efficiency, and economy of DCMA. OSD needs a mechanism to rate agency performance that is tied to a complete set of strategic objectives. Funding, resources, and performance tied to a clear set of mission goals is needed.

DCMA and other agencies do not appear to be trying to outsource any of their functions (FAIR inventory database). If this is an important Departmental goal, it belongs in the Performance contract.

SPS Vision for the Future

Past

LEGACY PROCUREMENT SYSTEMS

BCAS
ACPS
APADE
DPACS
ITIMP
MOCAS
SACONS
SAACONS
BOSS
USMC BCAS
AM IS
AMAS
CON-WRITE
PADDS

Acquisition

FINANCE SYSTEMS

LOG SYSTEMS

Today's

Finance Standard Systems

DPPS

DSDS

DCD/ DCW

PROCUREMENT SYSTEM

SPS

Acquisition

FINANCE SYSTEMS
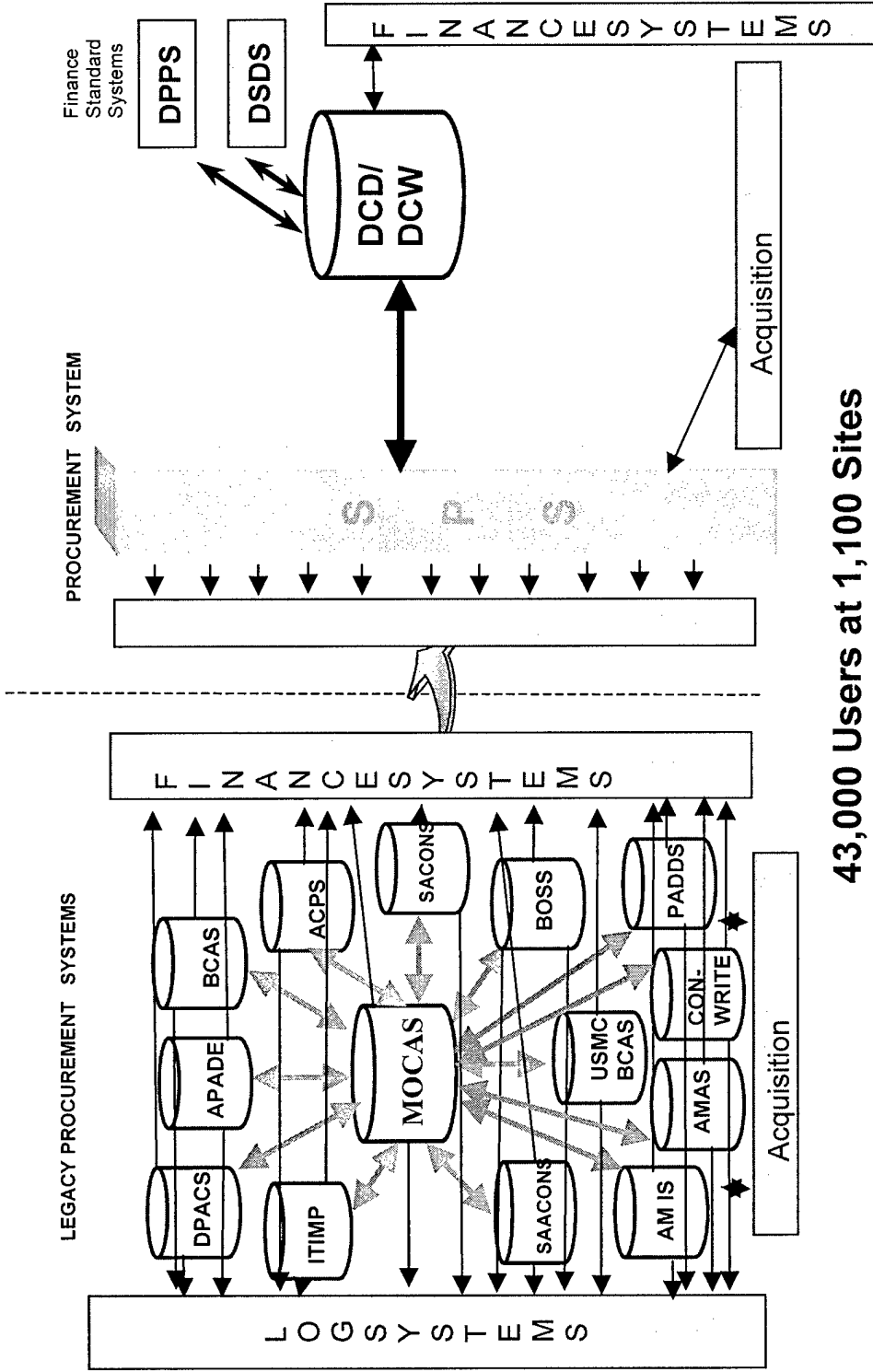
43,000 Users at 1,100 Sites

XII-31

XIII. DEFENSE CONTRACT AUDIT AGENCY

I. MISSION

A. Mission statement

DoD Directive 5105.36 states the mission of the Defense Contract Audit Agency (DCAA) is to perform all necessary contract audits for DoD and provide accounting and financial advisory services for negotiation, administration, and settlement of contracts and subcontracts. DCAA provides services to all DoD components responsible for procurement and contract administration and, on a cost-reimbursable basis, to other federal agencies; NASA, DOE, DOT and EPA are the main ones.

B. Origins and rationale

DCAA was established on 8 January 1965, in accordance with 32 CFR Part 387, replacing individual Service contract audit organizations. DCAA reports that the consolidation provided (1) greater efficiency and lower cost, (2) a single agency for contractors to deal with on contract audit matters, (3) one set of technical directives, (4) closer and more specialized management, (5) one facility for the needed specialized training, and (6) elimination of military department cross-servicing agreements.

C. Functions, products, resources, and customers

1. Functions and products

DCAA is a single function agency, as described in its charter. Within its single function, it provides a wide variety of products to contracting officers. However, two main product lines – forward pricing audits and incurred cost audits – account for 75 percent of DCAA's direct workload.

- Forward pricing audits: This pre-contract award product line includes price proposal audits, forward pricing rate reviews, contractor estimating system surveys, and "should cost" studies.

- Incurred cost audits: This post-contract award product line includes contractor internal control system audits, audits of contractor cost claims as they are submitted for reimbursement under flexibly priced contracts to determine if the costs are acceptable, and the final close-out of flexibly priced contracts.

- The remaining product lines include special audits, defective pricing, operations audits, disclosure statement reviews, and cost impact audits. Starting in 2000, DCAA began to assign experienced auditors to about sixty

major buying commands to provide continuous financial advisory services to help the contracting officers at these commands determine good business strategies – for example, evaluating procurement programs and related contracting vehicles in the planning stages – as well as fair and reasonable prices.

2. Resources

DCAA has five regional offices and a field detachment; they manage about 80 field offices and 270 sub-offices throughout the United States and overseas. DCAA staffing declined from about 7,000 (expressed in work years) in 1990 to about 4,000 in 1999, and is projected by the DCAA to remain at about that level through at least 2005. DCAA projects its total costs as follows (current as of the March 20, 2001).

Fiscal Year	FY01	FY02	FY03	FY04	FY05
O&M Funding	339.7	359.1	370.5	380.1	390.3
Procurement	4.7	1.5	1.5	1.5	1.5
RDT&E Funding	0.0	0.1	0.1	0.1	0.1
DoD Funding	344.4	360.7	372.1	381.7	391.9
Reimbursable	45.1	45.1	43.5	43.5	43.5
Total Funding	389.5	405.8	415.6	425.2	435.4

3. Customers

The primary customers of DCAA are contracting officers in the military departments and the Defense Contract Management Agency (DCMA). A second group of customers are the equivalent officials in other federal agencies.

D. Interview results

DCAA has received high marks from the interviewees designated by the Services. Generally, DoD acquisition reform proponents believe their reform will drastically reduce the need for the forward pricing and incurred cost audits that constitute about 75 percent of the DCAA direct audit workload. However, there is no dispute that the DCAA mission will remain necessary, albeit at reduced levels if the reforms work as predicted.[1] No suggestion has been encountered to devolve DCAA functions to Service auditors.

E. Assessment and issues

The following reform proposals – increase outsourcing, establish a management structure for Defense Agencies, establish a board of directors for each agency, and re-engineer end-to-end processes – would impact DCAA.

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[1] DCAA notes that acquisition reform has already had a sizable impact on its workload and has resulted in workforce reductions.

1. Outsourcing

Some have suggested that the basic work of DCAA could be performed by public accounting firms under the supervision of a much smaller DCAA. The Commission on Roles and Missions of the Armed Forces (CORM) identified the incurred cost audit product line as a prime candidate for outsourcing, but made no recommendation in this regard. The Defense Reform Initiative (DRI) mandated an extensive A-76 campaign to outsource many DoD tasks. Recently, the Business Executives for National Security (BENS) recommended that every Defense Agency be directed to complete a strategic sourcing study of itself, to seek to make changes in its entire organization so as to adopt modern best business practices, which in BENS' view, includes heavy emphasis on outsourcing.

DCAA representatives, the Service interviewees who have worked with DCAA, and some other observers disagree with the contention that much of DCAA's work should be outsourced. Their view is that the vast majority of what DCAA does is inherently governmental in nature and "fiduciary" with respect to public funds. DCAA stated that this is especially the case of incurred cost auditing. The Agency pointed out that the Federal Acquisition Regulation invests DCAA with the inherently governmental authority of determining whether contract costs are reasonable, allocable, and allowable by establishing final indirect cost rates for thousands of contractors.

The Service contracting specialists interviewed were very skeptical that a public accounting firm would have the level of commitment/concern for program success that DCAA exhibits. In addition, DCAA benchmarking (see Section IIA3 below) indicates that its rates are competitive when compared to those bid to the government by "Big 5" public accounting firms. The fact that non-DoD agencies choose to use DCAA services so often is further evidence that DCAA is providing cost-effective services. Also, the 1997 Acquisition Infrastructure Task Force report, DCAA has pointed out, concluded that there was no benefit to be gained by having public accounting firms conduct the specialized contract audits performed by DCAA.

2. Governance

The CORM recommended that DCAA and DCMA (then DCMC) be consolidated under the (then) USD(A&T), which meant moving the DCAA from under the DoD Comptroller, where it had long resided. In addition, the CORM suggested consideration be given to establishing a Defense Support Organization (DSO) for the overall management of the business-oriented Defense Agencies. The Defense Reform Initiative (DRI) also suggested a DSO-like organization.

The notion of DCAA/DCMC consolidation per se was not pursued after a joint DCAA/DCMC report that argued "1. There is no duplication in missions or professional activities of the two agencies. 2. There is no opportunity for meaningful cost reduction

through consolidation of DCAA and DCMC. 3. The consolidation of DCAA and DCMC could be perceived by knowledgeable outsiders as organizationally impairing the contract auditor's independence." [2]

However, the grouping of several Defense Agencies into a DSO-like organization is reevaluated periodically. DCAA and others – notably the General Accounting Office (GAO) and the American Institute of Certified Public Accountants (AICPA) – have argued that imbedding DCAA in a DoD acquisition reporting structure would eliminate its organizational independence from its customers. This is a fundamental issue for auditors and has long been a key DoD and government management control. Those who argue the need for auditor organizational independence recognize that it is unlikely that DCAA would ever be overtly pressured to improperly modify an audit. However, they still argue that third parties knowledgeable of the proposed alternative organizational arrangement might infer that audits have been influenced and therefore give them less weight.

3. Board of Directors

The CORM recommended creating a board of directors (BOD) to help oversee each Defense Agency. The DRI established the Defense Management Council (DMC) to provide oversight of all Defense Agencies. The issue of a BOD for each Defense Agency nonetheless remains alive.

DCAA believes that it experiences adequate oversight, from the DMC and others. It points out that, for example, the DoD Inspector General (DoDIG) performs external peer reviews of DCAA on a continuing basis, which on the whole is equivalent to a thorough review every three years. The DoDIG also participated in establishing DCAA internal quality assurance (QA) program, with the goal of having the DCAA QA organization perform reviews in such a way that the DoDIG can place maximum reliance on them in carrying out its peer review responsibilities. DCAA work also is reviewed from time to time by the GAO; for example, DCAA is often directly involved in GAO reviews of broad issues.

4. End-to-end functions

DCAA is an important participant in an acquisition system that many see as in need of reform, and is one of the group of overseers that some claim are too numerous, too intrusive, and too wedded to past practices.

The questions here are not directed solely at DCAA. Nonetheless, it can be answered that DCAA has a role to play in the solution. For many years, the DCAA contract audit system has been grounded on good contractor internal controls; DCAA

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[2] Memorandum for Director, Defense Procurement from the Director, DCAA and the Commander, DCMC, 28 August 1995.

assists contractors in establishing and maintaining adequate controls. It then audits the contractors' systems, identifies and reports deficiencies, and finally works with contractor personnel to verify that deficiencies have been corrected. The ultimate goal is to increase the reliability of submitted claims and proposals, reducing DCAA time to review them, and to speed up the current contracting process.

DCAA also supports acquisition reform initiatives in DoD. It has supported the price-based acquisition (PBA) working group created by the FY1998 DoD Authorization Act to establish processes that focus on the value received for the price paid without intrusive reviews of the seller.

However, the DCAA role has been and will remain most important in reforming acquisition in those areas where the level of competition is not adequate to support price-based acquisition. For example, a DCAA auditor may well be an advisor to a contractor integrated product team for a price proposal, providing the team real-time feedback on potential problems during price proposal preparation. Another example is strategic supplier alliances (SSAs), agreements on sharing information and working together outside normal contract documents; DCAA can and should help the work of these alliances by advising on price reasonableness and other matters.

DCAA is a central node in a ubiquitous information network covering the universe of government contracting. Of necessity it will continue to be a prominent player in efforts to reform the substantial portion of government contracting that will never be amenable to simple price-based acquisition.

II. PERFORMANCE

A. Metrics and benchmarks for DCAA

1. Performance contract

The DCAA performance contract covers forward pricing audit and incurred cost audit services. Within each of these business areas, metrics are in two categories, unit cost and productivity, and quality and customer responsiveness. The specific deliverables are summarized in the Annex to this chapter. Briefly they are as follows.

- Unit cost per million dollars of proposals/contracts audited; ceilings for each of five fiscal years
- Dollars audited per work-year; floors for the same fiscal years
- Audit cycle times, from receipt of request to completion.

There are also Agency-wide metrics, ceilings for each of five fiscal years on the Agency-wide cost per direct audit hour, and a floor on the percentage of audit reports issued electronically.

2. Customer satisfaction

DCAA has conducted customer satisfaction surveys since FY 1995. The surveys have covered different customer groups and have sought to measure dimensions similar to those addressed by the DoD 1999 Biennial Review. While there is not direct comparability with the DoD 1999 Biennial Review, the following table is suggestive.

Rating, on a scale from 1 to 5				
Survey	Timeliness	Quality	Usefulness	Overall Satisfaction
FY94 Procurement	3.8	3.9	4.0	4.0
FY96 DCMC (now DCMA)	3.6	4.0	4.0	4.0
FY97 Reimbursable (non-DoD)	3.9	4.1	4.1	4.0
FY97 Procurement	4.1	4.2	4.2	4.2
FY99 Investigative Support	4.1	4.3	4.4	4.2
1999 Biennial Review	80%	90%	90%	85-95%

Categories are not precisely the same from survey to survey. For example, the Biennial Review had a "coordinate with customer" category, which is related to the categories presented above, but not directly comparable. There also have been notable exceptions: for example, in the 1999 Biennial Review "coordinate with the customer" category, satisfaction was in the 85 to 95 percent range, except with respect to the sub-category "budget and resource input." Here, satisfied customers totaled about 65 percent and dissatisfied customers about 10 percent. DCAA is seeking to work with the survey firm to understand these results. So far, DCAA can say that there was a low (40 percent) response rate to this area of questioning and that, of the approximately ten respondents who answered negatively, none was from a military department. Despite this anomaly, the overall results certainly show improvement and a current state that is quite satisfactory.

3. Benchmarking

DCAA benchmarks its hourly audit rates against those of the "Big 5" public accounting firms. Specifically, it compares DCAA operating costs divided by DCAA direct audit hours to the average rates charged by Big 5 firms under the terms of GAO and Department of Labor contracts. These comparisons show DCAA rates to be 15 to 17 percent lower.

4. Internal metrics

DCAA has its own internal strategic plan. The 1999 plan contained five goals, each with 4 to 7 objectives, and measures/milestones for each objective. The goals, and a sample of the subsidiary objectives of each goal, are paraphrased below:

Goal 1 is to build an environment of trust, teamwork, mutual respect, and pride. Among four objectives is to implement by FY2001 a peer best practices sharing program among DCAA managers, involving at least one field audit office per region.

Goal 2 is to assure customer satisfaction by providing timely and responsive audits and financial services. Among the seven objectives are the following four:

- By FY2000 and 2001, reduce audit hours Agency-wide for contract audit closings by 20 percent and 25 percent, respectively, of the FY1998 baseline.
- By FY2000, increase by 50 percent of the 30 September 1998 baseline the number of contractors that submit interim vouchers directly to DFAS via EDI or web.
- By FY2000, form a new business development network to identify customer needs, with the goal to annually develop 100 man-years of new work Agency-wide.
- By FY2000, establish a process to identify customers using alternatives to DCAA services, and reduce the use of outside providers when advantageous to the government.

Goal 3 is to attain the highest level of professional competence. The six objectives under this goal include the following three:

- By calendar years 1999, 2000, and 2001, improve audit quality by increasing "zero error" audit reports to 75 percent, 85 percent, and 95 percent, respectively.
- By FY2001, increase by 10 percent the number of professional certifications and advanced degrees (e.g., CPA, CIA, MBA, MPA) held by auditors over FY 1998.
- By FY2000, establish a Supervisory Development Program comprising auditors assessed to have exceptional potential skills as leaders/motivators.

Goal 4 is to provide best value audit and financial services through continuous evaluation and improvement of audit and administrative processes. Among the five objectives supporting this goal were the following three:

- Each year through FY2002, reduce the cost per direct audit hour (in constant dollars) without impeding other strategic objectives.
- Each year through FY2002, increase productivity through process improvement on incurred cost and forward pricing.

- By FY2002, produce electronic audit reports and working papers in all circumstances where appropriate.

Goal 5 is to provide an integrated information technology (IT) structure that promotes effectiveness and efficiency in providing services for internal and external customers. Under this goal are six objectives related to planning, developing, and training in improved IT systems.

DCAA top management indicated that this internal process has been and continues to be taken seriously; a new strategic plan is forthcoming in April or May 2001 based on experience with the 1999 plan and subsequent performance contracts. The internal metrics discussed above preceded – and experience with them informed the selection of – the metrics of the current performance contract described in the Annex to this chapter. In the future, the two sets of metrics are intended to remain mutually consistent and supportive.

5. Top management interactions with customers

DCAA has a program wherein top management, including the director himself, regularly visits customers. Such visits involve not only meetings with customer top management, but meetings with working level groups. For example, since July 1999 the DCAA Director and Assistant Director for Operations have visited 15 major acquisition commands. The DCAA Director, Mr. William H. Reed, believes that this customer focus of top management has been a very significant element in improving DCAA performance and customer satisfaction over the last decade.

B. What the metrics and benchmarks show

1. Effectiveness

The DoD Inspector General (DoDIG) reports are positive. The DoDIG oversight report on DCAA dated September 27, 2000 stated

> "The 12 oversight reports on DCAA audit activities issued in FYs 1997, 1998, and 1999 indicated no material, uncorrected noncompliances with applicable auditing standards or audit policies and procedures. All deficiencies reported as a result of the reviews are corrected or scheduled to be corrected."

DCAA argues, by way of example, that in FY2000 it audited $90.9B of incurred cost and reviewed $93.9B of forward pricing proposals. Audit recommendations resolved in FY2000 resulted in contract cost reductions or funds made available for other uses totaling about $2.4B. This implies a $6.60 return for every one of the $364M expended for DCAA operations.

DCAA is not a combat support agency. Nonetheless, based on his experience, the DCAA Director opined that the DCAA would be able to accommodate the surge demands of a war by prioritizing work and temporarily deferring lowest priority work.

2. Efficiency

The performance contract metrics include only indirect indicators of auditing efficiency. However, the DCAA internal strategic plan (Goal 2) includes a specific metric for reducing audit-hours for contract audit closings, directed at increasing efficiency, and a qualitative objective (Goal 4) to increase productivity through process improvements. Overall, DCAA appears to strive for efficiency.

3. Support for innovation

DCAA has no direct role in bringing about the revolution in military affairs. However, it does have a secondary role. One Service interviewee argued that procurement cycle time is crucial in getting new capabilities to the warfighters. He noted that the time taken up by forward pricing negotiations had been a major problem and that DCAA had been very helpful in working its part of this problem. An interviewee from another Service emphasized that accomplishing the forward pricing audits in less than thirty days, as specified in the performance contract, is a very important matter.

Arguably, this issue is not only one of supporting innovation, but also one of effectiveness. The time value of money is unclear in the context of government contracting. It appears from interviews that delays in starting contract work have led to increased project cost and in some cases, when the delay was too long, to the loss of the appropriated funds. Pernicious results may also follow from delays in settling incurred cost claims. However, beyond the goal of maintaining a 30-day average forward pricing audit cycle time, the general concept of reducing procurement lead times does not appear to be part of DCAA performance measurement systems.

C. Comparison of performance before and after consolidation, if relevant

DCAA has been in operation for 36 years, thus "before and after" comparisons are not relevant. There has been no suggestion that the contract audit function should be returned to the Services.

D. What the interview results find

Interviews of Service contracting professionals produced praise of DCAA; others expressed no opinion for lack of knowledge; none felt that DCAA was a problem area.

E. Assessment & issues

DCAA is a top performer. There is no significant issue that pertains to it individually.

III. MANAGEMENT

A. Description of Agency top management

DCAA has been headed by Mr. William H. Reed, CPA, a career SES, for 15 years. At DCAA headquarters, he is assisted by a deputy director and three assistant directors, all of whom are SES CPAs. The DCAA general counsel is provided by the Defense Legal Services Agency. In the field, the director and deputy director of each regional office and the field detachment are also SES or GS-15 CPAs. Overall, as of the end of 2000, DCAA had 15 SES and 33 GS-15 executives; all but two were CPAs.

B. Status of processes for PSA supervision

Guidance and supervision from the DoD Comptroller appears to be informal. It is unlikely that formality is in order since DCAA is strong with respect to obtaining customer feedback and having its performance assessed. Planning, programming, and budgeting is not a salient matter for DCAA itself, although proposed changes to PPBS might benefit from DCAA support.

C. Pricing practices and initiatives

DCAA operates within DoD on appropriated funds, but something over ten percent of its budget is from reimbursable work for non-DoD agencies. In the latter segment of its market, DCAA is active in a competitive service market through its involvement with customers who can, and sometimes do, select public accounting firms to perform their contract audits. DCAA is sensitive to its costs. Further, it is aggressive in determining future needs of its customers and seeking to meet them. The placement of financial advisors with customers is an example. DCAA management has initiated many programs to reduce costs and enhance service; its focus on getting the contractors' internal cost accounting systems right is one example.

D. DRI and related business practice initiatives

DCAA has been active in pursuing internal business practices improvement and in improving its interfaces with its customers.

E. Personnel and facilities management plans or initiatives

From 1990 to 2000, DCAA staffing declined from about 7,000 to about 4,000 work-years; the four thousand level is expected to continue. However, DCAA now has a professional work force that is marching by the hundreds into retirement each year. Commencing in 1999, DCAA began a major effort to recruit entry-level auditors. About 600 new auditors were hired in FY 1999 and FY 2000, and plans call for hiring another 200 in FY 2001, all to replace auditors leaving through normal attrition. Top managers report that they are competing well for quality college graduates. DCAA has an active

campus recruiting campaign and has been successful in retaining new hires. For example, only nine percent of the FY1999 new hires have departed DCAA by early 2001.

F. Interview results

DCAA management gets high marks from interviewees. It has the reputation of going out to mix with DCAA customers and responding to their concerns. One interviewee stated his belief that the DCAA downsizing had gone far enough, if not too far. He admired the way DCAA had managed its downsizing over the last decade, but believed that the concomitant loses of DCAA representatives at or near contractor work sites has diminished the quality of working relationships, which are important to effectiveness.

G. Assessment and issues

DCAA is under strong management. There is no QDR-level issue with respect to DCAA management.

IV. CANDIDATE QDR ISSUES

No issue specific to DCAA has appeared that would merit attention in the 2001 Quadrennial Defense Review. However, DCAA is necessarily involved in the broader issues alluded to in Section IE above. Nonetheless, no strong evidence and certainly no passion have been found for changing the governance of DCAA.

The vigorous improvement program that has been working in DCAA for many years may be a useful model for other service activities. The combination of measurement, customer satisfaction surveys, and top management involvement in customer relations seems to have been very effective.

If a public accounting firm is called upon to do what DCAA auditors do, it seems unlikely that savings will accrue. The potential savings seem to be in changing the system "root and branch." The QDR, in considering acquisition reform, may be well advised to consider the role that DCAA can play in changing the system for those acquisitions that will still have to involve some degree of scrutiny of contractor costs.

ANNEX[3]

SYNOPSIS OF DCAA PERFORMANCE CONTRACT METRICS
(FROM THE FY 2001 – 2005 CONTRACT)

Forward pricing audits

Average cost per $1 million of forward pricing proposals audited will not exceed:

FY99	FY00	FY01	FY02	FY03	FY04	FY05
749	727	727	729	729	730	730

Forward pricing proposal millions of dollars audited per work year will meet or exceed:

	FY99	FY00	FY01	FY02	FY03	FY04	FY05
OverallProposals	97.6	106.9	111.3	115.3	119.1	122.3	125.5
< $500 million	190.8	193.5	201.3	208.4	215.6	221.0	227.1

Achieve an average cycle time on forward pricing audits of 30 days or less.

Incurred cost audits

Average cost per $1 million of incurred cost contracts audited will not exceed:

FY99	FY00	FY01	FY02	FY03	FY04	FY05
1,193	1,243	1,268	1,291	1,307	1,318	1,326

Incurred contract millions of dollars audited per work year will meet or exceed:

FY99	FY00	FY01	FY02	FY03	FY04	FY05
61.3	62.5	63.8	65.1	66.4	67.7	69.1

Maintain the percentage of audits of "adequate incurred cost submission" completed:
- within 12 months of receipt at major contractors at 92 percent
- within 24 months of receipt at non-major contractors at 99 percent.

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[3] Note that this Annex is only a synopsis to provide a general sense of the performance contract. Various terms and conditions pertain to the measures summarized above. Therefore, the performance contract itself should be read for a full understanding.

Agency-wide

Agency-wide average cost per direct audit hour will not exceed:

FY00	FY01	FY02	FY03	FY04	FY05
96.33	99.89	103.59	106.90	110.32	113.85

Increase the percentage of audit reports issued electronically to a minimum of 95 percent.

Customer surveys, benchmarking, and improvements to metrics

DCAA will conduct surveys of military, DCMA, and civilian agency customers using an independent firm, every two years. The surveys will identify major issues of concern to DCAA customers, and action plans to address these concerns will be submitted to the USD(C).

Each year, DCAA will compare its cost per direct audit hour rate to the corresponding rates of national accounting firms. It will report the results to the USD(C) with, if appropriate, a plan for accomplishing needed improvements.

DCAA noted that the FY2000 numbers were estimates at the time the FY2001 - 2005 performance contract was developed, and provided the corresponding actual FY2000 experience. The two sets of numbers are summarized below.

	Perf. Contract	FY2000 Actuals
Forward pricing audits		
Average cost per $1 million	727	548
$M audited per work year	106.9	136.1
$M per work year < $500 M	193.5	221.2
Incurred cost audits		
Average cost per $1 million	1,243	1,207
$M audited per work year	62.5	61.8
Agency-wide		
Cost per direct audit hour	96.33	94.49

ANNEX A

SERVICE HEADQUARTERS INTERVIEWS

ADM. ROBERT HILTON
CAROLINE ZIEMKE

Annex A: Service Headquarters Interviews

The IDA study team sought the views of officials in the Military Departments that have financial or functional responsibilities which require them to work with the Defense Agencies. In addition, we met each of the Service QDR teams to solicit their views on Service issues and concerns with Agency performance. This Annex presents a summary of the cross-cutting issues and concerns most commonly raised in these interviews.

A.   FISCAL TRANSPARENCY

All the Services expressed some frustration with the lack of Service input into the planning and budgeting process within the Defense Agencies.

There was a consensus that, ideally, the Services should have the opportunity to "scrub" Agency budgets ahead of time. Failing that, they would at least like to see the Agencies compelled to provide Service planners with *meaningful* numbers *at the beginning* of their POM cycles to avoid surprise, after-the-fact changes that require adjustments to Service budgets.

- If they must pay the bills and provide a significant share of the manpower to run the Defense Agencies, the Services believe it is only reasonable that they have some say in how those resources are managed.

The inability (or unwillingness) of the Defense Agencies to provide timely data so the Services know where their accounts and cash flow stand was among the most commonly cited problems.

- All the Services have had to break into other programs in order to pay unexpected Agency bills. Some of the Agencies have improved in this regard — several people singled out DFAS for credit (if not exactly enthusiastic praise).
- What the Services want is a system that enables them to forecast rates and costs from the Defense Agencies with reasonable accuracy so that these costs can be built into their POMs.

As the Services see it, accounting and reporting practices in the Defense Agencies create no incentive for managers to keep their accounts in balance or their cost projections reasonably accurate.

- They always have the option of passing additional costs on to the Services.
- The Defense Agencies may be making real efforts to cut costs, infrastructure, and overhead, but given the present opacity of their budgeting and management, the Services have no way of knowing if that is the case.
- The result is that the Services continue to suspect that the Agencies are passing along the additional cost of their inefficiencies to their Service customers.

- The Services do not necessarily object to paying the bills, but they do mind being forced to do so when the Agencies do not have to explain or justify them.

The bottom line (which we heard from all the Service programmers whom we interviewed) is that the Services do not believe that the Defense Agencies (which together represent almost as large a share of the Defense Budget as do each of the Services and for which the Services, in large part, pay) are held to anywhere near the same level of rigorous spending oversight as are the Services themselves. At the same time, the Services would not want to take back the responsibility for most of these functions; rather, they seek a better management framework for executing the current assignment of responsibilities.

B.   GOVERNANCE

All the Service programmers we talked to seemed to agree that one of the key questions the QDR should address is: Who should manage the Defense Agencies?

Although they disagreed (or abstained) as to the best solution, all seemed to agree that the current Principal Staff Assistant (PSA) arrangement is inadequate because the PSAs are largely policy types (usually political appointees) with little management experience or technical knowledge of their Agency's business line, and have minimal power (or desire) to control them.

A general consensus emerged among the Service programmers that the OSD PSAs are weak and do not present a viable solution to the problem of management oversight for the Defense Agencies.

- The Services view the PSAs as defenders of and advocates for the Agencies they monitor.
- There seems to be a general sense that OSD is inclined to take the side of the Defense Agencies when their interests come into conflict with those of the Services.
- It seems unlikely that creating a new Defense Executive, even a New Deputy Secretary, to manage the Defense Agencies would alleviate this concern. In fact, from the Service point of view, to do so could make matters worse by giving the Defense Agencies an even more powerful and higher-profile advocate vis-à-vis the Services.

There is, in the Service view, an urgent need to establish formal, rigorous processes (beginning with the QDR and POM reviews) based on sound analysis that can enable DoD to make informed decisions about the proper trade-offs between Service needs and Defense Agency functions. Management oversight does not have to be "one-size-fits-all."

- For some functions (for example, cutting checks and performing security investigations), a contractual agreement between Agencies and local commanders might work best.
- For others (such as providing secure, DoD-wide communication connectivity in wartime), the contractual relationship should be at the DoD-wide level.

C. BUSINESS MODELS

If the Defense Agencies are to fulfill their missions efficiently, there need to be *formal* lines of communication between the Agencies and their customers at all levels.

Much of the discontent with Defense Agency performance stems from the basic fact that the Department of Defense is trying to run quasi-military enterprises on a business model, but the managers involved have no real business experience.

- Perhaps the answer is to accept the reality that there are certain functions related to operational effectiveness and security that we cannot and should not run on a commercial business model.
- Right now, we have a not-very-effective hybrid. The Defense Agencies are not as efficient as they might be and the quality of service they provide could stand improvement in many areas.

A basic question that OSD and the Services should tackle is whether, in light of the reality that the military is not a business, practices that make sense for businesses (like just-in-time stocking) put costly and potentially debilitating strains on Service operations.

- There are clearly cases in which greater effectiveness, not peacetime efficiency, should be the highest priority.

So far, the Defense Agencies have failed to strike a workable balance between the move toward greater efficiencies and the operational demands of doing the military's business.

D. PERFORMANCE CONTRACTS

As they are currently executed, Performance Contracts are not an effective mechanism for oversight and will not fix the weaknesses in the Defense Agency "business model" or improve Agency-Service communication.

The greatest weakness of the Performance Contracts is their lack of incentives. Future Performance Contracts should include rigid benchmarks and performance standards, and Agency management should pay some clear price for failing to meet those standards. Right now, there is no particular incentive for the Defense Agencies to exercise effective management. There are no built-in incentives for efficiencies. For example, there is no link between past performance and future funding.

- The Services recognize that some of the failure of the Performance Contracts stems from the fact that the Services have not demonstrated serious interest in their part of the process and thus have not taken full advantage of the opportunities they do have to influence the management of the Defense Agencies.

- But they also believe that until the Services have at least some influence over Agency planning and budgeting (as the CINCs currently have over Service POMs), Performance Contracts will have little real management value.

- If the Defense Agencies were formally incorporated into all aspects of the POM process, the Services would have no choice but to develop expertise and participate actively in the process.

- Until the Services enjoy some measure of control over how much money the Agencies receive, they won't have any power to push for improved efficiency or services and thus no reason to invest time and develop expertise in the area.

The Performance Contracts might be fixed to improve their value. They could be used, for example, as a mechanism for bringing Defense Agency priorities, trade-offs, and measures of efficiency into better synchronization with the needs and priorities of their customers.

E.   DEFENSE AGENCY "MONOPOLIES"

All of the Services expressed some frustration with the lack of options that result from Defense Agency "monopolies," especially in "commercial areas" such as communications, supplies, fee-for-services (like writing checks and conducting security investigations).

- Can some of these functions be outsourced, or at least thrown open to competition?

- This could serve two functions: 1) to enable the Services to get the best value for their money, and 2) to provide incentives to the Defense Agencies to do their jobs more efficiently.

Perhaps the Services really are getting the best deal they can from the Defense Agencies; but the fact that the Agencies are sheltered from competition creates the perception among the Services that they could, in many cases, get much better value for their money from the private sector.

At the very least, the Services seem to agree that DoD should analyze, on a case-by-case basis, whether the missions of the Defense Agencies are inherently governmental and, more importantly, whether a given function is best performed by a Defense Agency.

There is some concern among the Services that Defense Agencies are becoming too "entrepreneurial" and are trying to expand their scope of activities in order to justify their size and budgets. DLA and DISA were most often mentioned in this regard.

F.   EFFICIENCY INEQUITIES

The Services believe they have been forced to make real trade-offs between support and tanks, ships, and airplanes and that the funds that Services transfer to the Defense Agencies are effectively developing "tail" at the expense of "tooth."

- There seems to be a general perception that 1) even though the Agencies have downsized somewhat, they have not had to do so proportionately to Service downsizing, and that 2) the Services have not seen sufficient "return on their investment;" as a rule, the promised efficiencies have not been fully realized.
- In short, the Services are convinced that in many cases they are not getting what they are paying for from the Defense Agencies.

In general, there seems to be a perception that while the Services have struggled to reduce their own infrastructure, downsize forces, outsource functions, etc., in order to get the most out of their budgets, the Defense Agencies have not had to make similar sacrifices.

G.   COMMENTS: THE STORY IS NOT ALL BAD

Within the Services, where you stand seems to depend on where you sit — headquarters and field-level customers often have very different views of the quality of Agency performance. Most of the Agencies received mixed reviews.

- Often the assessment of Agency performance was most critical at the headquarters level, where the focus was on costs and the Service-wide trade-offs that had to be made to accommodate them.
- At the field and local levels, where the primary concern was whether the Agencies can provide the services needed, the assessments were often less critical. This was notably the case with DLA (and, to a lesser extent, DISA).

Not all the Defense Agencies attracted the same degree of criticism.

- Some, like DCAA and DCMA, were widely viewed as both useful and efficiently run.
- There did not seem to be much heartburn about the way DECA is run, although most of the Service programmers we talked to wondered why the Department of Defense needs to be in the grocery business.
- Pretty much everyone thought DSS was a disaster and that outsourcing should be given serious consideration.
- But, in a few cases, most notably DFAS, the assessment was reversed — at the headquarters level, there is a sense that this Agency is getting better at providing reliable information to programmers and creating fewer additional charges, while at the local level, there is a perception that DFAS technical representatives do not know their jobs and make little effort to work with Service dispersing officers to solve ongoing system problems or facilitate case-by-case troubleshooting.

Most of the people we talked to stressed that the Services do not want these functions back and that they did not do a particularly good job performing them when they had them. In general, the Services recognize the need for most of the Defense Agencies, but urge the QDR to acknowledge and attempt to deal with the obvious weaknesses in some of the end-to-end processes for their functions, budgeting, and management.

ANNEX B

MANAGEMENT METRICS FOR DEFENSE SUPPORT ACTIVITIES

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Annex B: Management Metrics for Defense Support Activities

A number of programs have been established that use management metrics to assess the performance of the Defense Agencies. These programs attempt to measure performance in a formal way, using quantitative indicators based on hard data and special purpose surveys. This Annex explores how metrics can be used to strengthen Defense Agency performance, reviews recent examples and experience, and identifies unresolved issues.

I. THE NEED FOR METRICS

Defense support activities provide goods and services like those produced in the commercial economy. Defense Agencies and activities provide communications services, spare parts and consumable products, payroll and audit services, and health care, among other things. The military departments provide training, repair services, and building maintenance. The Department of Defense is best served if these goods and services are of adequate quality and as inexpensive as possible. Assuring that this is the case is a major management problem.

Unlike the private sector, DoD cannot rely on the profit motive to guide it toward efficiency and effectiveness in the provision of support. Of course, even private firms cannot look just at their profit and loss statement to know if they are operating efficiently; they also must monitor their production and distribution processes to identify problems and find opportunities to improve quality or reduce cost. And they can set up profit and cost centers and rely on monetary incentives to push the managers of these centers toward efficiency. DoD cannot do this. DoD support organizations are often monopoly providers facing fixed levels of demand. They need not fear that reduced quality will drive away customers. Excessive costs usually result in larger budgets, not lower sales.

Since managers of defense support activities don't get the feedback provided by market mechanisms, they, and the people they report to, need a way to distinguish whether these activities are doing a good job. A set of carefully designed, quantitative management indicators, or metrics, for each activity can fill this requirement.

The most important things for metrics to capture are the cost per unit of whatever the activity produces and the quality of the output. Quality must be broadly defined and may be multi-dimensional, capturing such things as timeliness, responsiveness to customers, and meeting professional standards. Other aspects of organizational

performance, such as the ability to innovate effectively, may also be of interest, but may also be harder to measure.

II.   THE USE AND LIMITATIONS OF METRICS

While a good set of metrics is probably necessary for efficient operation of defense support activities, it may not be sufficient. The issue of incentives again intrudes. Metrics can be used to assess performance and set targets. What happens if performance is assessed as poor or if targets are not reached? Some have suggested that budget reductions should be used to punish poor performance, but that punishes the customers of the failing activities as much as the activities themselves; it provides no clear link to improved future performance. There is the threat that top management and other employees can be replaced, but that is generally not simple in a government environment.

At least one, and preferably two, conditions should pertain for metrics to improve the management of defense support activities.

- The activity managers should care about improving efficiency and effectiveness, even though their personal rewards are very loosely tied to these goals.
- The officials who oversee the activity managers should communicate their desire for more efficient and effective operation, should systematically monitor performance, and should reward or punish managers accordingly.

Even if these conditions hold, metrics are just a step toward better performance. They can help identify areas of success and failure, but they usually cannot directly show how to turn failure into success. That requires the intricate work of dissecting production processes to identify where they can be improved and of comparing processes in different, but similar, organizations to understand their differences and to identify what works better.

The point is that good metrics do not, by themselves, ensure improved performance. Metrics must be accompanied by management attention and careful analysis. Still, we believe that good metrics can play an important role in improved management. In Section III we discuss how metrics themselves should be evaluated: How do we know when we have a good set of metrics for a particular defense support activity?

III.   WHAT SHOULD WE SEEK IN METRICS?

Metrics can bring management visibility to key areas of Agency performance. A critical prerequisite is to have a clear idea of what constitutes Agency success, and what objectives and priorities should guide Agency performance. Quantitative measures can then be defined for the most important areas, and goals and standards can be established to assess performance. Of course, some important areas of performance may not prove

B-2

amenable to quantitative measurement. Performance metrics must then be used in conjunction with other tools, e.g., independent assessments and project management.

All critical areas of performance should be considered as candidates for management metrics. For the review of Defense Agency performance, IDA identified four focus areas:

- Efficiency
- Peacetime Effectiveness
- Wartime Effectiveness
- Innovation for Joint Vision 2020.

IDA identified these four areas as the key dimensions of Agency performance. Most of the Agencies were formed to take advantage of economies of scale of consolidation. So efficiency, providing needed goods and services as cheaply as possible, is clearly central. Meeting the needs of military customers in both peacetime and wartime is the reason support activities exist, so they are areas of performance that should be tracked. Innovation may be a less obvious dimension of Agency performance, but it is also critical. Innovative, appropriately designed combat support, particularly in the areas of logistics and communications, is a major component of the transformed force DoD is trying to design. If the Agencies aren't performing well in this area, many of the goals of transformation may well be unattainable. If we want to encourage innovation, we had best track its accomplishment.

We distinguish among the four areas listed above because they are important aspects of performance. However, in setting performance goals, they should be considered together, recognizing the tradeoffs among them and how each contributes to achieving DoD's overall objectives. Even at a conceptual level this can be difficult. For example, measures of efficiency and effectiveness can address peacetime operations, preparations for war, and wartime operations. Some activities promote efficiency and effectiveness in both peacetime and wartime; for example, improving transparency in logistics systems. In other cases, there may be conflicts; for example, maintaining low inventory levels for items rarely used during peacetime. Performance goals should be consistent with one another and with DoD's overall objectives so that they do not promote performance that is detrimental.

The need for performance indicators that cover several areas is also emphasized in the business literature on management metrics. For example, under the Balanced

Scorecard approach, executives are advised to rely on a small number of metrics that reflect all vital aspects of performance, namely: [1]

- Financial
- Customer
- Internal Processes
- Strategic Innovation.

If management metrics neglect some of these areas, there is a risk that executives will focus on improving performance only in the areas that are measured, possibly at the expense of performance in the areas that are not visible.

The business literature on management metrics also recommends that they focus as much as possible on ultimate goals, as opposed to intermediate steps. Four stages of strategy are identified:

- Outcome
- Output
- Process
- Input.

In education, for example, comprehensive test scores might measure ultimate outcomes, while the number of students graduated only measures output. The number of teachers completing a training program might be a process metric, while the number of teachers hired would be an input metric. Clearly, in assessing a school's performance, it is more meaningful to measure outcomes (test scores) than inputs (new hires). Outcome metrics provide the kind of bottom-line assessment that deserves the attention of a top executive.

In devising a set of metrics, it is important to tailor them to match the interests and attention spans of the managers who will use them. A high-level executive, e.g., the Deputy Secretary of Defense, should be asked to review only a handful of metrics per Agency, all of which should be critically important. However, for purposes of OSD analysts and Agency managers themselves, a larger, more detailed set of metrics is appropriate.

The following section describes programs that use metrics to assess the performance of Defense Agencies, and offers consideration of how well they meet the criteria described here.

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[1] The approach was introduced in Robert S. Kaplan and David P. Norton, "The Balanced Scorecard—Measures that Drive Performance," *Harvard Business Review*, January-February 1992.

IV. ASSESSMENT PROGRAMS THAT USE METRICS

One important goal of the IDA review was to determine how effectively DoD employs performance metrics in assessing and managing Agencies and support processes. We examined the three main DoD-wide systems in place for measuring Agency performance: the Joint Staff's Combat Support Agency Review Team (CSART) reports, the Biennial Surveys of Agency customer satisfaction, and the metrics included in Agency Performance Contracts.[2] The measurement systems are described here, and we summarize briefly what each tells us about recent Agency performance. None of these systems provides an integrated assessment of all the critical dimensions of performance across all the Agencies and support processes. Nevertheless, they provide useful building blocks for the needed system.

A. Joint Staff Combat Support Agency Review Team Reports (CSARTs)

The Goldwater-Nichols Act of 1986 established the definition of Combat Support Agencies, and it charges the Chairman of the Joint Chiefs of Staff to submit a report, not less than every two years, concerning the readiness of each CSA to perform with respect to war or threat.

The Joint Staff provided the IDA review team with CSART reports for DISA, DTRA, and DLA. The CSARTs summarize and assess the views of the CINCs and their staffs on operational matters, as well as a wide range of management concerns. We found that they do a thorough job of gathering information from the CINCs on the operational performance of the CSAs. This information should play an important role in managing the CSAs in any future management system. The most recent CSART reports for DISA and DTRA cover a broad range of performance and management issues. DISA is lauded for its contributions to command effectiveness, but there is concern that it should be deploying new technology more quickly to keep pace with commercial standards. There is also concern that the rates DISA charges for its services are not adequately explained or justified, and sometime seem very expensive relative to commercially quoted rates. DTRA was found to provide satisfactory support to combat forces. DLA had a generally positive assessment, although more work needs to be done to improve exercise training support. The CSARTs plan to move toward increasing the use of explicit quantification in future reports.

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[2] There are other assessment mechanisms affecting particular Agencies. For example, DoD's Inspector General conducts an ongoing series of peer reviews of DCAA, while DARPA and DTRA participate in OSD's science and technology planning process, which also includes some amount of peer review and assessment.

B.   Biennial Surveys of Customer Satisfaction

OSD's customer satisfaction surveys are the product of the biennial reviews mandated by the Goldwater-Nichols Act. Seven reviews have been completed since 1987 by the Office of the Director of Administration and Management in OSD. Organizational customers (not retail customers) are surveyed to provide feedback on Agency performance for each Agency's product and service area; results are presented in a standardized form. The response rate for the most recent surveys was roughly 50 percent. The surveys provide a useful basis for assessing Agency performance in a number of dimensions.

Figure B-1 summarizes the results of the 1999 biennial survey of customer satisfaction. Performance is quite varied. Six Agencies were rated "satisfactory" or better by 70 percent of their corporate customers: DODEA, DeCA, DLSA, DCAA, DLA, and DARPA (DISA and DTRA were rated as satisfactory or better by just under 70 percent). Five Agencies were rated "satisfactory" or better by fewer than 60 percent of their customers. BMDO and DFAS were over 50 percent; DSS, TMA, and DSCA received very low marks. The survey is largely consistent with the results of the IDA interviews, as we will discuss.
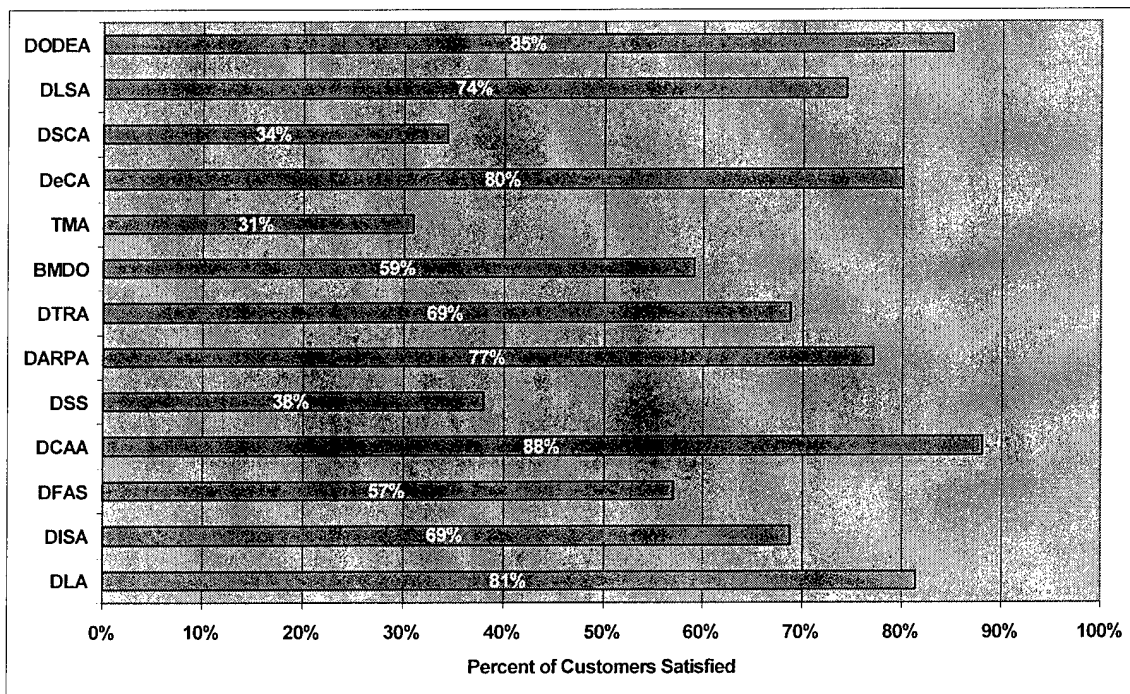
Note: DCMA is included within DLA in this survey.

**Figure B-1. Customer Satisfaction on 1999 Biennial Survey,
Averaged Across Agency Business Lines**

C. Metrics in the Agency Performance Contracts

Performance contracts are annual agreements between the head of an Agency and the OSD Principal Staff Assistant (PSA) overseeing the Agency as the representative of the Defense Management Council. They are counter-signed by the Deputy Secretary of Defense. The contracts set performance goals that are meant to be the focus of Agency management efforts. Goals are projected several years into the future and their accomplishment is monitored. The contracts are developed in working groups that include representatives from customer organizations, OSD, the Joint Staff, and the Agencies. While the CSARTs and Biennial Surveys rely on subjective performance scores, the contracts emphasize objective, quantifiable measures of performance.

The FY 2000 performance contracts are summarized in Table B-1. As in the case of the biennial reviews, they suggest considerable variation in performance among Agencies; at the same time, the interpretation of these goals and metrics is complicated by the fact that the goals were not consistently defined across Agencies. Because the process for setting goals involved a different committee in each functional area, there are variations in the detail, the difficulty in meeting the goals, and the importance of each goal to the Agencies' performance of their missions.

DSS and TMA were two of the lowest scorers in the satisfaction survey, and they also have among the lowest rates of success in meeting goals — about 50 percent each. Three of the highest-ranking Agencies in terms of customer satisfaction (DCAA, DCMA, DoDEA) had middle-of-the-range rankings in terms of meeting performance goals — about 75 percent each. Two of the middle-ranking Agencies in terms of customer satisfaction (DISA, and DFAS) met very high percentages of their performance metrics. The results are also complicated by the fact that they do not distinguish between goals that were missed by very small amounts and those that were missed by a lot.

Table B-1. Success in Meeting Goals in FY 2000 Performance Contracts

	Total Metrics	Goals Met	Goals Not Met	Others	% Met
DCAA	8	6	2		75
TMA	16	7	7	2	50
DISA	51	44	2	5	96
DLA	27	14	11	2	56
DCMA	4	3	1		75
DSS	30	14	14	2	50
DoDEA	17	13	4		76
DFAS	57	48	7	2	87

The metrics used in the signed FY01 performance contracts are examined next. A total of nine Agencies and 182 metrics are represented in the discussion.[3] The analysis indicates both strengths and weaknesses in the design of the contracts. The data are summarized on Table B-2.

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[3] Each Agency deliverable with a distinct goal is scored as a metric. Commitments to develop metrics are generally not counted.

Table B-2. Analysis of Metrics in FY01 Performance Contracts

	DLA	DCMA	DCAA	DFAS	TMA	DoDEA	DeCA	DSS	DISA	Total
IDA Focus Areas										
Efficiency	12	1	8	14	1	4	5	3	12	60
Peacetime Effectiveness	13	2	4	21	13	13	5	21	17	109
Wartime Effectiveness	1	0	0	0	4	0	0	0	2	7
Innovation for JV2020	1	0	0	0	0	0	0	0	5	6
Total	27	3	12	35	18	17	10	24	36	182
Balanced Scorecard										
Financial	3	1	7	7	2	3	6	3	16	48
Customer	14	1	4	13	14	5	1	13	7	72
Internal Processes	5	1	0	12	2	7	3	5	5	40
Strategic Innovation	5	0	1	3	0	2	0	3	8	22
Total	27	3	12	35	18	17	10	24	36	182
Strategy Stage										
Outcome	2	1	0	2	3	5	1	1	0	15

	20	2	12	31	15	10	5	16	15	126
Output	20	2	12	31	15	10	5	16	15	126
Process	5	0	0	1	0	2	4	7	15	34
Input	0	0	0	1	0	0	0	0	6	7
Total	27	3	12	35	18	17	10	24	36	182
Memo										
Principal staff assistant	USD (AT&L)	USD (AT&L)	USD (C)	USD (C)	USD (P&R)	USD (P&R)	USD (P&R)	ASD (C3I)	ASD (C3I)	
Working capital fund	Yes	No	No	Yes	No	No	Yes	Yes	Yes	
Combat Support Agency	Yes	Yes	No	No	No	No	No	No	Yes	

The top section of Table B-2 analyzes the contracts based on four focus areas defined for this study (efficiency, peacetime effectiveness, wartime effectiveness, an innovation for JV2020). The metrics in each contract are scored based on which of these categories they reflect. A total of 169 out of 182 metrics address efficiency and peacetime effectiveness issues; very few address questions of wartime effectiveness, even though DLA, DCMA, and DISA are Combat Support Agencies. One would expect them to offer metrics dealing with such concerns as deployment readiness and surge capability. Actually, the best wartime metrics are in the TMA contract, which addresses readiness of both individuals and units. One would also expect the Combat Support Agencies to address how they are innovating to support JV2020, but only DISA includes multiple metrics in this area. The observed imbalance may reflect greater difficulties in establishing metrics for the last two focus areas. There is a danger that an overemphasis on quantitative metrics could divert management attention away from such areas. This underlines the potential value of the CSART independent review.

The middle section of the table analyzes the contracts based on the Balanced Scorecard approach, which recommends that metrics be balanced among several perspectives, namely financial, customer, internal processes, and strategic innovation.[4] The contracts, in total, seem to be fairly well balanced, with a substantial number of metrics in each category. However there are some gaps for particular Agencies: e.g., TMA financial metrics seem sparse, as do DISA's customer metrics.[5] DCAA has excellent financial and customer metrics but virtually ignores the perspectives of internal process and innovation. For some Agencies, challenging financial and customer metrics may imply innovation and process reengineering actions that are not mentioned explicitly in the contract.

The third section of the table focuses on the relationship between metrics and strategic objectives, distinguishing among measures of outcomes, outputs, processes, and inputs. The analysis reveals relatively few outcome variables, indicating the difficulty of quantifying objectives. DoDEA is an exception, since educational progress is periodically assessed through various tests.[6] Further, the contracts clearly emphasize quantifiable metrics as opposed to enumerating process actions, which appear mainly as reengineering commitments. It is also gratifying to see that only a few input metrics are used.

A fourth area of concern is whether the performance contract metrics are sufficiently high-level and informative to capture the attention of senior DoD management, e.g., the Deputy

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[4] Note that in coding the metrics, we consider unit cost metrics to be "financial" and metrics dealing with prices to be "customer." Further, we assign metrics dealing with strengthening existing processes as "internal" and metrics concerning the introduction of new processes as "innovation."

[5] In fact, the DISA contract includes a commitment to develop customer metrics further.

[6] Of course, it may be misleading to credit or blame DoDEA for the test scores since many determining factors are beyond its control. This can be a problem for any type of goal whose achievement depends on multiple influences, including the cooperation of other DoD components.

Secretary. It is apparent that some Agencies include excessive detail, defining metrics for multiple business areas and individual products without necessarily indicating which are most important or how they relate to strategic objectives.[7] There is an average of 20 metrics per contract, so using the contracts to assess performance may tax the analytical bent of senior DoD managers.

Another difficult issue is identifying tradeoffs among performance goals, and linking goal improvements to resource requirements. Hopefully, these matters are considered during contract negotiations, but the signed contracts themselves reflect only the negotiated results. This could make it difficult for senior managers, who may not have participated in the negotiations, to buy into the goals.

D.   Government Performance and Results Act (GPRA)

We also considered GPRA performance evaluations and metrics in this review, and we found practices to be inconsistent across Agencies and types of programs. There are areas and organizations where GPRA has been implemented successfully. For example, the Department-wide Defense Science and Technology Program uses external peer review panels to develop GPRA assessments for technical programs. On the other hand, there are Agencies and programs in which GPRA processes and metrics have limited visibility, possibly because they are regarded as being adjuncts to, rather than integral elements of, the Agencies' primary mission activities. Recommendations provided in this report concerning improved use of Performance Contracts and metrics also apply for GPRA implementation within the Agencies. Efficiencies will result if the same metrics are used for GPRA and Performance Contract reporting and assessments.

V.   AGENCY EXPERIENCE DESIGNING METRICS

The Defense Agencies have accumulated significant experience designing and improving management metrics for their strategic planning systems and performance contracts. This section describes some key lessons learned by the Agencies, their customers, and other stakeholders. The discussion addresses practical issues that arise in the course of implementing management metrics.

A.   Customer Satisfaction

Satisfying customer requirements is a principal mission for most Defense Agencies, and one of the main focus areas for management metrics. However, devising suitable metrics is difficult and cannot be done by an Agency in isolation. Particular user organizations are interested in how an Agency meets their specific needs, which may differ from the needs of other

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[7]   The DeCA contract, however, does include an introductory discussion of DeCA's strategic vision.

users. To enable Agencies to improve customer satisfaction, narrowly defined metrics may be needed that link performance to satisfaction, based on input from users.

For example, in measuring the availability of inventory to meet customer orders, DLA found that it had to define measures for particular classes of items rather than for all items grouped together. Some Agencies have found that customer satisfaction surveys do not provide enough information to identify actions needed to improve satisfaction; for its own customer satisfaction surveys, DFAS decided to use focus groups to tailor questions to particular customers and products. Some Agencies negotiate service-level agreements that address the requirements of particular customers. A number of Agencies negotiate performance metrics with their customers or ask their boards of directors, which include customers, to provide input on needed metrics, and then review actual performance.

B.   Goals

Performance goals must be established in order to assess the actual level of performance revealed by management metrics. This is a crucial step. Some Agencies have been accused of proposing performance contract goals that are easy to achieve (picking low-hanging fruit). Some customers have been accused of demanding levels of performance that would be unreasonably expensive to achieve.

Benchmarking is sometimes a useful approach for identifying reasonable goals. For example, one study compared education performance under DoDEA with what was achieved at nearby school districts and at the state and national levels. DCAA has benchmarked its costs against the Big Five public accounting firms, using data on Big Five charges under contracts with GAO and DOL. However, a potential problem with benchmarking is that Defense Agency services may not have an exact civilian counterpart, making an apples-to-apples comparison difficult. For example, the military payroll accounts handled at DFAS may be much more complicated than cases in the civilian sector. To make valid comparisons, benchmarking may require time-consuming and costly study.

Prescribing an improving trend for a metric is useful in some cases, but this approach still begs the question of what the ultimate goal should be. In some cases, performance is already good enough and attention should be focused on other areas, based on a strategic look at the Agency's mission and priorities. Most importantly, potential goals should be traded off against the costs of achieving them. Customers should be aware if the attractive goals they subscribe to are expensive. Thus, when Agencies solicit input from their customers, they could involve both the programmers who plan customer resources and the users who consume services. Potentially, this kind of dialogue could establish a link between performance metrics and the PPBS. Similarly, the Agency must be able to link its internal metrics for effectiveness and efficiency; unfortunately, most Agencies do not have the activity-based cost systems needed to support such linkages.

Potential unintended consequences should be considered when setting performance goals. For example, if DLA has a limited budget for stocking parts, improving availability of the parts needed by one customer may necessitate a reduction in the availability of the parts needed by others. Similarly, changing a process to improve accuracy may reduce responsiveness. The tradeoffs needed to achieve performance goals should be recognized up front.

Some Agencies have defined goals for their performance contracts that are contingent on specified assumptions. For example, they agree to achieve a particular unit cost provided that the number of units demanded by customers reaches some threshold. This may be a tip-off that the metric in question is flawed, measuring a result that is not really attributable to the Agency's performance. However, it does raise the interesting question of what kind of performance should be expected from Agencies when the environment unexpectedly changes.

C. External Dependence

In many cases, services are provided to the DoD community through end-to-end processes that depend on the contributions of several organizations. From the perspective of the user, what is important is how well the end-to-end service is provided. However, from the perspective of Agency oversight, each organization's specific contribution is relevant. Thus, Agency overseers may need more detailed metrics than customers want. At the same time, customers may blame poor performance on one Agency, not knowing that the cause of the problem resides elsewhere. A key issue is thus providing the right kind of visibility to performance in cases of interdependence.

A common example is the processing of employee pay, which is accomplished through DFAS systems that depend on data input from the Services. If the DFAS output is late or erroneous, it may be due to a glitch at DFAS or because the input data DFAS needs are late or erroneous. In either case, the employee suffers. Resolving such problems may require reengineering of the end-to-end system.

In other cases, Defense Agencies provide services that rely in part on services from other Defense Agencies, e.g., many Agencies depend on DCMA services. In yet other cases, an Agency may rely on the Services to implement the Agency's contribution, e.g., DARPA's effectiveness may depend on whether the Services decide to field DARPA-developed technology. In order to hold any particular Agency accountable for its own performance, it is essential that metrics break down the contribution of each Agency to these end-to-end and joint processes. For purposes of the ultimate customers, end-to-end metrics and accountability also are needed.

D.   Implementing Metrics

As the discussion makes clear, defining the right metrics is not a simple matter. Further, implementing them may take time and require substantial study.

In their early performance contracts, several Agencies committed to developing metrics for use in future contracts. In contract, DFAS agreed to a recurring series of activity-based costing and benchmarking studies, covering nine functional areas over a five year cycle. DSCA contracted for a performance-based costing system that, among other things, will enable it to measure its performance. Several Agencies conduct or contract for their own customer satisfaction surveys. Presumably the payoff from such efforts is considerable, but the cost should be recognized.

E.   Internal Systems

The Defense Agencies all have internal planning systems that utilize metrics to some degree. Most prepare strategic plans and internal performance plans. Such efforts can improve an Agency's understanding of its mission and priorities and performance possibilities. While internal metrics may be designed to help an Agency manage itself, they may also provide a foundation for building high-level metrics for use in performance contracts with the Agency's overseers. At the same time, they can provide a means for implementing high-level goals negotiated with those overseers.

In some cases, internal systems include performance contracts between the Agency director and subordinate managers. These contracts include a mix of quantitative metrics and specific improvement projects. DCMA has implemented an Integrated Management System to integrate strategic planning, PPBS, and performance plans for each of its offices. However, DCMA does not appear to have linked this system to the metrics included in its performance contract with OSD. On the other hand, DCAA explicitly plans to maintain consistency between its internal planning metrics and its performance contract metrics.

F.   High-Level Metrics

High-level summary metrics are needed to enable executives outside an Agency to assess its performance. Such metrics are needed at the level of the DEPSECDEF and to some extent for the PSA and high-level customer executives as well. Such people may lack the time or expertise to digest an elaborate set of specialized metrics. However, defining summary metrics that enable a meaningful performance assessment can be difficult.

Summary metrics can be formed by aggregating or averaging performance or defining related indicators that respond to changes in the detailed metrics of interest. Metrics associated with top-down goals may be high-level by definition. DCAA's strategic plan includes specific goals for increasing efficiency, while its performance contract includes an indirect indicator of auditing efficiency. The danger in using summary metrics is that they will obscure some

problems in Agency performance and may fail to signal when a more in-depth probe of Agency metrics is needed. Some aggregate metrics included in the DFAS contract were criticized because they did not pinpoint performance as it affected particular customers.

One example of a summary metric is a kind of return on investment measure discussed by DCAA. That is, DCAA's audits result in substantial claimed savings or cost avoidance in defense contracts. The ratio of audit savings to DCAA's operating costs measures the payoff to the government for funding DCAA. This is an interesting example of a summary metric. However, validating savings claims could be a major hurdle and overemphasizing contract savings could adversely affect DCAA's professional objectivity.

G.   Exceptions to Using Management Metrics

Management metrics are useful for assessing peacetime efficiency and effectiveness, particularly for Agencies that provide recurring services in large volumes. While the use of metrics in other cases should be explored, there are some examples wherein the use of metrics programs, such as performance contracts, could be superfluous or even counterproductive.

For example, some 80 percent of BMDO's program is subject to review and control under the major defense acquisition process. That process is replete with metrics for cost, schedule, and technical performance. BMDO is also subject to review by special independent review teams. The incremental payoff from adding another layer of metrics is not clear. In fact, BMDO is not required to negotiate a performance contract, although it does prepare a strategic plan.

DARPA is a case where developing suitable metrics would be extremely difficult and using unsuitable metrics could do great harm. DARPA's mission is to explore high-risk technologies with potentially large defense and national payoffs. Metrics that focus on the transition of technologies into actual use could deter DARPA from exploring high-risk areas. Further, since DARPA relies greatly on the Services to put its technologies into practical use, transition metrics might induce DARPA to explore only technologies that the Services are likely to implement rather than performing the useful role of challenging existing assumptions. Oversight for activities devoted to innovative R&D requires great sensitivity; it is a challenge in the private sector as well.

DTRA, like BMDO and DARPA, is not required to negotiate a performance contract. Much of its work involves technology development and other nonrecurring tasks. However, DTRA does do strategic planning and it participates in DoD's planning process for science and technology. There may be some parts of DTRA's mission that could be candidates for management metrics, e.g., its recurring work on export controls and on-site inspection.

In general, oversight for improvement projects may call for traditional project management techniques. Performance contracts can then include goals for improved performance, without necessarily spelling out the projects needed to make improved performance possible. Developing management metrics to address readiness for contingencies is likely to be difficult. However, high-level guidance to improve readiness reporting requires that it be formally addressed, however.

VI.   ADDITIONAL EXAMPLE: ARMY METRICS FOR SUPPORT ACTIVITIES

Most DoD support activities are not managed by Defense Agencies. The military Services train personnel, manage bases, repair spare parts, and overhaul major weapons systems. In many cases, metrics are used to help the Services manage their support activities. Schools may track the percentage of students successfully completing courses and the cost per graduate. Repair depots may track the length of time it takes to complete a typical repair, or the fraction of parts that are found to be beyond repair. This section will focus on a particularly noteworthy example of Service use of metrics in managing support activities: the case of Army base operations.

Starting in 1995, the Army divided base operations up into 95 areas of support, which it calls services. These fall into eight broad categories: personnel and community, information technology, operations, logistics, engineering, resource management, acquisition, and command and staff. The Army assigns operating costs at 125 bases to the services. This is an example of activity based costing.

The Army also measures the quantity of each of services provided at every base. This allows it to compare cost per unit of output across bases. Cost per unit of output is a very useful metric in assessing the provision of base services, but it is not a complete metric: cost per unit of service can be low for two reasons. A base may be a particularly efficient producer of the service ,or the quality of the service may be unusually low.

Where possible, metrics are being developed to measure the quality of service. This allows bases to be evaluated on the basis of whether they are providing the desired quality and on whether they are keeping costs relatively low in view of both the quantity and quality of service being provided. In some cases, both cost and quality can be compared to benchmarks derived from the private sector, so that bases can be judged not only against each other, but also against commercial standards.

The approach the Army has taken to managing its base operating support functions has three key elements:

- Associating costs with specific product lines, using activity-based costing
- Measuring the quantity of output (or the scale of operation) for each product line
- Where possible, measuring the quality of output for each product line.

These elements are applicable to many kinds of support activities, not just to base operations.

VII.   NEXT STEPS

Effective use of management metrics to assess Agency performance depends on the following conditions:

- Senior OSD management must care about Agency performance
- Metrics must provide meaningful visibility into performance
- Agencies must have sufficient incentives to meet expectations.

The first and last of these conditions are addressed at length in the main body of this report. This section addresses the middle condition, namely, making metrics good enough to meet the needs of motivated overseers and Agency managers.

The cooperative processes used to establish goals in Agency performance contracts should be strengthened. An informed dialogue should take place among customers, Agency managers, the OSD Comptroller, the PSA, PA&E, and other overseers and stakeholders. Relevant metrics should be identified. Performance tradeoffs and the funding implications of alternative performance levels should be explored. The end result should be a set of goals that is fiscally responsible, responsive to the requirements of Agency customers and overseers, and suitable as a basis for the PPBS review. Of course, depending on overall DoD resources and priorities, particular customers may not be satisfied with the levels of service that result from this process.

The conceptual art of defining metrics should be deepened. The many unresolved issues include especially how to construct systems of metrics that recognize the needs of particular customers, yet build to high-level summary metrics that provide meaningful performance visibility to senior executives. For example, if an Agency negotiates service level agreements with its customers, is it meaningful to measure the proportion of those agreements the Agency does not fully accomplish, or, are some deficiencies and agreements more important than others? Other difficult issues include defining metrics that pinpoint what an Agency should be held accountable for, separating out results that the Agency cannot control, e.g., major changes in the planning environment or shortfalls in service due to inadequate budgets. Similarly, metrics are needed to assess the performance of end-to-end processes, while maintaining the individual accountability of the several organizations that may jointly provide the resulting service.

Attention particularly should be focused on metrics to assess wartime effectiveness and innovation in support of JV2020. The under-representation of these areas in the performance contracts reflects the difficulty of defining suitable metrics. While the CSARTs address these areas, they rely on subjective numerical scoring techniques to quantify performance. How

effective is subjective scoring compared to using objective, quantifiable metrics? What kinds of objective metrics can be defined for these areas?

Relationships between peacetime and wartime aspects of performance should be explored. Metrics and goals should be based on an understanding of how peacetime and wartime activities contribute to achieving DoD's overall objectives. Synergies and tradeoffs should be recognized and consistent goals should be established that promote the overall mission in an integrated way. Conceptually, this is a very challenging issue. For example, if efficiency is defined as minimizing the cost of achieving wartime and peacetime goals, should only peacetime costs be considered? If wartime costs are relevant, how should they be taken into account?

Information systems should be reengineered to provide data in the form needed for calculating desired metrics. That includes activity-based cost information tied to the PPBS; it also includes capturing detailed information on the provision of services by the Agency. Further, consistency should be maintained between an Agency's internal planning system and the metrics generated for its performance contract with OSD.

Finally, the various assessment methods should be used in concert to ensure that all important aspects of performance are covered. At the same time, there should be a division among such vehicles as the CSART, the Biennial Survey, and the performance contracts, with each being used where it is most advantageous. For example, the CSART may be particularly effective for assessing readiness, while performance contracts may be especially strong in assessing peacetime efficiency and effectiveness for recurring services. Any remaining gaps should be addressed, e.g., assessing readiness at Agencies not covered by the CSART.

ANNEX C

CHRONOLOGY OF MAJOR AGENCY ACTIONS AND REVIEWS

BOB FABRIE

SUMMARY TABLE

1947-49

1947 – National Security Act of 1947 (National Military Establishment, NSC and CIA)

1947 – Armed Forces Special Weapons Project

1949 – Amendments to the National Security Act (Established DoD as an Executive Department.)

1950-59

1952 – Defense Supply Management Agency (disestablished in 1953)

1952 – National Security Agency

1953 – Assistant Secretary of Defense for Supply and Logistics established

1955 – Single manager system for logistics

1958 – Defense Reorganization Act of 1958

1958 – Advanced Research Projects Agency

1959 – Defense Atomic Support Agency (DASA) formed as the successor to the Armed Forces Special Weapons Project

1960-69

1960 – Defense Communications Agency

1961 – Defense Intelligence Agency

1961 – Defense Supply Agency

1964 – Defense Contract Administration Service (CAS) assigned to DSA

1964 – Three separate overseas school systems operated by the Military Departments combined into the DoD Overseas Dependents School System, which was divided into three geographic areas, each operated by a designated Military Department

1965 – Defense Contract Audit Agency

1970 – 79

1971 – Defense Security Assistance Agency

1971 – Defense Nuclear Agency (DNA) established as the successor to the Defense Atomic Support Agency (DASA)

1972 – Defense Mapping Agency

1972 – Defense Civil Preparedness Agency (later transferred to FEMA)

1972 – Defense Investigative Service

1972 – Uniformed Services University for Health Sciences was statutorily created by PL 92-426, the Uniformed Services Health Professions Act of 1972

1974 – Office of Civilian Health and Medical Program of the Uniformed Services (OCHAMPUS) established as a DoD Field Activity

1976 – Defense Audit Service

1976 – Office of Overseas Dependent Education

1977 – The Armed Forces Information Service

1978 – Agencies transferred from SECDEF to Principal Supervisory Assistants

1979 – Antonelli Review of Agencies
1979 – Defense Audiovisual Agency (later disestablished)
1979 – The Overseas Dependent School System and the Office of Overseas Dependent Education became the DoD Dependent Schools (DoDDS).

1980-89

1981 – Defense Legal Services Agency
1981 – Public Law 97-35 transferred responsibility for Section 6 Schools (installation operated schools in the U.S.) from the Department of Education to DoD (later became Domestic Dependent Elementary and Secondary Schools (DDESS) and part of DoDEA)
1984 – Strategic Defense Initiative Office
1985 – The Defense Medical Systems Support Center
1985 – The Defense Technology Security Administration
1985 – Locher Review: "Defense Organization: Need for Change"
1986 – Packard Commission Report
1986 – Goldwater-Nichols Act
1986 – Defense Medical Support Activity
1987 – Goldwater-Nichols directed "Reassessment of DoD Agencies and DoD Field Activities"
1989 – Secretary of Defense, "Defense Management Report" to the President
1989 – Secretary of Defense directed DoD Study of the Military Commissary System

1990 ...

1990 – DLA missions expanded
1990 – Military Department Section 6 Schools consolidated under OSD
1990 – Defense Commissary Agency
1990 – Defense Contract Management Command
1991 – Defense Finance and Accounting Service
1991 – Defense Information Systems Agency (assumes DCA missions)
1992 – The Defense Medical Program Activity (DMPA) established as DoD Field Activity (evolved from the Defense Medical Support Activity)
1992 --The Department of Defense Education Activity (DoDEA) (responsible for DoDDS and Section 6 Schools)
1993 – The Strategic Defense Initiative Organization re-designated the Ballistic Missile Defense Organization
1993 – Bottom Up Review
1994 – PL 103-337 renames Section 6 Schools as the Domestic Dependent Elementary and Secondary Schools (DDESS)
1995—Report of the Commission on Roles and Missions
1995 – TRICARE Marketing Office established with a sunset provision to be disestablished by September 30, 1996
1996 – The Defense Nuclear Agency reorganized into the Defense Special Weapons Agency

1997—Quadrennial Defense Review & National Defense Panel Report

1997 – Defense Reform Task Force Report

1997 – Defense Reform Initiative Report

1998 – The TRICARE Management Activity (TMA) established

1998 – Defense Threat Reduction Agency established merging OSIA, DSWA and DTSA and elements from the Office of the Secretary of Defense

2000 - The Defense Contract Management Agency established (formerly within the Defense Logistics Agency)

CHRONOLOGY

1947– 1949

The National Security Act of 1947 created the National Military Establishment (NME) on 26 July 1947. The Act also created the position of Secretary of Defense. Three Executive Departments remained: the Army, the Navy and the Air Force, each headed by a Cabinet-level Secretary.

Title I established the machinery for coordinating national security, including the National Security Council (NSC) and the Central Intelligence Agency (CIA).

The legislation sanctioned three existing activities – the Joint Chiefs of Staff, the Munitions Board, and the Research and Development Board – to assist the Secretary of Defense with his duties.[1]

The 1949 Amendment to the National Security Act (PL 81-216) established the Department of Defense as an Executive Department. The Secretary was made the principal assistant to the President in all matters relating to the Department of Defense.

The 1949 Commission on the Organization of the Executive Branch of the Government (First Hoover Commission) was established, as well as the Task Force on National Security Organization (the Eberstat Task Force).[2]

1950– 1959

In July 1952, the Defense Supply Management Agency was established (PL 82-436). Legislation (PL 82-534) also established the Director of Installations within OSD, with wide powers over facilities and construction.

President Truman established the National Security Agency (NSA) in 1952 under the direction of the Secretary of Defense to coordinate communications, intelligence, and signals security.

In 1952, the Defense Cataloging and Standardization Act transferred the Munitions Board's functions to the newly established Defense Supply Management Agency.

The 1953 Reorganization Plan #6, based on recommendations of the Rockefeller Committee to strengthen the authority of the Secretary over all elements of the Department of Defense, became effective on June 30, 1953.

In 1953, the Munitions Board, the Research and Development Board, the Defense Supply Management Agency, and the Director of Installations all were abolished and their functions transferred to the Secretary of Defense. An Assistant Secretary of Defense for Supply and Logistics was established.

In 1955, DoD initiated the Single Manager System for logistics. Under the system, the Secretary of a Military Department was named as the single manager for a commodity

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[1] The Department of Defense 1947 – 1997, Organization and Leaders, Historical Office, Office of the Secretary of Defense 1997, page 9.
[2] The Department of Defense 1944 – 1978, Historical Office, Office of the Secretary of Defense, 1978.

group, making the Services responsible for all steps in the supply cycle except for the computation of gross requirements and final distribution to the user units.

President Eisenhower requested Secretary of Defense Neil H. McElroy to examine DoD's organizational structure. The Defense Reorganization Act of 1958 (PL-599) established the basic structure of the Department of Defense, until modified by the Goldwater Nichols Act in 1986. The Act made explicit the authority of the Secretary of Defense to consolidate and assign to a single organization, as the Secretary deemed appropriate, all services and support activities common to more than one Military Department. Centralization of authority and the consolidation of common services were seen by Defense observers, in and out of Congress, as a necessary step to curb the overlap and expense inherent in the operations of three separate Military Departments. The objective of consolidation was to reduce duplication and inter-Service rivalries, and allow greater economies of scale.

> Section 202 of the 1958 Reorganization Act: *"Whenever the Secretary of Defense determines it will be advantageous to the Government in terms of effectiveness, economy, or efficiency, he shall provide for the carrying out of any supply or service activity common to more than one Military Department by a single agency or other such organizational entities as he deemed appropriate"*

Public Law PL 85-325 created the Advanced Research Projects Agency. As a result of the "Sputnik" surprise, Congress charged that the President had failed to allocate funds for research and inter-Service rivalries, and that this was derailing timely and efficient weapons' development and deployment. The Secretary of Defense issued a charter for the Advanced Research Projects Agency within the Office of the Secretary of Defense on 7 February 1958 and placed it under the direction of a newly created position of Director for Defense Research and Engineering.

The *Defense Atomic Support Agency (DASA)* was formed by 1 May of 1959. DASA was the successor to the Armed Forces Special Weapons Project (AFSWP), which had received its charter as a joint organization from the Secretaries of War and Navy prior to the enactment of legislation creating the Department of Defense. (In 1971, the DASA became the Defense Nuclear Agency under Secretary Melvin R. Laird.)

1960 – 1969

President Eisenhower requested Secretary Charles E Wilson in 1957 to survey military communications and to report on the possibility of reducing any duplication of facilities.[3] Secretary of Defense Thomas S. Gates Jr. established the *Defense Communications Agency (DCA)* to exercise operational control of the long haul, point-to-point communications facilities of the Military Departments on 12 May 1960.

White House concern about the management of all Government intelligence activities resulted in an interagency study chaired by Lyman Kirkpatrick, Jr., Inspector General of the CIA. Concurrently, Secretary of Defense Thomas Gates asked the Joint Chiefs of

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[3] OSD report: "Reassessment of Defense Agencies and Field Activities," Appendix B.

Staff (JCS) to review the adequacy of Defense intelligence activities. The Joint Study Group reported a number of deficiencies in the military intelligence system, including duplication of requirements, collection activities, and publications. The Joint Study Group recommended to the National Security Council (NSC) that they consolidate Defense intelligence efforts. The *Defense Intelligence Agency (DIA)* was established on 1 August 1961. The DIA was to report to the Secretary through the JCS with overall responsibility for managing and controlling Defense intelligence resources.

The Defense Supply Agency (DSA) was created on 6 November 1961 to consolidate common supply elements of the Military Services and consolidate cataloging and standardization systems for defense materiel. This action resulted from the recommendations of a panel of high-ranking defense officials formed by Secretary McNamara (Project 100). Experiences of shortages of materials and productive capacity in World War II and providing logistical support to forces fighting in Korea had motivated the Department to better coordinate logistical planning and procurement activities to achieve cost reductions and more efficient field operations. The DSA began with about 87,000 different items and rapidly grew to 1,729,000 items by 1968. The DSA gradually took over the materiel management of bulk petroleum, and most automotive, clothing, textiles, subsistence, and medical items in the following years. The decision to establish the DSA was a major milestone in the evolution toward a system of integrated logistic support. The DSA took over management responsibility for property disposal and redistribution functions in 1973. The DSA was re-designated the Defense Logistics Agency (DLA) in 1977.

Defense Contract Administration Services (DCAS). In June of 1964, McNamara consolidated the contract management offices of the Military Departments and the DSA under the DSA to provide common support service to DoD and NASA procurement offices. Secretary Robert McNamara established Project 60 in May 1962 to develop a plan for establishing uniform field contract management functions. Project 60 had the following objectives: 1) improve the management of contracts in the field; 2) provide more timely and accurate support to the buying activities and program managers; 3) minimize the duplication of effort; 4) decrease operating costs; and 5) minimize government controls over industry. Project 60 envisioned an Agency of approximately 19,200 personnel operating in 13 separate districts and a headquarters staff of fewer than 600[4]. This is far less than the nearly 45,000 personnel that were then currently performing these same functions under the individual Military Service organizations.

The Defense Contract Audit Agency (DCAA). Secretary of Defense McNamara directed consolidation of several Service contract audit offices into a single Defense Contract Audit Agency as part of administration initiatives to provide more efficient and economical administration and management of common supply and logistical support activities. DCAA was chartered on 9 June 1965. The consolidation of contract audit functions was a direct result of Project 60, an inter-Service committee study on the feasibility of consolidating contract management functions. Project 60 recommended the consolidation of contract management functions under the newly formed DSA in 1964 and suggested that contract audit functions might also be consolidated.

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[4] Project 60 Report, Volume 1, page 63.

1970 – 1979

By the 1970s, there was concern that centralized management had been carried too far. President Nixon and the Secretary of Defense appointed the Blue Ribbon Defense Panel under the chair of Gilbert W. Fitzhugh. The report issued on July 1970 proposed dramatic changes to the Department of Defense, extending the direct control of the Secretary over the military establishment and diminishing the nature of the Joint Chiefs of Staff and Military Services. The major recommendations were not adopted.

There were some findings and a few changes regarding Agencies as a consequence of the Blue Ribbon Report. The Blue Ribbon Defense Panel reported that there were a number of non-combatant functions common to more than one Military Department that had not been centralized under a Defense Agency. Melvin R. Laird subsequently established four new agencies:

- The Defense Mapping Agency (DMA) began operations on 1 January 1972. President Nixon had directed the consolidation of the three Military Department mapping organizations to provide for optimum efficiency and economy of production without impairing legitimate requirements of the separate Military Departments.

- The Defense Security Assistance Agency (DSAA) began operations on 1 September 1971. It was responsible for supervising, administering, and executing U.S. Military Assistance and Military Sales Programs. The Agency had direct access to the Secretary; however, the Assistant Secretary of Defense for International Security Affairs assumed responsibility for DSAA staff supervision and oversight.

- The Defense Civil Preparedness Agency (DCPA) was established as the successor to the Army's Office of Civil Defense. The Agency functions transferred from the Army on 5 May 1972. In July 1979, the Defense Civil Preparedness Agency was dissolved and civil defense responsibilities were transferred to the Director of FEMA.

- The Defense Investigative Service (DIS) began operations on 1 October 1972. It took responsibility for and central control over personnel security investigations. The Panel had reported in a supplemental report that the Military Departments differed on standards for investigations for access to classified information and that each was reluctant to accept the results of investigations undertaken by another Service.

The Office of Civilian Health and Medical Program of the Uniformed Services (OCHAMPUS) was established as a DoD Field Activity under the direction of the Assistant Secretary of Defense for Health Affairs (ASD (HA)) on December 4, 1974, following Congressional action transferring funds for the CHAMPUS program from the Military Departments to the ASD(HA). The transfer was made to control costs, assure better utilization of military medical facilities, and prompt DoD to make a coordinated and thorough study of its medical operations. Since inception of the CHAMPUS program in 1956, the Army had served as the executive agent. The growing scope and complexity

of the medical programs rendered this arrangement ineffective, and management oversight was transferred to the ASD(HA) in 1972; it was later established as a Field Activity.

Secretary Rumsfeld established the Defense Audit Service (DAS) on 14 October 1976.

In 1976, Secretary Rumsfeld transferred control of the Defense Intelligence Agency (DIA) from the JCS to the Office of the Secretary of Defense.

In 1976, the Office of Overseas Dependents Education was established as a Field Activity under the ASD(M&RA). Prior to 1964, each Military Department operated its own dependent schools overseas under their own educational standards. In 1964, the three school systems became the DoD Overseas Dependents School System under OSD administration, with the goal of establishing common standards and practices. Each Military Department was assigned responsibility for all schools within a geographic region: the Army in Europe, the Navy in the Atlantic area, and the Air Force in the Pacific. Congressional reviews raised concerns that there were still three school systems rather than a single system and that OSD was not exercising sufficient oversight and control. The DoD Dependent Schools (DoDDS) was established in response to these concerns. The Defense Department Overseas Education Act (PL-95-561) codified the existence of DoDDS in 1978.

Secretary of Defense Harold Brown expressed concern that the Secretary's span of control was too broad for effective management. In 1978, he transferred ten of the eleven Agencies reporting to him to the control of an Under Secretary or an Assistant Secretary of Defense in order to reduce his span of control.[5] Influenced by these reservations and a general feeling by many defense observers that "those functions (support services) are more extensive and less effective than they might be," the President, in September 1977, requested an unconstrained examination of alternate reforms in organization, management, and programs in the Department.

In September 1978, a review of Defense Agencies was initiated as part of the Defense Organization Study of 1977-1980[6]. The Defense Agency Review, directed by MG Theodore Antonelli (USA Ret), examined the roles, missions, and functions of the Defense Agencies to determine what problems existed and which ones might be resolved through organizational changes. Some major conclusions of the DOS 77-80 Defense Agency review are summarized in the accompanying Table:[7]

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[5] U.S. Department of Defense, Annual Report to Congress for FY 1979.

[6] Secretary Brown initiated a comprehensive review in November 1977 known as the Defense Organization Study of 1977-1980 (DOD 77-80). The studies were terminated before a final report was submitted to the President. *Reappraising Defense Organization*, by Archie D Barrett, National Defense University Press, 1983.

[7] Report to the Secretary, Defense Agency Review, Theodore Antonelli, (MG USA Ret.), March 1979.

Table C-1. Findings of the Antonelli Review of the Defense Agencies

1. Insufficient responsiveness of the Defense Agencies in supporting the operational forces. The issue: Do the Defense Agencies, which provide support and services to the combatant forces, have the capability to assure readiness and responsiveness needed in a crisis.

   ❖ The review found shortcomings in the readiness and responsiveness of the present system of supporting operational forces in times of crisis and war.

   ❖ The Agencies were deficient in planning for contingencies, conducting combat related tests and exercises, developing of a system to allocate wartime priorities among clients, and establishing or participating in coordinating mechanisms between operating forces and the supporting agencies. There was little systemic linkage between contingency planning of the Joint Staff and many of the Agencies supporting the operating forces.

   ❖ The problem appeared to be centered on the drive for peacetime efficiency as opposed to wartime effectiveness. The study found little evidence of up-to-date planning for contingencies in some of the Agencies reviewed.

2. Questionable improvement in effectiveness, economy, and efficiency, which is the legislative criterion for creating an Agency.

   ❖ The study concluded that the Agencies in general were well managed; they could not make the case that they had improved the effectiveness, economy, and effectiveness of providing common supply and services to operating forces. The review concluded that there is no objective answer to this question, since no simple and agreed objective measure of performance, such as profit and loss, exists for the Agencies.

3. DoD control and supervision is inadequate.

   ❖ The Defense Agencies have a degree of autonomy that is counterproductive to the objectives and policies of the Department. The Defense Agencies were considered independent and none was subordinate to any of the Services or other client(s).

4. In the analysis based on the DOS 77-80,[8] the Secretary's delegation of oversight to his staff assistants helped reduce his span of control, but did not resolve the broader problem associated with supervising a number of specialized operational activities at the OSD level. This increased the management load of already overburdened Under Secretaries and Assistant Secretaries of Defense. "They, like the Secretary himself, have broad and demanding responsibilities for policy that do not permit them to devote much time for supervision."[9]

   ❖ Oversight policy, program, and budget direction of the various Agencies devolved to various subordinate staff offices. The responsibility and resources of the desired overseers of the Agencies appeared to be unbalanced.

   ❖ Compounding the problem is that guidance and direction in many facets of the Agencies' activities emanate from other DoD staff organizations. Agencies, on the other hand, perceiving this ambiguity of authority in the multiple sources of guidance and direction, frequently sought guidance from those offices sympathetic to the Agency's desires, further diluting the authority of the OSD officers responsible for their direction and performance.

   ❖ The Agencies are given considerable amounts of direction or guidance but little management supervision or leadership, and the Agency is left to select which guidance it chooses, if any.

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[8] Barrett, p 73.
[9] Defense Agency Review, Theodore Antonelli, (MG USA ret.) March 1979, p 36.

Table C-1. Findings of the Antonelli Review of the Defense Agencies (continued)

5. The Agency structure complicates an already complex set of relationships between the OSD, Military Services, the JCS, and Unified and Specified Commands. Specific problems included the authority to levy requirements on the other DoD components without commensurate responsibility, reductions in efficiency resulting in inadequate coordination, and the lack of participation by combatant commanders in review of Agency budgets. These problems include the following:

❖ The authority of the Services to levy requirements on Agencies without commensurate fiscal responsibility.

❖ The authority of some Agencies to levy requirements on the combatant commands and the Military Services without commensurate responsibility for their operating missions.

❖ The existing budgetary process for Defense Agencies which provide critical communications, intelligence, mapping, charting and geodesy, and logistic support to the combatant commands does not provide any formal consideration of the CINC's priorities in the decision process on the Agency budgets.

In October 1979, Secretary Brown created the Washington Headquarters Service (WHS) as a field activity of OSD, permitting the transfer of hundreds of billets from OSD to WHS.

In June 1979, Secretary Brown established the *Defense Audiovisual Agency (DAVA)*. (The Agency was disestablished on 30 September 1985 and its functions were transferred to the Military Departments.)

1980 – 1989

Secretary Casper W. Weinberger believed the organizational structure within DoD was sound and required little or no change. He directed the following changes in Agency structure:

- The *Defense Legal Services Agency (DLSA)* was created to provide legal advice, services, and support for specified organizations and functions in the Department in August of 1981. The major objective was the prevention of duplication of effort between the DoD office of the General Counsel and the General Counsels of the Defense Agencies, and the promotion of improved information exchange and coordination of legal activities throughout the DoD.

- The FY 1983 National Defense Authorization Act established the Office of the Inspector General, assuming the duties of the Assistant to the Secretary of Defense (Review and Oversight) that had been in place since April 1981.

In 1981, the Omnibus Budget Reconciliation Act (Public Law No. 97-35) transferred responsibility for the Section 6 schools (installation operated schools in the U.S.) from the Department of Education to the Secretary of Defense. For the first year after this transfer, the Military Services funded the operation of the schools because budget authority had not been provided. While budget authority for operation and maintenance of the Section 6 schools was granted to DoD in 1982, responsibility for this DoD school

system was not centralized in the Office of the Deputy Assistant Secretary of Defense for Personnel Support, Families and Education until 1990. In 1994, Public Law No. 103-337 replaced the Section 6 legislation and the school system was renamed the Department of Defense Domestic Dependent Elementary and Secondary Schools (DDESS).

The Strategic Defense Initiative and *Strategic Defense Initiative Organization (SDIO)* were created by National Security Decision Directive (NSDD 119). President Reagan signed this on January 6, 1984 and the SDIO was established in April 1984. Senator Barry M. Goldwater, the Chairman of the Senate Armed Forces Committee, directed a full scale and comprehensive study of the organization and functioning of DoD under the direction of staff assistant James R. Locher III. The Staff Report to the Committee on Armed Services United Stares Senate, "Defense Organization: The Need for Change," was completed on October 16, 1985. It provided a comprehensive assessment addressing the DoD organizational structure and decision-making process, including the inability to fully integrate distinct military capabilities, the functions and powers of JCS and Unified Commands, the PPBS and procurement process, and civilian control of the military.

Table C-2. Defense Agency findings of the Locher Review

The "Locher Report" found that many offices within OSD were neither adequately supervised nor coordinated due to the Secretary's excessive span of control.

❖ Given that the Secretary and the Deputy Secretary had to spend much of their time on relations external to the Department, they were too busy to actively manage OSD and those Defense Agencies that reported directly to them; they could only manage by exception – when a problem arose.

❖ Defense Agencies were poorly controlled and supervised by OSD.

❖ The focus of OSD was on the budgets of Military Departments and not on the budgets of Defense Agencies. A negative consequence of this inadequate supervision was that Defense Agencies were more orientated to peacetime activities than to supporting combat forces.

The report provided several options for improved control of the Defense Agencies.

❖ Create two additional Under Secretaries for evaluation and readiness, sustainability, and support. Agencies would be aligned under the Under Secretaries, thus reducing the Secretary of Defense's span of control; e.g., DIA and NSA would report to an Under Secretary instead of the Secretary of Defense. The DCAA would report to the Under Secretary for Evaluation and the DLA to the Under Secretary for Readiness, Sustainability, and Support.

❖ Create three Deputy Secretaries for military operations, resource management, and evaluation. The DCAA would fall under evaluation; the DCA (DISA) would fall under military operations, and the DLA and DARPA would fall under resource management.

❖ Improve the control of Defense Agencies by not only reassigning those Agencies now reporting directly to the Secretary of Defense but also by removing Agencies reporting to lesser OSD officials. Two options were offered: 1) have some Agencies report to the Chairman of the Joint Chiefs of Staff, e.g., those with wartime support missions such as DCA (DISA), DLA, and the DIA; and 2) create an office within the Director of PA&E solely to review Agency program submissions.

President Reagan signed Executive Order 12526 on July 15, 1985, establishing the President's Blue Ribbon Commission on Defense Management, also known as the Packard Commission. It made significant recommendations in its interim report of April 1986.

The Commission's recommendation to streamline acquisition organizations and acquisition procedures had a major impact on Defense Agencies and future defense reform initiatives, including:

- Substantially reducing the number of acquisition personnel (consolidation of logistics and distribution functions and contract management personnel).

- Increasing the use of competition (outsourcing and privatization).

- Expanding the use of commercial products (privatization and outsourcing).

The President signed National Security Decision Directive (NSDD) 219 on April 2, 1986, directing that nearly all of the Commission's recommendations be implemented. The President also sent a message to Congress on April 24, 1986, to implement needed legislative changes.

The Goldwater - Nichols Department of Defense Reorganization Act of 1986 (PL 99-433), 1 October 1986, was the culmination of number of Congressional bills introduced in both houses of Congress to initiate defense reform. The Act provided the most comprehensive legislation on the organization and management of the Defense Department in nearly 30 years (Since the DoD Reorganization Act of 1958).

Title III of the Act required the Secretary of Defense to review the operations of the Defense Department and DoD Field Activities every two years to determine whether they were still needed and, if so, whether they met combat support requirements.

The Act designated six Combat Support Agencies: DLA, DIA, DMA (now NIMA), DCA (now DISA). (DCMA has subsequently been designated a Combat Support Agency (CSA.)) The Act directed the Chairman of the Joint Chiefs of Staff to submit periodic reports evaluating the responsiveness of CSAs. The Act left the Defense Agency concept and structure intact, but directed the Secretary of Defense to "conduct a study of the functions and organizational structure of the Defense Agencies and DoD Field Activities." The Office of the Secretary of Defense and each of the three Military Departments conducted the directed study and provided separate reports. The overall conclusions were that the Defense Agencies and Department of Defense Field Activities' organizational structure was the most effective, economical, and efficient configuration for satisfying the common service and supply requirements of DoD. The studies further concluded that the requirements in Title III of the Goldwater Nichols Act would help improve combat readiness and that a major cause for readiness problems was the lack of oversight, not organizational structure or the wrong assignment of missions and functions.

Table C-3. Goldwater-Nichols Act Provisions for Defense Agencies

Section 191: Secretary of Defense has authority to provide for common services and supply whenever he determines it would be more effective, economical, or efficient, common to Military Departments by a single Agency of the DoD

Section 192: The Secretary is to assign responsibility for the over all supervision of each Defense Agency:

- ❖ To a civilian officer within OSD listed in section 131(b) of Title 10.
- ❖ To the Chairman of the Joint Chiefs of Staff.
- ❖ The official assigned oversight shall advise the secretary on the extent to which program recommendations and budget proposals of such an Agency conform with the requirements of the Military Departments and the Unified and Specified Commands.

The Secretary shall establish procedures to ensure full and effective review of the program recommendations and proposals of each Agency.

Periodically and not less than every two years, the Secretary of Defense shall review the services and supplies provided from each Agency (excluding DIA and NSA) to ensure that:

- ❖ There is a continuing need for each Agency.
- ❖ The Agencies can provide those supplies and services more effectively, economically, or efficiently in meeting the requirements for combat readiness of the armed forces than could the individual Military Services.

Section 193: Periodically and not less than every two years, the Chairman of the Joint Chiefs of Staff shall submit a report to the Secretary on Combat Support Agencies to include:

- ❖ A determination with respect to the responsiveness of each Agency to support operating forces in the event of war or threat to national security, and any other recommendations that the Chairman considers appropriate.
- ❖ In preparing the report, the Chairman shall review the plans of each Agency with respect to its support of operating forces
- ❖ He shall provide for the participation in Joint Exercises and an assessment of their performance
- ❖ He shall develop, in consultation with the Director of each Combat Support Agency (CSA), a uniform system for reporting to the Secretary of Defense, the commanders of the Unified and Specified Combatant Commands, and the Secretaries of the Military Departments concerning readiness of each Agency to perform with respect to war or threat
- ❖ The agencies designated were the DLA, DIA, DMA (NIMA), DCA (DISA) and any others designated as CSAs. The NSA was to be evaluated only with respect to its combat support missions in support of DoD.

The Goldwater-Nichols Act also directed the Secretary of Defense, the Chairman of the Joint Chiefs of Staff, and the Secretaries of Military Departments to conduct a study of the functions and organizational structure of the Defense Agencies and Defense Field Activities.

1990 ...

The Secretary of Defense directed the DoD Study of the Military Commissary System and the assessment of the operational efficiency of the four Military Service commissary systems. The study concluded that a single, consolidated commissary organization offered important economies and efficiencies in the provision of commissary benefits to U.S. military personnel.

Secretary Richard Cheney's "Defense Management Report (DMR) to the President," July 1989, was an encompassing review of the defense acquisition system and the management practices of the Department of Defense. The implementation process for the DMR extended from 1990 to 1995.

An underlying principle of the DMR was to reduce costs by streamlining management structures, cutting excess infrastructure, eliminating redundant functions, and initiating standard business practices throughout the Department. A major focus of the DMR in achieving these objectives was the consolidation of acquisition and logistic support functions

Table C-4. Major Agency Functions Added under the DMR

Defense Logistics Agency:

Defense Management Report Decision (DMRD) 902 directed DLA to assume responsibility for all of the Military Services' materiel distribution functions, beginning in 1990. The consolidation of all of the Department's 30 supply and distribution depots to a single manager began in April of 1990 and was completed in March 1992. Since the consolidation of the supply and distribution depots, the DLA had reduced that number from 30 to 21 by 1997.[10] The personnel assigned to the distribution depots is 9082 for FY00, a total reduction of 22,449 personnel or over 70% since FY91.

DMRD 926 directed the consolidation of inventory control points (ICPs) of the Military Departments into a single Agency for the inventory management of consumable items. The ICP consolidation involved the transfer of over 980,000 consumable items and associated cataloging tasks from the Military Services to DLA. The transfer of the additional consumable items from the Military Departments to DLA was completed in 1994.

Creation of the Defense Contract Management Command under the Defense Logistics Agency (now the Defense Contract Management Agency).

DMRD 916 established the Defense Contract Management Command on February 26, 1990 and consolidated most of DoD contract administration services (CAS) at or near contractor's plants under a single organization. Since 1990, the DCMC has reduced personnel from approximately 26,000 to slightly over 12,000 in FY 2001. During that same time period, the DCMC has consolidated to a single headquarters, from 12 intermediate headquarters offices to 3 districts and from 144 contract management offices at 1200 locations to 67 contract management offices. DCMA now manages 325,000 prime contracts, valued at $850 billion (primarily Military Department major weapons systems acquisitions) performed by 23,000 contractors.

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[10] This number has increased to 24 with the transfer of additional OCONUS service depots in Japan, the Pacific and Europe.

Table C-4. Major Agency Functions Added under the DMR (continued)

Creation of the Defense Finance and Accounting Service:

DMRD 910 directed the consolidation of DoD accounting and finance functions under the Defense Finance and Accounting Service (DFAS). The DFAS was activated in January 1991. Through consolidation efforts, DFAS has reduced the number of sites from 338 in FY 1993 to 26 in FY 1998. DFAS now comprises its headquarters, with five centers and 20 operating locations reporting to the centers. Personnel have been reduced from over 31,000 to the current level of 18,000. DFAS has reduced the total number of financial information systems from 324 in 1992 to 109 in FY 1999.[11] In consolidating and standardizing policy and procedures, over 360 publications were streamlined into a single set of 15 volumes, which reduced the number of pages by 72%.

Defense Information Systems Agency assumes the role of the Defense Communications Agency and adds other functions

DISA was chartered in June 1991. In addition to continuing the functions performed by the DCA, DISA became responsible for many of the technical functions necessary to support the Corporate Information Management (CIM) Initiative[12] (see DMRD 924) and the implementation of the Defense Information Management Program. DMRD 918 designated the Defense Information Systems Agency (DISA) as the central manager of the Defense Information Infrastructure (DII) on September 15, 1992.

Creation of the Defense Commissary Agency

DMRD 972 directed the consolidation of all of the DoD commissary operations. The establishment of DeCA in May 1990 consolidated DoD commissary management headquarters and reduced 1700 overhead management functions above the store level (e.g. regions and districts), consolidated support functions, such as bill paying, contracting and automated data processing, and consolidated distribution functions, such as central distribution centers and transportation. During its first year of operation, over 1700 overhead positions at regional and headquarters levels were eliminated, resulting in $50 million in savings.[13] The consolidation of the Military Departments' commissary operations has reduced management headquarters personnel from its FY 1988 baseline of 859 FTE's to 243 FTE's in FY 2003, or a 71.7% reduction.

Consolidation of the Domestic Dependents Elementary and Secondary Schools (DDESS)

DMRD 964 directed that the DDESS organizations within the Military Departments be consolidated under the Office of the Deputy Assistant Secretary Of Defense (Family Support, Education, and Safety (DASD (FSE&S)) to eliminate duplicate fiscal and manpower functions.

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[11] DFAS Command Briefing FY 99.

[12] The primary objective of CIM is business process improvement by integrating and streamlining functional requirements to simplify business processes, improve the standardization, quality, and consistency of data, and eliminate duplicative business systems and supporting infrastructure. The use of information technology allows the adoption of more efficient and effective business area management practices to improve business operations.

[13] Secretary of Defense, "Annual Report to the President and the Congress", January 1993, page 34.

In 1992, the DoDDS headquarters in Arlington, VA, became the Department of Defense Education Activity (DoDEA). The Director, DoDEA, assumed responsibility for organizing, managing, and directing the DoDEA, DoDDS, and Section 6 schools. He was also responsible for supervising, administering, implementing, and evaluating policies and procedures for the DoDDS and Section 6 schools. The DoDEA was subordinate to the Office of the DASD (PSF&E), which had responsibility for management and oversight of dependent education, stateside and overseas.

In October 1993, DoD published a report in the Bottom-Up Review (BUR), which was a comprehensive study of national defense strategy, force structure, and resource requirements to meet post-Cold War missions. As part of this effort, the need to reduce infrastructure and support costs in order to maintain the force structure and pay for modernization needs in light of overall projected funding reductions was recognized.

The BUR study identified three methods to further reduce infrastructure costs – privatization and outsourcing, additional consolidations and expanded use of executive agents, and adoption of commercial business practices and incentives.

Section 952 of the National Defense Authorization Act for fiscal year 1994 established the Commission on Roles and Missions (CORM) to:

- Review the efficacy and appropriateness for post-Cold War era of the current allocations among the Armed Forces of roles, missions, and functions;

- Evaluate and report on alternative allocations of those roles, missions, and functions;

- Make recommendations for changes in the current definition and distribution of those roles, missions, and functions.

The Commission was directed to define broad mission areas and key support requirements and develop a conceptual framework for organizational allocations, including civilian elements of the Department of Defense. The CORM recommended that the Department look at restructuring Defense Agencies and DoD Field Support Activity management to improve responsiveness and reduce costs through the use of modern business practices, outsourcing, and reengineering processes.

Table C-5. Findings and Recommendations of the Commission on Roles and Missions (CORM)

The CORM found that, on balance, the efforts to centralize common functions have resulted in lowering overall costs.

It found there is a need to improve Agency responsiveness to customer requirements, better OSD management, and budget discipline.

❖ The CORM recommended establishing a Board of Directors to manage each of the Defense Agencies. Membership would include all major direct customers, the Joint Staff representing the CINCs, and private sector experts, and would be chaired by the appropriate OSD staff principal.

❖ A second option was to establish a Defense Support Organization (DSO) or Executive to provide direct management of the Defense Agencies.

The CORM observed that nearly a quarter of a million DoD employees[14] were engaged in commercial type activities that could be performed by competitively selected private companies. Specific Agency recommendations included:

❖ Outsource most DoD wholesale warehouse and distribution functions performed by DLA

❖ Outsource most of the other wholesale materiel supply management functions, including requirement determination, procurement, processing orders, and property disposal;

❖ Provide greater access to private medical care (TMA);

❖ Outsource much of the accounting and finance functions (DFAS);

❖ Outsource centralized DoD data center operations (DISA).

The CORM also observed that nearly 21,000 people are employed by Defense Agencies to administer and audit the Department's contracts with industry. The administration and auditing of these contracts was estimated to increase the cost of products by 18%[15]. Both organizations maintain large staffs in regional/contractor locations and national headquarters and would benefit from consolidation. The CORM also recommended that other DoD support functions that must remain in the government be "streamlined" through consolidations, and include the following:

❖ Streamline the centralized logistic support system by consolidating the five DoD logistics systems (DLA);

❖ Streamline acquisition organizations, which would have some effect on DLA, DISA, DCAA and DCMA (formally the DCMC);

❖ Streamline acquisition oversight, including the consolidation of DCAA and DCMA (DCMC).

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[14] DoD, Report on the Performance of DoD Commercial Activities, Washington DC, 30 January 1995, p5.
[15] The DOD Cost Premium: A Quantitative Assessment, December 1994, Coopers and Lybrand and TASC.

The recommendations of the Commission on Roles and Missions of the Armed Forces resulted in the Military Force Structure Act of 1996 (the National Defense Authorization Act for fiscal year 1997). Its major provisions:

- Established the Quadrennial Defense Review and the National Defense Panel.

- Section 901 of the National Defense Authorization Act for fiscal year 1996 (PL 104-106) directed that the Secretary of Defense: *"conduct a further review of the organizations and functions of the Office of the Secretary of Defense, including Washington Headquarters Service and the Defense Support activities, and the personnel needed to carry out those functions."* The assessment was to include, *"the appropriate size, number, and functional responsibilities of the Defense Agencies and other Department of Defense support organizations."*

The FY 1997 Quadrennial Defense Review: Section 923 of the National Defense Authorization Act for fiscal year 1997 directed that *"The Secretary of Defense, in consultation with the Chairman of the Joint Chiefs of Staff, to complete in 1997 a review of the defense program of the United States intended to satisfy the requirements for a Quadrennial Defense Review as identified in the recommendations of the Commission on Roles and Missions of the Armed Forces. The review shall include a comprehensive examination of the defense strategy, force structure, force modernization plans, infrastructure, budget plan and other elements of the defense program and policies with a view toward determining and expressing the defense strategy of the United States and establishing a revised defense program through the year 2005."*

The report was to assess the appropriate ratio of combat forces to support forces and the appropriate size of headquarters units and Defense Agencies for that purpose. The QDR report noted that while DoD had reduced active duty personnel by 32% since 1989, the personnel performing infrastructure functions had only been reduced by 28%. The QDR was intended to be the blueprint for revolutionizing business affairs and promoting a more efficient infrastructure.

Defense Reform Task Force: At the close of the Quadrennial Defense Review (QDR) in May of 1997, the Secretary established a task force on Defense Reform to take a closer look at defense infrastructure, including the management headquarters activities, for potential improvements in organizational structure and business practices. The Secretary of Defense in his annual report to the President for 1998 stated, *"As a result of the QDR the Department's plans and programs were changed to carry out this strategy. And as a result of the Defense Reform Initiative, undertaken as a follow-on to the QDR, the Department's organizational structure and business practices also are being changed to reflect and carry out this strategy.*

The Defense Reform Initiative (DRI) report issued in November of 1997 was intended to be the strategic blueprint for the Department to reduce overhead and apply the resultant savings to modernization and quality of life requirements. The DRI provided a comprehensive approach for DoD to adopt better business practices, streamline organizational structures and functions, consolidate redundant functions, and reduce excess infrastructure.

Table C-6. The Defense Reform Initiatives

The DRI is an ongoing process intended to 1) reengineer business processes; 2) consolidate and reorganize DoD's headquarters elements, including the Office of the Secretary of Defense; 3) compete DoD's commercial activities and outsource these functions; and 4) initiate additional rounds of base realignments and closures. The DRI outlined a series of improvements to streamline, reduce, or eliminate DoD management headquarters organizations and personnel including OSD, the Joint Staff, Defense Agencies and the DoD Field Activities.

The Defense Management Council: The Council was established in November 1997 to oversee the progress in achieving defense reform. The Defense Management Council (DMC) was chaired by the Deputy Secretary of Defense and includes representatives from OSD, the Joint Staff, and the Military Departments. The DMC served as the Secretary's primary mechanism for ensuring that the reform initiatives are carried out. Duties of the Council are to:

- ❖ Consult with business leaders seeking new solutions to management problems, reengineer business practices, and streamline operations;
- ❖ Recommend major reforms, ensuring the implementation of reform measures;
- ❖ Ensure that the Defense Agencies are adopting new, innovative, and more efficient ways to accomplish their missions;
- ❖ Negotiate performance "contracts" with the heads of Defense Agencies, and monitor their performance against those contracts;
- ❖ Monitor progress toward implementing needed business changes;
- ❖ Monitor progress toward implementing of A-76 private-sector competitive evaluations.

Defense Reform Initiative Directives (DRIDs) were implemented to direct specific actions. Examples of specific Defense Agency actions are summarized below.

Defense Agency Performance Contracts: DRID #23 established annual performance contracts between the Directors of designated Defense Agencies and DoD Field Activities (all non-intelligence agencies, the Defense Health Program, and DoD Education Activity); and the Principal Staff Assistants (PSAs) responsible for the respective Agencies or Activities and the Deputy Secretary of Defense. The DRID also established the terms of reference for a Task Force of the Defense Management Council (DMC) to oversee development and review of the performance contracts.

Defense Finance and Accounting Service:

- ❖ Overseas Military Banking Program (DRID #7). Assigned responsibility for the oversight, control, and management of the day-to-day operations of the Department of Defense Overseas Banking Program from Under Secretary for Defense (Comptroller) to DFAS.
- ❖ DFAS is the program manager for the International Merchant Purchase Authorization Card (IMPAC), providing full post-award support for the DoD Credit Card Program. DFAS is also responsible for the planning, execution and monitoring of the Department's travel card program, and management of the DoD Leadership and Management Program.

Table C-6. The Defense Reform Initiatives (continued)

The Defense Threat Reduction Agency (DTRA): DTRA was established to provide for a more focused response to the new security challenges identified in the Quadrennial Defense Review and the National Defense Panel. The mission of the Agency is to reduce the threat from nuclear, biological, and chemical (NBC) weapons and other conventional weapons. The consolidation included the On-Site Inspection Agency, the Defense Special Weapons Agency, the Defense Technology Security Agency, and certain functions of the Assistant to the Secretary of Defense for NBC Defense programs.

The Defense Information Systems Agency (DISA): DISA is continuing to reduce its infrastructure and absorb new missions. With significant increases in mission workload, DISA has reduced its total Agency civilian work force by 26% from FY 1995 to FY 2000. The percentage of DISA management headquarters staff to the total Agency workforce has decreased from 7.6% to 3.3%.

❖ Between FY 1995 and FY 1998, DISA's missions have increased, requiring an additional 600 military and civilian personnel. The new missions include the establishment and operation of a DoD Continuity in Operations and test information processing facility, and providing command, control, and communications support for U.S. counter-drug efforts.

❖ DRID 3 assigned DISA the authority to provide supervision and management control of the Defense Technical Information Center (DTIC) and initiate studies to improve efficiencies by opening functions currently performed by DTIC to competition with the private sector.

❖ DRID #31 and DRID #38 directed DISA to establish an office of spectrum analysis and management and a Joint Spectrum Center, assign appropriate resources to coordinating joint spectrum matters, and assist the OASD C3I in strategic spectrum planning.

Defense Logistics Agency (DLA): The DLA has been assigned a number of new missions under the Defense Reform Initiative. The Agency continues to reduce infrastructure and management headquarters personnel. The Agency will reduce the management headquarters staff from 1018 military and civilian personnel in FY 1997 to a total of 854 military and civilian personnel, or a 16% decrease in management headquarters staff. Since 1989, DLA will have reduced its management headquarters staff by over 57%, while continually receiving new missions and operating personnel. Some of the new missions received by DLA as a result of the Defense Reform Initiative are the following:

❖ DRID 19 assigned DLA responsibility for the oversight, control, and management of the day-to-day operations of the Defense Property Accountability System (DPAS). DPAS provides financial control, and generates information to account for most of the government-owned property, plant, and equipment under DoD.

❖ DRID 21 redesignated the Defense Fuel Supply Center as the Defense Energy Support Center expanding the mission to include the consolidation of the Department's regional energy efforts of total energy management and the privatization of utility related infrastructure.

❖ DLA was assigned management of the Defense Automated Printing Service (DAPS) in FY 1997, including the transfer of 2000 personnel from the Navy. Since the transfer, DPAS business regions have been reduced from 8 to 4, and printing service facilities have been reduced from 350 to 297.

❖ DLA has assumed responsibility for DoD cataloging functions in FY 1997. Approximately 700 personnel will be transferred from the Services to DLA in FY 2001.

Table C-6. The Defense Reform Initiatives (continued)

Defense Security Cooperation Agency (DSCA) (DRID #40): The Defense Security Assistance Agency (DSAA) was re-designated the Defense Security Cooperation Agency (DSCA) on 20 May 1998 to better reflect the Agency's diverse functions and interrelationships with other Federal Agencies, the private sector, and foreign governments. DSCA provides direction, supervision, and oversight of the DoD security cooperation **programs**. The Defense Reform Initiative has transferred several missions and program management functions, including humanitarian assistance, de-mining, and armaments cooperation that have expanded on the Agency's traditional security assistance missions.

- ❖ DRID 12 transferred the program management and implementation functions of the Humanitarian Assistance and Humanitarian De-mining Programs to the DSCA.
- ❖ DRID 34 transferred the Warsaw Initiative (Partnership for Peace) program management functions to the Defense Security Cooperation Agency.
- ❖ DRID 40 transferred responsibilities for program management for Armaments Cooperation Programs, Export Loan Guarantee Program, and Foreign Cooperative Testing (FCT).

The Defense Commissary Agency (DeCA): DRID 37 assigned oversight of the Defense Commissary Agency to the Commissary Operating Board, composed of representatives of the secretaries of Military Departments. The Board will advise on prudent operation of DeCA and the commissary system, and assist in its overall supervision.

DRID 2 established the Defense Security Service (DSS) on 25 November 1997, consolidating the DoD Polygraph Institute, the Personnel Security Research Center, the DoD Security Institute, and the Defense Investigative Service.

DRID 14 established the TRICARE Management Activity as a DoD Field Activity on 5 January 1998, consolidating the TRICARE Support Office, the Defense Medical Programs Activity, and health management functions that had been performed in the office of the ASD for Health Affairs.

Defense Contract Management Agency (DCMA): The DCMA (formerly the Defense Contract Management Command under the DLA) was established on March 27, 2000 as a Defense Agency and designated as a Combat Support Agency. The DCMA manages 325,000 contracts, including all Acquisition Category (ACAT) 1 and 2 major weapons systems programs for the Military Departments. These contracts are valued at $850 billion and are performed by 23,000 contractors. The Agency is also responsible for the acceptance of approximately 1100 aircraft per year from industry; providing contract administrative services for over $92 billion in government-owned property; and administration of approximately $12 billion in annual progress payments for in-process work performed by DoD contractors.

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14. ABSTRACT

This report summarizes the findings of a study performed by the Institute for Defense Analyses to advise the Deputy Secretary of Defense regarding Defense Agency management issues that warrant the attention of DoD's senior leadership in preparation for the FY 2001 Quadrennial Defense Review. The study covered fourteen of the Agencies, which in total account for 20 percent of DoD's budget. IDA assessment teams met with Agency officials, review Agency plans and programs, interviewed Agency customers, and examined available information on Agency performance. The report provides a comprehensive review of each Agency's mission, history, management initiatives, and performance. We find that the current assignment of functions to the Defense Agencies is consistent with DoD's missions and policies. At the same time, fixing five DoD-wide management problems would improve the performance of DoD support functions, strengthen working relationships between the Agencies and their customers, and yield significant savings. Needed initiatives for making these changes are described

15. SUBJECT TERMS

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